



AGENDA

NORTH CAROLINA 911 BOARD MEETING

April 22, 2016

Banner Elk Room

3514A Bush Street

Raleigh, NC

10:00 AM – 12:30 PM

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<u>Tab</u>	<u>Topic</u>	<u>Presenter</u>	<u>Time (min)</u>
	Call To Order	Chris Estes	
	Roll Call	Richard Taylor	5
1.	Chairman's Opening Remarks ~ Recognition of Kim Twiddy, Telecommunicator, Dare County Sheriff's Dept. – Communications Division	Chris Estes	10
2.	Ethics Awareness/Conflict of Interest Statement	Chris Estes	5

In accordance with G.S. 138A-15, It is the duty of every Board member to avoid both conflicts of interest and potential conflicts of interest. Does any Board member have any known conflict of interest or potential conflict of interest with respect to any matters coming before the Board today? If so, please identify the actual or potential conflict and refrain from any undue participation in the particular matter involved.

3.	Consent Agenda (<i>vote required</i>) (Complete Reports Located in Agenda Book On Web Site)	Richard Taylor	10
	a) Minutes of March 18, 2016 Board Meeting		
	b) PSAP Liaison Report		
	c) Network Specialist Report – Tina Bone		
	d) Network Specialist Report - Corn		
	e) Update On 2014/2015 Revenue Expenditure Reporting		
	f) Grant Project Updates		
	g) Grant Fund Balance \$ 1,408,343		
	1) Grant Fund Encumbered \$ 31,454,159		
	h) NG911 Fund Balance \$ 2,034,823 **		
	<i>**NG911 Fund Balance is Only Estimated At This Time Due To Reporting Issues Establishing The New Account With OSC (Office of State Controller)</i>		
	1) NG911 Fund Disbursements \$ 0.00		

- i) CMRS Fund Balance \$ 2,216,756
 - 1) CMRS Disbursements \$ 3,090,031
- j) PSAP Fund Balance \$ 13,260,585
 - 1) PrePaid CMRS Revenue \$ 716,907

4. Public Comment

Chris Estes

The NC 911 Board welcomes comments from state and local government officials, first responders, finance directors, 911 directors, citizens and interested parties about any 911 issue(s) or concern(s). Your opinions are valued in terms of providing input to the NC 911 Board members. When addressing the Board, please state your name and organization for the record and speak clearly into the microphone.

Speakers:

- | | | | |
|-----|---|---|----|
| 5. | Executive Director Report
a) Update On Telecommunicator Certification Discussions | Richard Taylor | 10 |
| 6. | Proposal From CGIA On Statewide Orthography
Project As A Statewide Grant
(vote required) | Tim Johnson
Executive Director
CGIA | 20 |
| 7. | Standards Committee Report
a) Rules Review Status
(vote required) | Laura Sykora
Richard Bradford | 10 |
| 8. | 911 Funding Committee Report
a) Funding Reconsideration Request <ul style="list-style-type: none"> i. Town of Holly Springs ii. Guilford-Metro 911 iii. Randolph Co 911 (vote required for each)
(b) Presentation of FY17 Budget
(c) Recommendation For Award of Interpretive Services RFP
(vote required) | Jason Barbour | 40 |
| 9. | NG911 Project Update
a) Discussion on NG-911 RFP
(vote required) | Jeff Shipp | 30 |
| 10. | Status of Back-up PSAP Compliance | Richard Taylor | 5 |

Other Items

Adjourn

Next 911 Board Meeting and Work Session

May 20, 2016
Charlotte Fire Department Headquarters
500 Dalton Ave.
Charlotte, NC

911 PSAP Funding Sub-Committee

Wednesday, April 27, 2016
1:30 pm
Emerald Isle Room
3514A Bush Street
Raleigh, NC

911 Funding Committee

Tuesday, May 3, 2016
1:30 pm
Banner Elk Room
3514A Bush Street
Raleigh, NC

911 Education Committee

Wednesday, May 4, 2016
1:30 pm
Banner Elk Room
3514A Bush Street
Raleigh, NC

911 Standards Committee

Wednesday, May 11, 2016
10:00 am
Banner Elk Room
3514A Bush Street
Raleigh, NC

NG911 Committee

Thursday, May 12, 2016
2:00 pm
Banner Elk Room
3514A Bush Street
Raleigh, NC

GIS Sub-Committee

Tuesday, May 24, 2016
10:00 am
Emerald Isle Room
3514A Bush Street
Raleigh, NC

Ethics Awareness/Conflict of Interest Statement

Chris Estes

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Does any Board member have any known conflict of interest or potential conflict of interest with respect to any matters coming before the Board today?

If so, please identify the actual or potential conflict and refrain from any undue participation in the particular matter involved.

Consent Agenda

Richard Taylor

(vote required)

(Complete Reports Located in Agenda Book On Web Site)

**North Carolina 911 Board
MINUTES
Hampton Inn
1382 Highway 258 South
Kinston, NC
March 18, 2016**

<u>Members Present</u>	<u>Staff Present</u>	<u>Guest</u>
Jason Barbour (NCNENA) Johnston Co 911 (911 Board Vice Chair)	Tina Bone (DIT)	Ron Adams-Southern Software
Dave Bone (NCACC) Martin Co	Richard Bradford (DOJ)	Randy Beeman-CCES
Darryl Bottoms (NCACP) Pilot Mountain PD (WebEx and phone)	Dave Corn (DIT)	Roger Dail-Lenoir Co
Eric Cramer (LEC) Wilkes Communications	David Dodd (DIT)	Shelley Davis-Hickory PD Comm
Rick Edwards (CMRS) Sprint	Karen Mason (DIT)	Brian A. Drum-Catawba Co 911
Chris Estes (911 Board Chair) (WebEx and phone)	Marsha Tapler (DIT) (WebEx and phone)	Paige Johnson-Lenoir Co
Andrew Grant (NCLM) Town of Cornelius (WebEx and phone)	Richard Taylor (DIT)	Jerri King-Lenoir Co
Len Hagaman (Sheriff) Watauga Co		Tim Mitchell-CCES
Greg Hauser (NCSFA) Charlotte Fire Department		Melanie Neal-Guilford Metro 911
Dinah Jeffries (NCAPCO) Orange Co Emergency Services (WebEx and phone)		Nicole Sain-Hickory PD Comm
Robert Smith (LEC) AT&T		Michael Speciale-NCGA
Jeff Shipp (LEC) Star Telephone		Candy Strezinski-Iredell Co 911
Jimmy Stewart (NCAREMS) Hoke Co 911		Victor Williams-Beaufort Co S.O.911
Slayton Stewart (CMRS) Carolina West Wireless		Rick Youngs-New Bern PD
Laura Sykora (LEC) CenturyLink		
Buck Yarborough (VoIP) TWC		
<u>Members Absent</u>	<u>Staff Absent</u>	<u>WebEx Guest Attendees</u>
Rick Isherwood (CMRS) Verizon		David Boggs-Apex PD
		Cliff Brown-Federal Engineering
		Byron Burns-CRS
		Derrick Duggins-CRS
		Del Hall-Stokes Co EC
		Grant Hunsucker-Montgomery Co ES
		Jim Lockard-Federal Engineering

		Jesus Lopez-DIT
		Philip Penny-MCP (NCNENA)
		Tonya Pearce-DECC
		Dianne Raynor-Harnett Co S.O.
		Corinne Walser-Medic911
		Stephanie Wiseman-Mitchell Co 911
		Donna Wright-RCES

1. Chairman's Opening Remarks

Before the meeting convened, 911 Board Executive Director Richard Taylor explained that Chairman Estes would be attending the meeting remotely as a meeting in Charlotte later in the day precluded his physically attending this one. Mr. Taylor explained that Vice-Chair Barbour would be Chairman Estes' eyes and ears in the room as Chairman Estes conducted the meeting remotely. Board Counsel Richard Bradford had been delayed by traffic, so the meeting was delayed a few minutes to accommodate his arrival.

Once all was ready, Chairman Estes welcomed all to the meeting and introduced Lenoir County Board of Commissioners Chairman Craig Hill to offer some opening remarks. Chairman Hill welcomed everyone, saying "Thank you for all you do in reference to our 911 centers across the state," observing that has certainly made our communities much safer. He expressed appreciation for the grant that allowed for consolidation of the Jones County and Lenoir County PSAPs and the creation of a back-up center, saying it has made a tremendous difference. He closed by saying "We appreciate the work that all of you do; you make a difference every day." He added if he could be of any help to anyone during their visit to please let him know.

Mr. Taylor responded that Roger Dail and his staff had been superb hosts, adding that several people went by the PSAP yesterday afternoon and were very impressed by the fact it was empty; it was a beautiful center, but not a single person was to be found. Then he dropped the other shoe, saying that was because operations that day were being conducted at the backup PSAP in Jones County. He offered that the partnership between Jones County and Lenoir County has been phenomenal, and that the Board was glad to have played a small part in that, but stressed that Lenoir County's great leadership, both on its Board and through Roger Dail and his staff, deserve the credit.

Chairman Estes asked Mr. Taylor to call the roll of Board members attending remotely. Andrew Grant did not respond at this time, but did join the meeting later; Dinah Jeffries responded she was online. Chairman Estes apologized for his absence in the room, citing his need to be in Charlotte for an afternoon meeting, and added that he had asked Vice-Chair Barbour to be his eyes and ears in the room, and if necessary, to take over the meeting if the remote connectivity should fail. He added it was interesting to attend the meeting remotely and personally experience what that is like.

Chairman Estes recognized guest Mike Speciale, NCGA representative for Craven, Pamlico, and Beaufort Counties, asking if he would like to make any remarks. Rep. Speciale said he was good, and appreciated what the Board does. Chairman Estes thanked him for attending, saying he looked forward to any feedback he might have for the Board at a later time.

2. Ethics Awareness/Conflict of Interest Statement

Chairman Estes read the ethics awareness/conflict of interest statement printed on the agenda and asked Board members to indicate if they felt they had any conflict or potential conflict of interest with any of the matters scheduled to come before the Board today. Rob Smith said he would recuse himself from voting on all items in agenda item 9a except Davie County. Laura Sykora said she will refrain from voting on

Davie County and Rutherford County in that same agenda item 9a. Chairman Estes asked if there were any further conflicts, and Mr. Smith asked if he could direct a question to Board Counsel Richard Bradford regarding agenda item 9b, determining the 911 fee for FY2017. He asked if there would be a conflict with that item since the company he represents (AT&T) was a participant in the RFI for the NextGen project and expects to participate in the RFP process for the same project, which will be funded by collection of the fee. Mr. Bradford replied there is not a conflict. He observed that while each Board member has an obligation to avoid direct conflict, this is a general fee applied across services from which it is collected, so there is no direct conflict. Greg Hauser indicated he will be recusing himself from agenda item 9a, the funding reconsideration request for CMPD-Charlotte Fire. Dave Bone then noted he will be recusing himself from agenda item 9av, Vance Co-Henderson. Chairman Estes then reminded Board members that if they become aware of any during the meeting, they were welcome to bring them up at that time.

Vice-Chair Barbour requested that agenda item 9 be moved ahead of item 8 in the order of consideration, saying he believed that item may consume more time than the twenty minutes allotted to it. Chairman Estes asked if there were any objections to that change, and hearing none, said he would support it.

3. Consent Agenda

Mr. Taylor noted an error had been discovered in the minutes for the February 26 meeting. Greg Hauser cited the error near the bottom of page 4, saying he does not work in a PSAP that handles all three dispatch disciplines, whereas the minutes indicated he did work in such an environment. Mr. Taylor noted the correction, and asked if anyone had any other corrections to offer before he moved on. Hearing none, he moved on to the funding report, citing the numbers which appeared in the agenda book. He noted that several grants from 2012 and 2013 will be closing out soon, and that the current encumbered grant fund balance is \$32,207,133.33, with an unencumbered balance of \$1,387,336.60. He solicited any questions about that, and Ms. Sykora asked if some funds are being left over as completed grants close out. Mr. Taylor said yes, adding they go back into the grant fund to be used for this year's (FY17) grants.

Moving to the NG911 fund, Mr. Taylor reported a current fund balance of \$631,260.40, noting the fund did accrue interest last month in the amount of \$329.98. He added there still have been no expenditures from this fund to date. Ms. Sykora pointed out the \$631,260.40 represented February revenue, and asked if it shouldn't be added to the \$578,782.48 collected in January for a current *total* balance of \$1,210,042.88. Mr. Taylor agreed that was the case, thanking Ms. Sykora for pointing that out.

The CMRS fund was next on Mr. Taylor's report, with a balance of \$4,600,401.29 after disbursements this month of \$452,663.30.

Mr. Taylor observed that PrePaid CMRS fund revenue contributed \$821,413.47 to the PSAP fund for the month, and when coupled with other revenue yielded an end of month total of \$12,286,507.28 after disbursements of \$4,146,495.24.

Chairman Estes asked if there were any questions for Mr. Taylor regarding the Consent Agenda, and hearing none, entertained a motion to accept the report. Jeff Shipp so moved, Laura Sykora seconded, and with no further discussion the motion passed unanimously.

4. Public Comment

Observing that the Board is always anxious to hear comments from the public regarding its work, Chairman Estes asked if anyone present, either in person or participating remotely, wished to address the Board during the public comment portion of the meeting. Victor Williams, 911 Director for the Beaufort County Sheriff's Office and the Eastern Representative for NCNENA, stepped to the podium to report on the 911 Goes to Washington effort mounted this year by NCAPCO/NENA. He found it to be a very rewarding experience, and said that the most important thing he learned was to get the word out to PSAP managers to invite their elected local, state, and federal representatives to visit PSAPs, from small to large and everything in between. He stressed this because he feels those elected officials need to know what happens at the PSAPs and why PSAP funding is so critical, especially for the smaller PSAPs with fewer resources than larger ones may have access to.

Vice-Chair Barbour asked if anyone else wished to speak, and when no one spoke up, Chairman Estes asked Mr. Taylor to move to the Executive Director Report.

5. Executive Director Report

a) Update on Regional PSAP Managers meetings

Mr. Taylor began his report by noting the PSAP Managers Meeting for the southeast region had been held here yesterday, which was the last of the four spring regional meetings. He thanked Board members who had attended any of the four meetings, observing that the PSAP managers really appreciated their attendance. He displayed photos of the attendees at each of those meetings, offering a brief synopsis of each as he did.

Ms. Sykora asked if there were any consistent themes among the four regions, e.g. questions and/or concerns. Mr. Taylor replied he thought the most consistent one was staff retention and training of 911 telecommunicators (TCs). He said the turnover rate among TCs is just unbelievable, and PSAP managers and 911 Board staff have been trying to identify a common thread, whether it's the demands of the job, the stress of the job, etc. He observed pay didn't seem to be that big of a contributing factor in yesterday's discussions, but staffing numbers did seem to be. Greg Hauser said that although they didn't devote much time at the meeting to discussing the pay issue because of the time spent on the others, he nonetheless does think that it plays a significant role. Rick Edwards said there was a lot of discussion yesterday about the millennial generation and their expectations in the workforce being somewhat different than those of us from earlier generations.

Mr. Taylor reminded everyone that the smaller the PSAP, the more is expected of the PSAP managers; they seldom wear just one hat. When staffing and people issues pile up on top of all the other things a manager has to contend with, it becomes a real burden. He shared that one of the things the Education Committee is working on is a PSAP Managers training class because we find that the managers in most of the smaller PSAPs are there just because they were the next person in line when a vacancy arose, not because they've been trained for it. He said he and Roger Dail have had a conversation about one of the neighboring PSAPs' director because that person is completely lost; he's a super guy, nice to get along with, but has been thrown into a position where he has to make decisions that he has not been prepared to make.

Mr. Taylor observed another common theme is the amount of drama that goes on among employees within a PSAP, and that type of personnel issue makes it even tougher on the manager.

b) Update on FY2017 Grant Program

Mr. Taylor was unable to locate the slides he had prepared for the Grant Program update, but said he just wanted to let the Board know that the FY2017 Grant Application Process opened last Monday, and will be open for 90 days, or until June 6th. He related that in the past an applicant had to have an NCID to make application, and the application was only available online, so when people needed to stop and come back to complete it at a later date, problems could arise regarding lost data, etc. With that in mind, he said he has taken the Easy Button concept to the Grant Application Process, with no NCID requirement and a Microsoft Word application form, complete with fill-in-the-blanks functionality, that can be saved locally and accessed easily to work on prior to completion. He said his hope is that it will be much more intuitive and user-friendly than in the past.

Mr. Taylor reminded everyone of the legislative changes which now allow grants to be used to fund anything that will enhance the 911 system; it no longer has to be something that's qualified on the eligible expenditure list. Chairman Estes said that is great news, and congratulated the staff for making it easier for the PSAPs to apply. Ms. Sykora said she had looked at the application form in the agenda book and it is, indeed, truly fill-in-the-blank, and she offered the same congratulations as Chairman Estes had. Mr. Taylor admitted it took a while to get it to work right, and it is still not compatible with Apple products that do not have Active-X functionality, so he does have that disclaimer in the instructions.

Jeff Shipp asked Mr. Taylor to touch on some of the comments he made yesterday to the PSAP Managers group regarding the competitive nature of the grants, comparing this year's potential funding to last year's program. Mr. Taylor said he tried to encourage each of the PSAPs to apply, but to understand these are competitive grants. He related that last year there were twenty-three applications, but the Grant Committee was only able to award three. He said there was only about \$9M to work with last year, but the total amount requested by those twenty-three applicants totaled over \$64M. He encouraged PSAP managers to think about what they are writing; "We want to serve our public better" is not good enough; the fact that you work under a Sheriff does not necessarily qualify you as a rural PSAP; you've got to really look at those questions and give a good answer. He noted we're not looking for the fluff—we're looking for the meat. He said he also encouraged them to understand that we're going to be looking to see if their backup plan has been submitted and their revenue-expenditure reports are complete. Mr. Taylor said he expects \$9-10M to be available this year, but it may be the last year that much will be available given the Next Gen project expenses that will be coming up next year.

Chairman Estes thanked Mr. Taylor for his report, then Dinah Jeffries asked if she could speak, so he turned the floor over to her. She said she wanted to go back to one thing about the PSAP Managers meetings. She noted that during the last Board meeting we had gone over the Board's goals for FY2017, and had discussed how TC certification was cited as being one of the primary concerns the PSAP Managers had expressed at their meetings. She asked if there was any way hiring and retention could receive similar priority as a goal. Chairman Estes noted that had been one of his concerns about naming a single goal as "Goal Number One", as he feels all the goals are important to the Board. He then asked Mr. Taylor to respond to Ms. Jeffries' question, and Mr. Taylor said he completely understands and agrees with her. He said his only reason for ranking the goals was to give them a spot on the list. He acknowledged that although certification is very important, it is not going to happen overnight; it's going to require a great deal of work. He added he thinks the training and trying to help educate PSAP Managers is equal in importance, because so many PSAP managers are out there struggling and trying to find answers. He said Education Committee Chair Jimmy Stewart and David Dodd have had a subcommittee working on developing a forty-hour curriculum for PSAP managers, and part of that curriculum will be devoted to staffing and retention.

6. NG911 Project Update

Chairman Estes next asked Jeff Shipp to provide an update on the NG911 Project. Mr. Shipp reported the committee did meet on Thursday, March 10th, to discuss continuing work on the ESINet piece of the conceptual design as well as the NMAC. He said they still have work to do to complete the CPE or switch portion of the conceptual design, and they do have another meeting scheduled for April 14th, when they will finish up the review and finalization of the conceptual design and also review what will be in the first RFP. He pointed out to Chairman Estes that they will need an extended amount of time at the next Board meeting, when the committee and staff will review the entire conceptual design and present the first RFP to the Board. Chairman Estes instructed Mr. Taylor to make sure the agenda for that meeting allows for the extra time that will be required, to which Mr. Taylor readily agreed.

Chairman Estes then asked if the presentation of the RFP will require a closed session meeting, and Mr. Bradford said it will not; the intent today is such that a closed session will not be required, which of course means that the details of an RFP will not be disclosed. He said the goals of the RFP and so forth may be up for discussion, but not the text itself. Ms. Sykora mentioned that at the last Board meeting there was discussion about having meetings with potential vendors before the conceptual design was finalized, and asked Mr. Shipp if that is still on track. Mr. Shipp said it is not, that at the last committee meeting they decided that was not necessary. Vice-Chair Barbour asked what led to that decision, and Mr. Shipp asked Mr. Bradford to respond to the question.

Mr. Bradford replied that in preparation for that discussion, both he and Mr. Taylor had asked for sample questions, having similar concerns, although perhaps for different reasons. He noted that after looking at the questions it did not appear that they were of a nature to expand the staff's knowledge in order to draft a better RFP, and for that reason, there was not a need to hold those meetings. He added that in other similar circumstances agencies have followed that path, where they've met with potential vendors to ensure that they understood details associated with technology, but based upon the information that has been prepared to date, he said he can assure the Board there is a great level of knowledge and detail

already present among staff and members of the Federal Engineering (FE) team. Mr. Bradford offered he is quite certain all of that will be brought to bear during the RFP evaluation process, so there was not really a need to meet with the vendors; that step also would have slowed the process down. He concluded he thinks it is very likely that the RFP will be fully prepared and the Board will be able to have that posted and move forward with the procurement process following the next Board meeting.

Ms. Sykora next observed she thought we were going to look at the conceptual design at the April meeting and then the RFP at the May meeting, and Vice-Chair Barbour added that was also his understanding. Mr. Shipp said they will be able to handle it all at the April meeting, keeping in mind that the committee has a design through this of what the committee members, as a committee, foresee as the conceptual design, and once the RFP is released, it's up to the vendors to present their designs to provide the solutions the committee is seeking.

Vice-Chair Barbour said that he just wants to "sleep on" the goals before he votes on an RFP and it sounds like the committee is not going to present the goals of the RFP *until* the April meeting. He said he doesn't know that it's fair to expect the Board to turn around in just a few minutes to approve an RFP when its members have just been presented with the goals of the RFP. Mr. Shipp replied the Board approved the Concept of Operations back in December, which is the concept of the whole, keeping in mind, once again, it is the vendors who will be providing the solutions. Vice-Chair Barbour still feels he won't know what he's voting on.

Mr. Taylor asked if Vice-Chair Barbour has looked at the Concept of Operation, and Vice-Chair Barbour said he had, in December, and Mr. Taylor offered that is essentially what the RFP will say. Mr. Bradford suggested there are many ways to approach an RFP, one of which, as he would suggest is the case here. Essentially that we have a Concept of Operations document which the Board has seen and approved. He said that becomes a resource document for both the Board, the staff, and the vendor community for looking at any RFP that comes out of the NG911 effort. He offered that for a particular RFP, there would be a statement of objectives, or SOO, and that's appropriate here where for a particular RFP you describe all of the objectives to be achieved, noting all of that is available in the Concept of Operations. From that, he suggested the only real issue is whether it includes these objectives or does not, pointing out that the objectives have not changed—the objectives remain the same and the goals remain the same. He explained the goals or objectives for a specific RFP are just simply a sub-set, that's all. Mr. Bradford offered that other states have taken an approach where they do what is typical for state government and they have a lot of requirements, while observing Dave Corn and others on the team have been quite diligent collecting that kind of information from around the country. Mr. Bradford said he has looked at some of those also, that there are different ways to approach this, and preparing that is what we're in the process of doing now.

Mr. Shipp asked everyone to keep in mind the first RFP will be for the ESINet and CPE switch, and the plan is for the second RFP at a later date to be for the NMAC and potentially a third RFP for the hosted CAD and GIS solution. Chairman Estes observed the NG911 Committee meetings are scheduled, and encouraged Board members to participate in those if they can or talk to Mr. Shipp offline about their ideas. Mr. Shipp concurred, reiterating their next meeting is on April 14th at 10:00 AM. Chairman Estes asked if there were any further questions for Mr. Shipp, and hearing none moved to the next agenda item.

7. Status of Back-up PSAP Compliance

Tina Bone referred everyone to the map Mr. Taylor had projected onscreen, noting it is the most current graphic representation of the status of PSAP Back-Up Plan Compliance. She reported that out of 119 PSAPs, we have 38 approved backup plans (yellow on the map), 37 that are in progress (blue on the map). She explained "in progress" means they have actually submitted a plan, and staff is either still communicating with the PSAP, waiting for questions to be answered, or quotes have been sent to Marsha Tapler for the financial elements to be approved. She said PSAPs in the 44 counties on the map in white have not submitted any type of plan, draft, or the like, although they may have sent her an email telling her they're working on it. She observed that is not the same as submitting a proposed plan.

Ms. Bone said she wanted to point out that in looking over some of these plans staff has seen that prices, such as those for laptops with telephone software have gone up about \$5K in the last three months, evidently indicative of supply and demand market pressures. She related that the laptops PSAPs are

wanting to purchase are now around \$24K apiece. When you have a seven or eight seat PSAP, that's a lot of money. Chairman Estes interjected that he thought the Funding Committee had approved an amount they would pay for various devices, capped at a rate, and asked if he was remembering that correctly. Mr. Taylor replied that is correct regarding a desktop unit, but the portable call taking laptops include phone system and call taking software, so he surmised it is not necessarily the equipment cost that is driving the price as much as the software cost, which has increased considerably.

Ms. Bone added that some of the PSAPs which have approved plans have not necessarily implemented those plans, and she can think of a couple that are actually planning to do something different from their approved plan. She said she's not sure how staff is going to handle that, adding that the vendors don't appear to be in a hurry to satisfy all the quotes because they are over-burdened by the sudden upsurge in demand. She speculated we're probably going to see many PSAPs requesting an extension.

Mr. Taylor said one thing he wanted to add to what Ms. Bone is saying is to thank Dave Bone for sending out a message to his colleagues in the county commissioners group, emphasizing they please contact staff for any assistance they may need. He said people are still getting a lot of misinformation, despite all our outreach efforts, offering by way of example that he received a call from one city councilman last week who was telling him that unless we gave them the money to build a building they just weren't going to comply. That councilman said he couldn't believe we were going to make them build another building, and Mr. Taylor explained to him that is exactly the opposite of what we want them to do. The councilman insisted that is what he had been told he would have to do, so Mr. Taylor and Ms. Bone have scheduled a meeting with that councilman and his city manager and some of their PSAP folks on Monday to refute that misinformation. Mr. Taylor remarked that after he told the councilman what was really expected of them, the gentleman said that was a no-brainer, it would be an easy thing to do.

Mr. Taylor observed that people shouldn't over-think this, adding he believes that sometimes folks *want* to get a new building and are hoping to leverage this mandate to do that, but as we all know, it certainly is not a requirement for a backup PSAP; we would much rather see PSAPs work together to devise creative solutions which are more cost-effective and benefit all participants. He reminded all that we fight that battle continually, no matter how much education we put out there, and again thanked Mr. Bone for his efforts to combat misinformation.

Dave Bone said he wanted to highlight that Andrew Grant has been a part of that effort as well, the two of them working collaboratively to get the message out to their colleagues.

Chairman Estes asked if there was any discussion regarding this update. Dave Bone observed that at the last Board meeting he thought we clarified not just the requirement to have the plan but the timetable for implementation of the plan as well, and he just wanted to ask staff if that is being stressed in the communications they are having with all the interested parties regarding this. Mr. Taylor assured him it was. Chairman Estes said he is concerned about the number of PSAPs which have not yet submitted anything, and acknowledging what Ms. Bone said earlier about email contact, asked her if he had understood that correctly. She replied he had, that she believes as many as half of the PSAPs in white on the map have communicated with her in that way, and that staff is making plans to physically visit each of those PSAPs very soon. She advised that she and David Dodd will be going to the very far western part of the state week after next. She added she does know that Haywood and Henderson Counties have something in the works, as do Mitchell County, Orange County, Brunswick County, Cumberland County, Fayetteville and Wayne, and Lumberton and Roberson County are trying to get something going as well.

Chairman Estes observed that he knows Mr. Taylor will be presenting the new website at the end of the meeting today, and asked if the map will be on the website. Mr. Taylor replied it absolutely will be. Chairman Estes then asked if there were any questions for Ms. Bone. Referring to the software cost she had reported to be going up considerably, Rob Smith asked if the PSAPs are buying that individually from vendors or does it fall within some type of a group purchase. Ms. Bone advised they are not allowed to purchase the software separately from the hardware; they must purchase both from the vendor. Mr. Smith then asked if there would be any benefit in grouping those together under some type of a combined contract for the PSAPs, and Ms. Bone replied she certainly wished they could if that would help drive the price down. Mr. Smith then asked if that is something we can do, and Mr. Taylor replied he thinks we can, but it would take time to accomplish that; time which is in short supply. He added that is something we will be looking at in the future as it pertains to the legislative directive to develop a cooperative purchasing

catalog for uniform procurement opportunities, but he doubts we could make that happen in time for the ongoing backup PSAP plan effort.

Buck Yarborough asked if you can buy a site license agreement or must you have the software installed for each unit. Ms. Bone replied the software is pre-installed on each unit. She added that CAD vendors are not charging to have their software loaded on a backup computer; it is the CPE equipment vendors who are levying the charge, and it is quite hefty. Chairman Estes asked if some of this will be addressed in the NextGen project, and Mr. Taylor speculated that when we go to NextGen a lot of these issues will simply go away, but one of the things we must resolve first is CAD interoperability. He asked Dave Corn if he could speak to this in light of the committee's work on hosted solutions. Mr. Corn asserted that hosted solutions are a major part of what NextGen will do for us once we get the ESINet in place. He added that the ability to interoperate with CAD, and to a certain extent radio, will allow PSAPs more flexibility in backing each other up rather than building and equipping separate, independent, stand-alone backup locations. He surmised that once NG goes in we will have many more options, while noting, however, that NG doesn't start going in until 2018.

Vice-Chair Barbour reported to Chairman Estes that he didn't see any other Board members wishing to speak. Chairman Estes thanked him and thanked Ms. Bone for her report. He reminded everyone that we had agreed earlier in the meeting to move agenda item 9 before agenda item 8, and asked Vice-Chair Barbour to proceed with the 911 Funding Committee report

8. FCC Task Force on Optimal PSAP Architecture (TFOPA)

Postponed until after item 9

9. 911 Funding Committee Report

Vice-Chair Barbour reported that the committee met a couple of times this week to bring a couple of items before the Board: funding reconsideration requests and determination of the FY2017 911 fee. He observed that although only five reconsideration requests are being brought before the Board today, more than five have been received. These five are simply the only ones which are complete; the others are still being reviewed and worked on. He then asked Mr. Taylor to take the floor to present the funding reconsideration request synopses. Mr. Taylor took a moment to review and explain the funding reconsideration request process for new members of the Board, then presented the request from Newton PD, a secondary PSAP.

a) Funding reconsideration requests

i. Catawba County-Newton PD: Mr. Taylor explained that Newton PD was not actually requesting additional funds, but was instead asking to be allowed to carry forward more than the 20% of their fund balance permitted in the statute. Catawba County, the primary PSAP under which Newton PD operates, is making the request in City of Newton's behalf. He explained that Newton PD first began receiving its 911 fund distribution after the beginning of the fiscal year, and did not want to go back before the city council to request a budget amendment in order to use those funds, so they did not spend any, although they have definite plans for spending them: new telephone switch, new call taking furniture, and CAD maintenance among them. They are asking not to have their FY17 funding reduced, to be able to carry over the entire fund balance (rather than just 20%) until they are able to complete those purchases, for which they have provided quotes. Mr. Taylor said staff feels like it is a good request, the Funding Committee heard the request, and the Funding Committee's recommendation is to approve it. Some discussion followed regarding the amount in question, \$1,100.00, then Chairman Estes called for a vote, which passed with Rob Smith abstaining.

ii. CMPD-Charlotte Fire: Noting that Charlotte Fire is a secondary PSAP as well, Mr. Taylor pointed out that the request is coming from CMPD, the primary PSAP through which the secondary PSAP receives funding. He said their request is for an additional \$93K to replace Charlotte Fire's circa 2003 recorder, and the Funding Committee's recommendation is to approve the request. Slayton Stewart asked how that increase would work, and Mr. Taylor explained it would be a one-time increase only for FY17; in FY18 the funding would drop back. Greg Hauser added Charlotte Fire is planning a new joint communications

center with CMPD, and this equipment will be brought into that, saving that expense moving forward. Chairman Estes called the motion, which passed with Greg Hauser and Rob Smith abstaining.

iii. Davie County: Mr. Taylor explained Davie County has replaced its phone system, has seen an increase in monthly line charges, will be replacing its recorder, and is purchasing headsets, headset batteries, chairs, EMD flip cards, etc., for their backup center. He added they have also asked for an additional \$1,200.00 for training, and quotes for everything have been provided. The Funding Committee reviewed the request, and the committee recommendation is to increase Davie County's FY17 funding to \$401,676.31. Chairman Estes asked if that was the increase or the final amount. Mr. Taylor replied it was the final amount, and Chairman Estes asked what the increase was. Mr. Taylor said the proposed funding amount they were to receive was \$273,840.85, so the difference between the two amounts would be the increase, or \$127,835.46. Jeff Shipp asked if their recording equipment is past end-of-life, which Mr. Taylor confirmed. Chairman Estes called the motion, which passed with Laura Sykora abstaining.

iv. Rutherford County: Mr. Taylor advised Rutherford County has submitted a very detailed request with a very good timeline, and is asking for an additional \$131,475.00 for FY17. The Funding Committee recommendation is to approve the request, moving the county's funding total for the upcoming year to \$485,368.54. Chairman Estes opened the floor to discussion, and hearing none, called the motion, which passed with Laura Sykora and Rob Smith abstaining.

v. Vance County-Henderson: Mr. Taylor characterized this request as a little bit quirky, saying he would step through it slowly to be sure everyone understands it. He relayed that Vance-Henderson did submit a reconsideration request and the PSAP director Brian Short did provide some good information, but there were a couple of components of it that Mr. Taylor discovered only upon review after the Funding Committee had recommended approval which caused him concern. He brought those concerns back before the committee, but it stood by its original recommendation. He said the upshot of this is that the request has been approved, but he also received an email yesterday from Mr. Short asking that he remove the request from consideration.

Mr. Taylor explained Vance-Henderson received a reconsideration request from the Board last year of about \$190K, but of that they have thus far only spent about \$90K, and many items on the list of what they were going to purchase last year were not purchased. He said he phoned Mr. Short to try to understand the situation, and it turned out that because of financial pressures at the PSAP the money from last year was diverted; Mr. Short speculated that had it been received in a lump sum, they would have purchased all those items, but since it was evenly divided into their monthly payments, it was used for other expenses. Mr. Short told Mr. Taylor he was confident they will be purchasing all of the items listed in his funding reconsideration from last year before July 1 of this year, and Mr. Taylor told him he just did not feel comfortable coming before the Board asking for another funding reconsideration before the last one is completed.

Mr. Taylor reiterated the committee did recommend approval for this, but he did receive the email from Brian Short yesterday asking that the request be withdrawn. Mr. Taylor added he did suggest to Mr. Short that he could approach the Board after July 1, if all the prior reconsideration request funds were indeed expended, and move forward from there, and he thinks that is what Mr. Short would like to do.

Vice-Chair Barbour reported to Chairman Estes that he has spoken with Mr. Bradford about this, and Mr. Bradford's opinion is that since staff has received this email the recommendation does not require a vote. Chairman Estes thanked him, and said he would follow counsel's advice and move forward that way.

b) 911 Fee for 2017

Vice-Chair Barbour noted for new Board members that the Board has a statutory requirement to review the 911 fee every year, with the option to either leave it alone or increase or decrease it. He reported that the Funding Committee debated this issue at great length during its meeting this week which resulted in a tie vote for the first time since the committee has been in existence, therefore the committee did not arrive at a recommendation to bring before the full Board today. He then asked Mr. Taylor to go into further detail.

Mr. Taylor explained the statute requires the Board to review the financial situation each year to determine whether to leave the fee at its current rate or increase or decrease it. Should the Board determine the fee needs to be increased in excess of 70¢, approval must be secured from the General Assembly, but otherwise no limits are imposed. Mr. Taylor noted the determination must be made before April 1 because providers must be allowed 90 days to make adjustments to their billing if a change is made.

Mr. Taylor reiterated what Vice-Chair Barbour had said regarding this being the first time the committee has become stuck on a tie vote, adding that it voted two or three times in trying to break the tie. He observed that while the committee was unable to voice a recommendation, technically the tie vote represents a recommendation that the fee be left as is.

He then displayed a spread sheet of financial projections onscreen which illustrated the financial impact associated with leaving the fee at 60¢, increasing it to 65¢, or increasing it to 70¢ calculated using revenue data from FY14-FY16. He noted that while pre-paid revenue has finally begun to level off, the creation of the NG911 10% fund will obviously reduce the amount of funding available for all other uses. Mr. Taylor explained the methodology used to arrive at the projections in the spread sheet, and observed that right now we are looking at a potential fund balance at the end of this year that could go into the grant fund of about \$14M. Dave Bone asked if it *could* go into the grant fund or would it *have to* go into the grant fund. Mr. Taylor explained money remaining in the PSAP fund at the end of a fiscal year must either be transferred into the grant fund or be distributed on a per capita basis to the PSAPs, and although money remaining in the CMRS fund at the end of a fiscal year *may* be transferred to the grant fund, that is discretionary rather than required.

Slayton Stewart observed that ~\$14M is the projected amount available at the end of FY16, and asked if we have projections for FY17 at the same fee rate. Returning to the spread sheet, Mr. Taylor showed that yes, there are projections for all three scenarios: leave the fee at 60¢, raise it to 65¢, or raise it to 70¢. He also stressed these projections are only for forecasting purposes because the Board has not yet approved a budget for FY17. He noted that when he presents the budget for approval, he will be asking for an increase in the Administrative Fund from the current 1% to 1.5% to cover increased costs of operating the Board and additional staff members which he hopes to be bringing onboard very soon.

Mr. Taylor once again went through the mechanics of the forecasting, demonstrating that if the fee is left at 60¢, funds available to be transferred to the Grant Fund will drop dramatically to only ~\$3.9M. Chairman Estes asked if the money from the NG911 fund isn't being counted twice, and Mr. Taylor replied it only appears that way because the NG911 fund will not be sufficient to pay for all of the expenses associated with the NG911 project; it will only pay for part of it, with the remainder coming from the general fund. Marsha Tapler asked if the question was about the \$1.5M entries in the Statewide Project row near the bottom of the spread sheet, and when Mr. Taylor told her yes, that was what was being referred to, she explained that value is *not* NextGen. It is, instead, a projection for both ECaTS and the upcoming language translation services statewide projects.

Buck Yarborough observed the amount appears to be tripling in one year, from \$550K to \$1.5M, and asked why that is. Mr. Taylor replied it is because of a completely new project coming on line. Laura Sykora observed that when the Funding Committee discussed this, the \$550K was for ECaTS, and the remainder for the statewide language translation service initiative.

Chairman Estes then asked for clarification of what recommendation was coming from the Funding Committee. Vice-Chair Barbour said the motions made in committee were to increase the fee, but all the voting ended in tie votes, so the inference is that the rate should remain as is. Chairman Estes asked specifically if the funding committee has made that recommendation, and Slayton Stewart clarified the committee did *not* make that recommendation; it simply couldn't move past the tie votes, so the default position is to leave the rate where it is.

Ms. Sykora offered that she is the one who made the recommendation in committee to raise the fee to 70¢ which resulted in a tie vote, then she made the motion to raise it to 65¢, with the same result. She pointed out that providers typically don't want to make any charges appearing on their bills to go up, but as a member of the Funding Committee she leaves CenturyLink at the door when she comes into a meeting. She observed that when she looks at the funding reconsideration requests coming in, such as

those voted on this morning and those still in waiting; when she looks at backup plans that still need equipment purchased, which in itself is likely to generate even more reconsideration requests; when she looks at the Board's perspective that consolidations in the *long run* are going to help us save money, she's very uncomfortable with only having a projected \$4M to handle all that. She said she doesn't know if 65¢ or 70¢ is the right number, but she's very uncomfortable leaving the fee at 60¢ for this Board to do the work that is in front of it.

Noting this is only his second meeting, Mr. Yarborough apologized if he is asking elementary questions, but as he reads and understands this just over \$14M is available for transfer to the grant fund at the current rate, and if the rate stays the same, just under \$4M will be available for transfer next year, for a total of just over \$18M. He asked if we expect to spend all of the \$14M and have nothing to carry over into the following year. Ms. Sykora interjected she wanted to clarify that the \$4M, if we have no reconsideration requests, could go into the grant fund, but if we have reconsideration requests that are in excess of \$4M, we won't have enough money to meet our obligations. Mr. Yarborough said he understood that, but he was trying to understand if they are mutually exclusive: if you don't spend the \$14M, that could carry over and be added to the \$4M. Mr. Taylor then explained to him the statutory obligation to empty the PSAP fund, which is where the bulk of that would come from. It cannot be carried over. Mr. Yarborough then surmised if it is not all used for grants, it must be distributed to the PSAPs on a per capita basis so that you start the next year at zero, and Mr. Taylor confirmed that was correct.

Chairman Estes asked for clarification from counsel, asking if we are looking at a motion that came out of the committee because they said to do nothing, and is that the same as a motion that doesn't need a second. Mr. Bradford replied there is not really a motion from the committee, so there is no committee recommendation. He said that if the fee is to change it would require a motion and a second from the Board today. Chairman Estes surmised that if the fee stays the same, no action is required, and Mr. Bradford affirmed that no action means it stays as is.

Mr. Taylor said he would like to respond to Ms. Sykora's comments, acknowledging he certainly appreciates everything she said, but he does have a couple of fundamental things he would like to say, and the Board can take them for what they're worth. He observed the Board does not have to grant every funding reconsideration request, and he thinks also that PSAPs need to do a better job of budgeting. He said that when staff sees what PSAPs are spending on things like the backup laptops mentioned earlier, or telecommunicator chairs, or any other eligible expenditures, it does not appear that they are actually shopping for a best price; they are just going out and buying the first thing that appeals to them because the general feeling is, and he has been told this by others so it's not just his opinion, that they don't need to worry about cost because the 911 Board is going to pay for it. He said if that lack of concern for what things cost continues, the Board will never have enough money to pay for everything, adding he does not want to increase the fee unless it's absolutely necessary. He acknowledged that as we move toward NextGen we will have to cross that bridge in the future, but he does not think that time is now, rather he thinks it is time for PSAPs to learn "This is your budget, and this is what you need to live within," not just to be spending money because you can.

Dinah Jeffries said she hears what Mr. Taylor is saying, but she kind of thinks we contradict ourselves because, as happened several meetings back, we are consistently fussing because PSAPs *aren't* spending their money on upgrading. She said she doesn't think it's fair to blame it on PSAPs and say it's because they think they can go out and spend money because the Board's going to pay for it. She added we consistently hear from PSAPs that they can't get some things approved and then we also hear from Mr. Taylor about how we can't get PSAPs to upgrade. Mr. Taylor replied she is exactly right, they're not upgrading, and that is a problem, but they're out buying other stuff instead of upgrading, and that is where he thinks the problem lies: the priorities are not there. He observed there is a difference between just spending money and investing in what you're working with; you've got to keep your basic pieces upgraded, you've got to keep them up to date. He said those are the items *not* being replaced and then we turn around and get a reconsideration request where they're having to do a complete forklift overhaul—that's what concerns him.

Dave Bone responded he was somewhat offended by the over-generalization of wasteful spending, observing there are a lot of good PSAPs that are doing very good work, and reiterated he thought that was an over-generalization. He stated that under the current funding model we have a process for funding reconsiderations, and while we don't have an obligation to fund every reconsideration, we have

precedents establishing that if the requests are for allowable expenses then we do fund them. He observed we've been sending that message all along, and although we have been working on spending caps and those sorts of limits, we don't have all that in place yet, so until we do, it's unfair to change midstream and back this away. Ms. Sykora interjected that is exactly her thinking as well: until we have a new funding model and/or we have the cooperative purchasing agreements catalog and we have spending limits, we cannot just say "We're just not going to give you enough money to fund what we've been funding in the past." She added she doesn't think that is the right fiduciary thing for this Board to do.

Chairman Estes responded there are still some missing data points, contending that much of the FY2017 forecast is, while maybe directionally correct, not based on a lot of known facts. He speculated it could be \$4M, but it also could be \$10M because we may not spend all the NextGen money right away. He pointed out we haven't completed the RFP process, we haven't determined what the vendors' prices will be for NextGen—they could be much more aggressive than what we're anticipating through the competitive process—so again, these are just forecasts.

Mr. Bone said he would like to emphasize what Ms. Sykora stated previously, that we know, it's a known factor, that all of these PSAPs are working on their backup plans; we know that there are going to be needs which will need to be funded; we've heard what the cost may be for a single laptop. He surmised all this is going to cost something and we know it's going to be coming in reconsideration requests next year. He pointed out we don't know what those totals are going to be, but we know they're going to be substantial. He said he agrees with Ms. Sykora in that he is just not confident that we have the funding that will be required to meet those needs.

Chairman Estes thanked Mr. Bone for his comments, and asked if there were further comments or discussions. Mr. Bone spoke up again, saying he would like to share with the Board some of the discussion that took place in the Funding Committee meeting, relating they debated long on whether it was better to increase only 5¢ or go to 10¢, with several folks advocating going to 10¢.

Chairman Estes again asked for comments or discussion, and Slayton Stewart asked when the fee was last changed. Mr. Taylor replied probably 2010 or 2011, just off the top of his head. Vice-Chair Barbour confirmed it was 2010, recalling that Dave Corn, then a Board member, spearheaded a move from 70¢ down to 60¢. Mr. Stewart observed then we've been at 60¢ for six years. He next asked if funds for the NextGen project, approximately \$4M in the FY16 projection on the spread sheet, once earmarked, cannot be used for other expenditures. Mr. Taylor said he would defer to Mr. Bradford for a definitive answer, but once they're encumbered they certainly cannot be used for anything else. Mr. Bradford replied the money in the NG911 fund (10% fund) cannot be used for anything other than NG911. He further pointed out those funds are not encumbered, technically, from an accounting standpoint, however, they are budgeted based on the statute, and they cannot be expended for anything other than what they were set aside for by the General Assembly, i.e. NG911.

Mr. Bone spoke up next, making a motion to increase the fee to 70¢, and Laura Sykora seconded the motion. Chairman Estes said he found it hard to have Board members make a recommendation that couldn't be agreed upon in committee, but if the Board wanted to move forward with that, he would move on with discussion. He added it seems to him this should be a committee project. Ms. Sykora relayed to Chairman Estes that in the committee, since they did have the split votes, they discussed leaving the decision to the full Board to make. Mr. Bone added he wanted to make Chairman Estes aware that the entire committee was not present at the meeting, that in fact there were two members of the committee absent. Chairman Estes observed he saw that as more reason to send it back to the committee. Rick Edwards interjected he doesn't feel comfortable voting on this if we don't get some sort of good, solid decision from the committee itself. Ms. Sykora replied she's afraid we're out of time because we have to notify the carriers by April 1st and this is the last Board meeting before that date.

Mr. Taylor speculated we could send it back to committee and the committee could meet between now and April 1st so it could come up with a recommendation and the Board could vote on it in a special called teleconference. Chairman Estes replied that's within the realm of possibility, and asked Vice-Chair Barbour, as Funding Committee chair, to continue. Vice-Chair Barbour noted there was a motion and a second on the floor and asked for further discussion or other procedural offers. Chairman Estes then asked Mr. Bradford if we need to vote on that motion or send it back to committee as required by Roberts Rules of Order. Mr. Bradford replied there are alternatives permitted by Roberts Rules; one of them is an

amendment to the motion which could take the form of what people usually refer to as tabling that would defer the motion to a time certain, in which case it would come up again for consideration and a vote. He observed another option is the motion could be amended by the maker of the motion or by some other Board member receiving permission from the maker of the motion. Lastly, he said the motion could be voted on and either approved or rejected: those are the three options.

Repeating those are the three options available to the Board, Chairman Estes asked if there was further discussion. Vice-Chair Barbour said he thought only one member of the funding committee was absent from the meeting, asking Mr. Taylor if he was remembering correctly. Vice-Chair Barbour said that was Sheriff Hagaman, who was at an FBI meeting. Mr. Taylor recalled Andrew Grant was also not in attendance, and Vice-Chair Barbour concurred, saying "So we had two members missing." Chairman Estes asked if those two members had been present, would that have changed the outcome of the meeting, and Vice-Chair Barbour said he did not know. Mr. Yarborough added there is a vacancy on that committee as well, with which Vice-Chair Barbour agreed, so Mr. Yarborough surmised the committee was down three members rather than two, and Vice-Chair Barbour concurred. Mr. Yarborough then asked if Ms. Sykora would entertain an amendment to her motion, and she reminded him it was Mr. Bone's motion, which she had seconded. Mr. Yarborough then directed his question to Mr. Bone, and Mr. Bone asked what amendment he was proposing. Mr. Yarborough said to follow Mr. Taylor's advice and see if we couldn't get a larger turnout at another committee meeting and for the committee to come back with a recommendation to the Board timed in such a way that there is sufficient time to complete the process with a teleconference vote from the full Board before April 1. Mr. Bone responded he understood Mr. Bradford to say it would have to be a time certain, and Mr. Bradford explained that completing all of that before the April 1st deadline is sufficient as a time certain; the dates would have to be scheduled, but the end dates are certain.

Vice-Chair Barbour said that he didn't know that sending it back to the Funding Committee would change anything unless staff could present more documentation than they had this week. Chairman Estes said that might be part of the process, as he thinks there are still some unknown expenditures in the out years that could be researched a little, for example Mr. Taylor's indication that he is going to seek an increase in his budget that has not yet been approved by the Board. He said there are things like that which he thinks need to be reconsidered by the committee to make sure they are accurate. He then asked if Mr. Bone wished to accept the friendly amendment to his motion. Mr. Bone repeated what he understood the amendment to be, asking Mr. Taylor if he thought the parameters laid out by Mr. Yarborough could be met. Mr. Taylor replied that would depend upon what additional, more detailed information staff was expected to gather and present.

Chairman Estes said he thought there were two pieces: to get more financial information from Marsha Tapler and to get more members into the committee structure, e.g. three additional Board members based upon the earlier discussion: two who were not able to attend and one open position that potentially could be filled. Mr. Taylor advised the open position is not a Board member position, it is a non-Board member position, but there were two Board members who are on the committee that were unable to make the second call. Ms. Sykora observed there are five Funding Committee members here today and Mr. Grant is on the phone, if there might be some way we could pause the Board meeting and hold a Funding Committee conversation and see if we could resolve it all today. Chairman Estes interjected that before we could do that we have to complete the consideration of the friendly amendment. Vice-Chair Barbour saw Mr. Bone shaking his head "No", and asked him if he was saying he would not accept the amendment. Mr. Bone confirmed that was the case. Chairman Estes accepted that and returned the floor to Ms. Sykora, but she indicated what she had suggested was intended to facilitate acceptance of the friendly amendment, so it was no longer relevant. Mr. Bone interjected there was too much variation there in terms of the timing or he would be more willing to accept the amendment. Vice-Chair Barbour then offered there is no better time than right now for us to talk about it while we're all here, because it's going to be hard to pull all of the Board back together where we can see and hear each other. He then said he was inclined to vote.

Jeff Shipp said he wanted to offer a comment, and that it was strictly a comment: that as chairman of the NG911 Committee, he understands the seriousness of this, however he does not think this is the appropriate time. He said he does challenge staff and the Board to continue to look for efficiencies within the Board and within the budget and continue to look at state purchasing agreements, reiterating we have got to show efficiencies within the Board first before we address a funding increase.

Chairman Estes said he was trying to keep up, but he thought Ms. Sykora had made a suggestion to have the members of the committee meet at some point in the near future today to bring a recommendation to the Board which may be later today or at a special session of the Board within two or three days from now, or early next week, via teleconference. Ms. Sykora interjected her thought was there are five committee members in the room and Mr. Grant on the phone, making six. She admitted she didn't know how to facilitate this, but she was proposing to pause the Board meeting for a break, let the committee get together, and then it can come back. Vice-Chair Barbour observed she wants to resolve it before we leave today. Chairman Estes said he understood, but that would be something that would have to be agreeable to the maker of the motion on the floor. Mr. Bone replied he would be agreeable to that, as did Ms. Sykora as the second.

Andrew Grant advised that unfortunately he was going to have to drop from the remote connection in about five minutes, adding he is of the same mind as Vice-Chair Barbour as to being ready to vote on the motion. He added that although he understands and acknowledges Mr. Bone's and Ms. Sykora's concerns about funding, he was not prepared to vote on an increase until we have a healthy discussion about our funding model. He admitted we've started it, but maintained we have a long way to go. He added he also has concern about some of the staffing increases and the departmental operational budget increases, saying a lot of those funds could go toward grants. He reiterated he's just not comfortable making a recommendation at this time for an increase. Vice-Chair Barbour asked Mr. Grant how long he could stay in the meeting. Mr. Grant replied "Literally about ten minutes." Vice-Chair Barbour then addressed Chairman Estes advising we may be losing a Board member if we don't vote within the next ten minutes. Chairman Estes then asked what other discussions would Board members like to have on this topic if we move it to a vote today.

Mr. Bone observed that as a manager he is concerned about unfunded mandates, and he feels the backup requirement is in place, the reconsideration process is in place to help fund that, and he's very concerned that without an increase we're basically going to have an unfunded mandate and that he doesn't know what the local governments, particularly the small rural governments, are going to do; how are they are going to do this, particularly with the implementation of these backup plans, if we start turning them down for reconsideration requests. Mr. Taylor replied he disagrees: it's not unfunded—we are funding them. He observed Mr. Bone is generalizing now by saying we don't have enough money to take care of them. He noted we don't have enough money for them to build buildings and remain independent of the PSAPs around them, but if they would cooperatively work with other PSAPs costs could be kept down. He reiterated, it's not unfunded; we have the funding to take care of them, but we don't have funding to pay for 119 individual backup PSAPs. He added he doesn't think even a 10¢ increase would be enough to pay for that.

Chairman Estes asked if there was any further discussion, and hearing none, said that he was going to move to take a vote on the motion. He asked if the motion needed to be read again, and several Board members replied yes. Vice-Chair Barbour added he would recommend a roll-call vote as well. Mr. Bone stated the motion was to increase the 911 fee to 70¢. Rick Edwards asked about the amendment, and Ms. Sykora replied there was conversation about it. Mr. Bradford advised the main motion was amended, because the maker of the main motion accepted it, therefore the Board needs to vote on the amendment, which was essentially to pause this meeting, allow the committee to meet, and the committee to come back with a recommendation for resolution, so that needs to be voted on first. If that is successful, then there would be no need to vote on the main motion.

Chairman Estes thanked Mr. Bradford for the clarification, and said he'd move to a vote on the amendment. Slayton Stewart asked for a clarification, asking if we vote in favor of the amendment, will the committee have sufficient time to come to a conclusion and make a recommendation to the full Board. Chairman Estes said that as he understood it the amendment that has been approved by the maker of the motion is for the committee to break out at the end of this Board meeting, have a discussion, and then the Board reconvene later today to vote on the committee's recommendation. He then asked if he was understanding that correctly.

Vice-Chair Barbour mentioned he thought Mr. Stewart's question was what information would the committee have at its disposal now that it didn't have at this week's earlier meeting, and Mr. Stewart concurred. Mr. Bone asked Mr. Bradford if the amendment could be retracted and go back to the original

motion. Mr. Bradford replied yes, that could be done, if Ms. Sykora would request that Mr. Bone rescind his approval of her amendment, and then we could go back to the main motion. Ms. Sykora asked Mr. Bone to do so, and he agreed. Vice-Chair Barbour advised Chairman Estes that now the original motion was on the floor.

Once again, Chairman Estes solicited any further discussion on the original motion. Hearing none, he did say that he wanted to add a comment, which he normally doesn't do, but he thinks we should be aware that if we haven't drawn out all the efficiencies of the Board, there is a short session where they might choose to draw those efficiencies out for us if we make an increase in the rate. With no other discussion evident, the roll-call vote was called:

YES	NO
Dave Bone	Jason Barbour
Sheriff Hagaman	Darryl Bottoms
Greg Hauser	Eric Cramer
Jimmy Stewart	Rick Edwards
Slayton Stewart	Andrew Grant
Laura Sykora	Dinah Jeffries
	Jeff Shipp
	Rob Smith
	Buck Yarborough

When Darryl Bottoms name was called, Mr. Taylor reported he had received an email from him stating, "My vote 'No' to increase." Rick Isherwood was absent. When the tally was complete, Mr. Taylor announced the motion did not carry.

Chairman Estes thanked everyone for voting, which means no change will be made to the fee for FY17 unless there is any other motion a Board member wishes to bring forward. Hearing none, he asked Vice-Chair Barbour is there was any more information coming from his committee report. Vice-Chair Barbour's reply was, "That's enough," saying now people could see why he wanted to address this before agenda item 8. Mr. Taylor replied we will not do item 8 today. Chairman Estes asked if item 8 was time sensitive, and when Mr. Taylor said it was not, asked to postpone it to another meeting. Mr. Taylor readily agreed to do that. Chairman Estes then asked Mr. Taylor to cover item 10 quickly, as it is a good news story.

10. New Board Website

Mr. Taylor displayed the landing page of the new website onscreen, reminding everyone that, as he has relayed to them over the past couple of months, we have had problems with the current website, his understanding being that the server had been hacked and they had to move to a new server and it has really caused a lot of problems with trying to get updates done and everything. He added, however, that at the same time the state has been moving everyone to a new format in websites with new programming and all, and the web folks have been working with us over the last couple of months trying to get our page established.

Returning to the landing page, Mr. Taylor said they've cleaned up a lot of things, which will make the web page more friendly to use. He ticked off several of the changes as he maneuvered through the page, noting older agenda books and minutes will be archived. He relayed staff is excited about this, which is all a part of this new vision for getting all the state websites to look alike and work together, and is scheduled to be turned on next Monday. He said he is impressed with the fact that we will now have access to analytics so we can monitor where people are going on the website to identify interests so we can improve on those areas. He added this is one of the projects Chairman Estes worked on when he was the State CIO. He also noted Tina Bone will be receiving training in Drupal, the content management software for the new website, and she noted that training is *next* week, adding she wants to make everybody aware there is already some information on the site that is incorrect and as soon as she and Mr. Taylor have received their training she will go back and get that information updated.

Mr. Taylor thanked Chairman Estes for this project that he started as State CIO, and Chairman Estes said he would actually have to give Governor McCrory credit because he's the one who wanted to make doing business with state government as easy as checking scores on a smartphone, adding these sites are responsive, meaning you can use them on a smartphone. He pointed out if you look at the current website on a smartphone, it's not smartphone enabled so it's very difficult to navigate; the new site will scale automatically to fit any device anytime anywhere. He wished Mr. Taylor good luck with the roll-out, saying he looked forward to using the new site quickly.

Other Items

Chairman Estes asked if there were any other items to come before the Board today. Hearing none, and Vice-Chair Barbour reporting he saw none, Chairman Estes said he just wanted to remind everyone that we do have the committee structure, and it is a good way to make sure that everyone's voice is heard, that the committees are much more focused and detail oriented, and that he encouraged anyone, guests included, to participate in those committee meetings.

Adjourn

Chairman Estes adjourned the meeting at 12:20 PM.

DRAFT

PSAP Liaison Report-April 2016

(3/12/2016 to 4/15/2016)

Activity Summary for April 2016

3/15/2016: I participated remotely in a Funding Committee Meeting at the 911 Board office in Raleigh. The purpose of the meeting was to review, discuss, and make recommendations on several funding reconsiderations to take before the 911 Board.

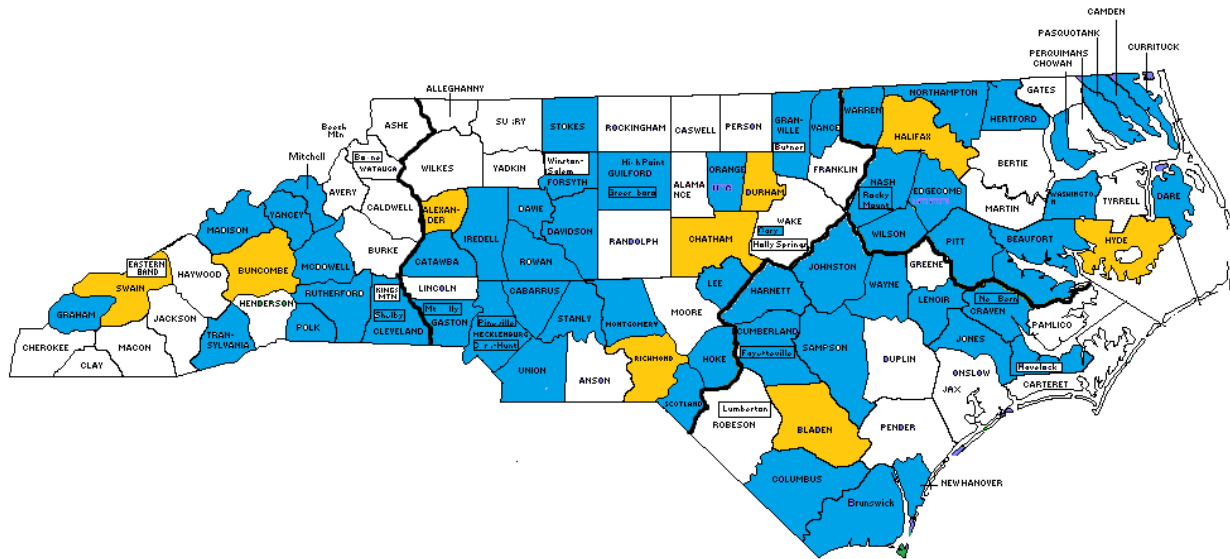
3/15/2016: I participated in a Funding Sub-Committee conference call. The purpose of the call was to continue to explore options on creating a new and sustainable PSAP funding model.

3/16/2016: I made a PSAP visit to the Davidson County 911 Center in Lexington, NC. I met with Communications Director Terry Bailey. The two main topics of conversation were Text to 911 and backup PSAP Plans. Terry indicated they were operational with Text to 911 with 3 of the 4 big carriers. (Update- received an email from Terry on 3/24/2016 stating they are now active with Verizon.)

Terry also stated he had talked with High Point 911 about being the Davidson County backup site. While they share the same telephone and CAD vendors, he is a bit concerned about them answering his calls while they are transitioning to High Point, because High Point does not provide the EMD level of care. Terry also spoke with Guilford Metro, but has a little concern about if their space would be available, since they already have agreements in place with other PSAPs. Terry stated he already had some older equipment on hand he could repurpose to the backup center, including a CAD server and some radio consoles. He is thinking about a location near the current Sheriff's Department where there is ample network availability in place. I reminded Terry he has to have a plan and a timeline for implementation submitted prior to July 1, 2016, or his funding could be negatively impacted.

3/17/2016: I participated in the Southeast Region PSAP Managers meeting in Kinston, NC. The Southeast meeting concluded the regional managers meetings for March. The next round of regional meetings will be held in July. Below is a map illustrating participation for the March meetings. Areas shaded in blue indicate attendance at a meeting. The areas shaded in gold, indicated they would attend a

meeting, but were unable to for a variety of reasons. The areas in white chose not to respond or attend a meeting.



The attendance summary shows there were a total of 91 PSAP Managers and Assistant Managers, representing 65 PSAPs at all four meetings.

- 3/22/2106: I participated in a 911 Board Staff meeting in Raleigh, NC.
- 3/23/2016: I participated in a Standards Committee Meeting in Raleigh, NC
- 3/23/2016: Tina Bone and I met with Vic Williams from Brunswick County after the Standards Committee meeting, to review and discuss his backup PSAP plan. Vic is a reasonably new PSAP manager, and wanted to clarify some points, and discuss what he wants to do, prior to starting the plan. Vic was extremely well prepared for the meeting, and seems to have a really good plan in mind. We reminded him of the time crunch, and that putting his thoughts on paper was essential.
- 3/24/2016: Richard Taylor, Education Committee Chair Jimmy Stewart, and I met with legal counsel Richard Bradford, asking him to give us a better understanding of the wording in General Statute 143-B as it refers to training. The discussion focused

around what training was eligible, and how the Board could develop policies regarding training.

- 4/4/2016: I spoke with Russell Greene, Emergency Services Director from Alexander County, and answered more questions he had regarding their backup plan. This was a follow up conversation from a face to face meeting with Russel and others on 2/10/2016.
- 4/6/2016: I participated in a Funding Committee meeting at the 911 Board office in Raleigh.
- 4/7/2016: I helped facilitate an Education Committee meeting at the 911 Board office in Raleigh.
- 4/11/2016: I gave (2) 1 hour presentations on “Climbing the Career Ladder in 911” at the NC APCO Training Symposium at the Double Tree Hotel in Greensboro. There were approximately 20 attendees at each session.
- 4/13/2016: I participated in a Standards Committee meeting at the 911 Board office in Raleigh.
- 4/14/2016: I participated in a Next Generation 911 Committee meeting at the 911 Board office in Raleigh.
- 4/15/2016: I met with Rowan and Cabarrus Counties in Salisbury in regards to Rowan’s backup plan. Rowan is entering into an agreement with Cabarrus to use their existing backup facility at the Cabarrus County DSS building in Kannapolis. Their plan is to expand the number of seats already in place to accommodate Rowan County, as well as providing space for Concord and Kannapolis PDs, who are working on the procedures to be recognized as secondary PSAPs by the 911 Board. We talked about the number of seats that would be needed, and the size network connection Rowan would need for telephone and CAD connectivity.

911 Network Specialist Report

April 2016

Summary:

- March 15th, Funding Committee Meeting
- March 16th, Washington County
- March 17th, Southeast Regional PSAP Managers Meeting
- March 22nd, Staff Meeting
- March 23rd, Standards Committee Meeting
- March 23rd, Drupal Training
- March 30th, Cherokee County
- March 30th, Clay County
- March 31st, Graham County
- April 6th, Funding Committee Meeting
- April 7th, Education Committee Meeting
- April 8th, Halifax County
- April 8th, North Hampton County
- April 13th, Standards Committee Meeting
- April 14th, Next Generation 911 Committee Meeting

My meetings with the PSAPs were to discuss backup plans and why they haven't requested text to 911. Cherokee, Clay, and Graham counties have now submitted backup plans and we are reviewing them. Forsyth County's backup plan has been approved. There are 39 approved backup plans, 43 have been submitted and are in some type of process (being reviewed, sent back with questions, financial review, etc.).

The new website is live and I'm continuing to update the information.



Rockingham County 911 Consolidation Project Monthly Progress Report

March 2016

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">Completed Procurement Documents for Paging SystemConducted on-site survey of potential paging tower sites	<ul style="list-style-type: none">Evaluate Paging System DocumentsVendor Selection for Paging System
2. Permits	<ul style="list-style-type: none">No Activity this reporting period	<ul style="list-style-type: none">No activity anticipated on permitting for next reporting period
3. Construction	<ul style="list-style-type: none">No Activity this reporting period	<ul style="list-style-type: none">No activity anticipated on construction for next reporting period
4. Communications Systems	<ul style="list-style-type: none">No Activity this reporting period	<ul style="list-style-type: none">No activity anticipated on communications systems for next reporting period
5. Other Activity	<ul style="list-style-type: none">Hired Rodney Cates as Rockingham County PSAP ManagerMCP Staff attended Rockingham County Consolidated Dispatch Advisory Committee Meeting for feedback on paging and staff supportContinued staff support for Rockingham CountyMet with Guilford – Metro to discuss details of backup planDeveloped Draft backup planBegan formalization of backup documents	<ul style="list-style-type: none">MCP to continue staff supportContinue regular communications with Rockingham County staff



HERTFORD COUNTY E911 COMMUNICATIONS DEPARTMENT
P.O. BOX 116 WINTON NC 27986
252.358.7861
DAVID BROWN, DIRECTOR

Monthly Report to NC 911 Board
For March 17, 2016

HERTFORD COUNTY 911 PSAP CONSOLIDATION GRANT

The Hertford County 911 Governance Board continues to meet monthly on the 1st Wednesday. Grant was accepted 7-15-13. Consultants and Engineers were accepted 10-7-13. Construction bid was accepted and awarded to Cadet Construction for \$2,636,300 on 1-20-2015.

Ongoing Business:

Construction continues on our center. Mostly interior work being done now. Generator has been installed and landscaping still in progress. Interior has 1st coat of paint, cabling and wiring in full speed. Cable trays and conduit is almost all in place. Frames for windows and doors installed. Lighting and electrical all being worked on.

Building completion date extension has been requested of 28 days. If approved that would push substantial completion date out to late April.

We have our site meetings on the 2nd Tuesday of each month from 11-12.

We have signed contracts with console furniture provider, EMD provider, radio provider, logging recorder provider, CAD provider, 911 system provider, cabling and A.V., office furniture, IT and security system and 24/7 chairs.

We received confirmation of consolidation staff moving to the new center in December.

New Business:

We are coordinating vendor installation schedules and awaiting final completion date to coordinate training.

Cabling and AV have initiated their projects as well as radio.

We have completed some CAD training.

Upcoming Business:

Continue to plan for training, staffing and coordinating installation of equipment.

Contracts and Purchase orders: The construction contract was approved by the Hertford County Commissioners for Cadet Construction in the amount of \$2,636,300.

The monthly expense report is attached.

Our next meeting is 4-6-16 at 10:00 a.m.

Respectfully Submitted,

David Brown

David Brown

Hertford County E911 Communications Director

Caldwell County 911 Grant Report

April 2016

Updated Project Timeline

- a. Replace the current Plant/CML ECS 1000, which serves both PSAPs, ~~and upgrade the telephone network to an IP based network provided by Intrado by October 31, 2014 by June 3, 2015.~~ – finished.
- b. Replace the current Motorola, Gold Elite radio consoles and associated equipment at the primary PSAP and the Zetron radio consoles, and associated equipment, at the secondary (back up) PSAP - ~~by January 31, 2016~~ by May 31, 2016
- c. Replace the current recorder with an IP based recording system that is capable of record and playback features for both PSAPs— ~~by July 31, 2015~~ by May 31, 2016
- d. Replace current CAD computer workstations at both PSAPs, which are already "end of life", with new CAD computer workstations capable of running the latest CAD software; Virtual server software can be located off site of both PSAPs to ensure the software will continue to run if access is lost at either PSAP, for additional back up – ~~by September 30, 2015~~ - by April 30, 2016.
- e. Upgrade the telephone network to an IP based network provided by Intrado – by July 31, 2016
- f. The furniture, flooring and chairs will need to be replaced in both PSAPs – ~~by November 30, 2015~~ – finished except for chairs.

We are still working on getting the VIPER network connections setup for the radio system. It appears as though we will be going with Charter Communications for the connections. They are estimating 60 days build time for the connections so we will be pushed back for the radio install until the connections are in place.

We are still testing the new CAD console machines and hope to have them in place in the next few weeks. EMD issues have been worked out. We are now being told by Sungard that we need to upgrade our CAD before we can place our new machines. That should be done in the next couple of weeks. Hopefully, we can get these machines in place this month.



**Dare –Tyrrell and Hyde Counties
Regional Emergency Communications Center (RECC)
Monthly Progress Report**

March, 2016

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">• VE and GMP documents and drawings have been completed• Design process completed	<ul style="list-style-type: none">• Design modifications if needed during construction
2. Permits	<ul style="list-style-type: none">• All Building permits approved• No further action required	<ul style="list-style-type: none">• No additional action planned
3. Construction	<ul style="list-style-type: none">• Construction continued during March• Site Preparation continues in association with construction process• Bi-weekly construction calls conducted between design team and Whiting-Turner	<ul style="list-style-type: none">• Construction to proceed during this period with site preparation and foundation preparation
4. Communications Systems	<ul style="list-style-type: none">• 70' Tower specifications completed• Communications shelter specifications completed• County will bid the tower, base and communications shelter during Q-2• Cost proposal from CenturyLink for redundant fiber link between current and new PSAP has been completed• County discussed transitioning from CenturyLink/Intrado to Emergency Call Works, decision pending	<ul style="list-style-type: none">• MCP in conjunction with Dare County will issue RFP for tower and shelter• Coordination with Whiting/Turner to schedule microwave tower delivery and installation• NG-911 CPE Solution will be selected between Intrado and Emergency Call Works• RFP will be developed for CPE if County transitions from a CenturyLink solution to Emergency Call Works
5. Other Activity	<ul style="list-style-type: none">• MCP conducted bi-weekly project status conference calls with the client• MCP and County completed vendor negotiations and finalized capital items budget• MCP developed an operational budget for recurring costs	<ul style="list-style-type: none">• MCP will continue bi-weekly conference calls with the Clients• MCP continues coordination of transition plan to include Tyrrell and Hyde Counties to Dare County• MCP will assist in coordinate transition planning for the new facility



Haywood County, North Carolina
PSAP Consolidation Renovation Project
Monthly Progress Report

March 2016 Report

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">• No change	<ul style="list-style-type: none">• On Going
2. Permits	<ul style="list-style-type: none">• None	<ul style="list-style-type: none">• None
3. Construction	<ul style="list-style-type: none">• Renovation and Construction continues in 911 Center<ul style="list-style-type: none">◦ All walls are up and ready for paint◦ Raised floor being installed• Radio Tower has been erected<ul style="list-style-type: none">◦ Fence installed with vegetation buffer	<ul style="list-style-type: none">• 911 Center Construction Continues• Radio equipment being installed in tower
4. Communications Systems	<ul style="list-style-type: none">• Radio consoles have been ordered• Based stations have been ordered• CPE has been ordered• Workstations have been ordered	<ul style="list-style-type: none">• Prep 911 Center for Radio Console installation• Prep 911 Center for Workstation Furniture• Prep 911 Center for CPE• Prep 911 Center for A/V• Facility systems coordination (Alarms, CCTV, Access Control, etc.)
5. Other Activity	<ul style="list-style-type: none">• Project status meetings with General Contractor• Project status meeting with Radio Tower Contractor• Conference calls conducted regularly to address immediate items for discussion• Participate in unscheduled calls to keep project moving forward• Approve invoices from contractors	<ul style="list-style-type: none">• Conduct project status meetings for General Contractor• Conduct project status meetings for radio tower contractor• Monitor Grant Budget and submit required reports• Determine exact A/V needs and place order• Confirm office furniture needs and place order• Approve contractor invoices



Graham County E911 Enhancement/Replacement Monthly Progress Report

March, 2016

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">Conducted facility programmingPFA Architects provided 1st draft facility plansSite survey vendor selectedPreliminary technical and dispatch design initiated	<ul style="list-style-type: none">Draft 2 of the facility schematic design to be presented to Graham CountyTechnical and dispatch design will continue
2. Permits	<ul style="list-style-type: none">Graham County permitting is completed for pre-construction activities	<ul style="list-style-type: none">Permitting for construction phase will be started
3. Construction	<ul style="list-style-type: none">MCP and PFA inspected the sitePFA is orienting the facility to the site and access to property lines and utility easementsUtilities and data access have been completed to the site property lines	<ul style="list-style-type: none">MCP, Graham County and the Architect will coordinate initiation of construction documentsMCP will coordinate with PFA to complete the preliminary construction schedule
4. Communications Systems	<ul style="list-style-type: none">MCP and PFA are working to identify the location of the radio tower on the rear of the propertyRadio system review and transition planning for the system to the new facility was initiated	<ul style="list-style-type: none">MCP will continue evaluation and development of a communication plan for the County
5. Other Activity	<ul style="list-style-type: none">MCP conducted conference project status conference calls with the County	<ul style="list-style-type: none">MCP will establish a bi-weekly conference call schedule with the County



Hyde County

Dare-Tyrrell-Hyde Regional Emergency Communications Center (DTH-RECC) – Hyde County Radio Communications & Simulcast Paging System

Monthly Progress Report

March, 2016

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">MCP completed specifications for the RFP, currently awaiting Hyde County documentMotorola provided project plan for microwave tower updates and new towers	<ul style="list-style-type: none">Hyde County will continue procurement process and issuance of the RFP for equipment and services
2. Permits	<ul style="list-style-type: none">Permitting process is delayed until vendor is selected	<ul style="list-style-type: none">Permitting process continues during this period
3. Construction	<ul style="list-style-type: none">Motorola has provided a tentative construction project planAwaiting RFP award for construction	<ul style="list-style-type: none">Construction documents for modifications as needed are being completed
4. Communications Systems	<ul style="list-style-type: none">MCP completed coordination with Motorola and Gately Communications to complete design of microwave path configuration	<ul style="list-style-type: none">MCP in conjunction with Gately communications will continue procurement process for microwave equipment
5. Other Activity	<ul style="list-style-type: none">MCP continued project status conference calls with the County and Gately Communications	<ul style="list-style-type: none">MCP will continue bi-weekly conference calls with the Clients



Richmond County
PSAP Consolidation and Construction
Monthly Progress Report

March 2016

Activity	This Period	Next Period
1. Design	<ul style="list-style-type: none">• Held scope meeting with ADW Architect• Conducted site visit with Architect• Evaluated B101 – 2007 Architect Agreement• Negotiated terms of Architect Agreement	<ul style="list-style-type: none">• Make recommendation to County Commission for ADW Architect• Award final contract to architect firm• Hold kickoff meeting with selected architect and begin facility programming
2. Permits	<ul style="list-style-type: none">• No Activity this reporting period	<ul style="list-style-type: none">• No activity anticipated on permitting for next reporting period
3. Construction	<ul style="list-style-type: none">• No Activity this reporting period	<ul style="list-style-type: none">• No activity anticipated on construction for next reporting period
4. Communications Systems	<ul style="list-style-type: none">• No Activity this reporting period	<ul style="list-style-type: none">• No activity anticipated on communications systems for next reporting period
5. Other Activity	<ul style="list-style-type: none">• No Activity this reporting period	<ul style="list-style-type: none">• Regular communications with project team, as needed

**Statewide Orthoimagery Program
Northern Piedmont and Mountains Orthoimagery 2014
FINAL REPORT**

Prepared for:

The North Carolina 911 Board

Prepared by:



North Carolina Center for Geographic Information and Analysis

March 2016

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EXECUTIVE SUMMARY

The NC Center for Geographic Information and Analysis (CGIA) serves as the project manager for the Statewide Orthoimagery Program funded by the NC 911 Board. The Board requires a consistent, accurate, high quality, seamless digital imagery product to support emergency response for Public Safety Answering Points (PSAPs). This program is defined by four distinct geographic phases across the state. The Northern Piedmont and Mountains Orthoimagery 2014 project is the third phase and the subject of this report.

The purpose of the Northern Piedmont and Mountains Orthoimagery 2014 project was to acquire and deliver high resolution imagery covering 12,349 square miles. The recipients of the product were the 34 Primary PSAP emergency operations centers in 26 counties identified below.

Alamance County Central Communications	Caswell County 911 Communications	Madison County 911	Surry County 911 Communications
Alexander County E9-1-1 Communications	Catawba County Communications Center	McDowell County 911 Center	Watauga County E911
Alleghany County E911	Davidson County 911	Mitchell County Central Communications	Beech Mountain
Ashe County Communications Center	Davie County 911 Communications	Randolph County 911	Boone Police Department 911
Avery County Communications Center	Forsyth County 911 Communications	Eden Police Communications	Wilkes County Emergency Communications
Burke County Consolidated 911 Communications	Winston-Salem Police Department	Reidsville Police Department Communications	Yadkin County Sheriff's Office
Morganton Department of Public Safety	Guilford Metro	Rockingham County 911 Communications	Yancey County E- 911
Valdese Public Safety Service Center	High Point Communications	Rowan County Telecommunications	
Caldwell County Sherriff's Office/E-911 Communications Center	Iredell County Emergency Communications	Stokes County Emergency Communications	

Consistent with earlier phases of the Program, the project team included the NC Department of Transportation, the NC Department of Public Safety, and the NC Department of the Secretary of State supported by a team of private contractors that were responsible for acquisition and production of orthoimagery.

Imagery is a mission critical asset that supports accurate, timely and effective placement of 911 calls in correct locations. The technical framework for this project was to deliver an advanced technology solution for data sharing and accessibility to current imagery resources by 911 operations, individual counties, and North Carolina's citizens. That solution, and the ultimate deliverable for this project, culminated in the distribution of data to PSAPs and county recipients along with the means to access the data online. This report provides details of the following core principles and paradigms of the Program. The fundamental objectives of the project, consistent with previous phases of the Program, were:

- 1) Provide a comprehensive, consistent, high quality, high resolution imagery product that is seamless across PSAP jurisdictions, county boundaries and city limits for all Primary PSAP call centers in North Carolina.
- 2) Instill confidence in 911 call dispatchers in the images and maps displayed in PSAPs across the state.
- 3) Realize the Board's vision to provide all North Carolinians equivalent, up-to-date base imagery that supports detailed mapping of streets and building locations, as well as accurate mapping of property boundaries.
- 4) Create a statewide geospatial building block for the next generation of 911.
- 5) Engage firms qualified to provide services on the basis of demonstrated competence and qualification for the type of professional services required without regard to fee.
- 6) Realize the full potential of the NC OneMap Geospatial Portal for organizing and providing access to statewide, high-resolution imagery.
- 7) Adhere to the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping* (State Standard) adopted October 1, 2009 (and updated in December 2014).
- 8) Accomplish the project team's objective of delivering the highest quality deliverable and rely on the project team to administer a proactive approach to project delivery rather than engage in reactive measures to quality issues.
- 9) Perform oversight and accountability of subcontractors through multiple deliverables of core compliance deliverables.
- 10) Provide a portal of simple communication through web content mapping and deliver a central means of project communication and collaboration through Microsoft SharePoint.
- 11) Institute a three-tiered approach to quality review through active participation by NCDOT, CGIA, and the PSAP and county end-user community to realize the Board's vision for early QC by stakeholders.
- 12) Deliver a product that represents the truest depiction of the highest quality imagery.

Qualifications

The selection of private contractors was rooted in a qualifications-based selection process (QBS) that adheres to the North Carolina "Mini-Brooks" State Statute [G.S. 143-64.31] which states:

“...to select firms qualified to provide such services on the basis of demonstrated competence and qualification for the type of professional services required without regard to fee other than unit price information at this stage, and thereafter to negotiate a contract for those services at a fair and reasonable fee with the best qualified firm. If a contract cannot be negotiated with the best qualified firm, negotiations with that firm shall be terminated and initiated with the next best qualified firm”.

Through QBS, CGIA realized cost savings through the practical application of advanced technology equipment most suited for the project area. This is especially true in the 2014 study area characteristic of extreme relief in the western third of the state. Unique to the Program, CGIA implemented specific mountain planning selection criteria to engage the most qualified contractors and the equipment proposed to acquire imagery in the mountains. Through the selection criteria the project team was able to not only explicitly quantify and justify the most logical equipment, but also understand significant cost savings as well. In summary, through qualifications, CGIA ultimately engaged the most advanced use of “2nd Generation” technology where appropriate. The Northern Piedmont and Mountains project was unprecedented in that four of the five contractors selected brought this advanced technology to the Program. The QBS process enables CGIA to deliver quality to the 911 Board by honoring a system rooted in qualifications rather than low bid.

Cost and Schedule

CGIA relies on sound costing methods, actuals, and comparable contractor cost balancing comparisons and per unit indicators. Private contractors account for almost 75% of the project budget and therefore monitoring the NC 911 Board’s investment is a top priority of the Program. Since 2012, CGIA has negotiated over \$488,000 in savings to the 911 Board. In 2014 final subcontractor cost negotiations yielded a savings of \$243,160 which is an 8% reduction from the budgeted amount for acquisition and production. CGIA utilizes an inflationary costing model based on project actuals that serves to provide a solid foundation and baseline for forecasting.

Past performance has demonstrated that costs are attributed to three primary factors: (1) the cost of fuel and overhead inflation, (2) the efficient use of advanced 2nd Generation sensors, and (3) the complexity of the study area, most notably the difficulty with mountainous terrain. CGIA and the team used these factors to obtain the most accurate cost projection for the project. The project concluded with a cost savings of \$258,957. This is largely attributable to a subcontractor surplus of \$57,370, IT hosting solution surplus of \$40,324, and labor surplus of \$158,900. Overall the project finished almost 13% under budget.

Quality, Compliance, and Oversight

CGIA mandates the need for a technical oversight body and emphasized oversight, accountability, and compliance at the forefront of priorities. The project team backs all decisions and specifications on sound industry practice and quantitative analysis and bases its deliveries and deadlines on firm and reasonable timeframes. In 2014, the project team implemented at least three tightened measures to insure project deliverables meet specifications. The first was to require draft flight plans as part of cost

proposals. This served not only to justify and define cost but also to insure that proposed plans were meeting preliminary specifications prior to formal delivery. The second was to increase detailed specifications for flight geometry and gaps. A detailed mountain planning analysis was conducted to assess minimum requirements. The third was the implementation of a 38-degree sun angle requirement for extreme relief which minimizes shadowing.

To achieve the project team's objective of administering a proactive approach to quality, contracted requirements are implemented for the delivery of core attachment deliverables of signed and sealed compliance documentation as follows either per study area, per aerial triangulation block, or per county for a total of 75 reports.

1. *Flight and Control Plan (5)*
2. *Ground Control Survey Report (5)*
3. *Imagery Acquisition Compliance Report (17)*
4. *Airborne GNSS-IMU Post Processing & Aerotriangulation Report (17)*
5. *Orthoimagery Delivery Report (26)*
6. *Final Report (5)*

Per the direction and vision of the 911 Board, local stakeholders, as well as the project team, were actively involved early in the visual quality assurance/quality control process ultimately yielding a better product with minimal follow up issues. Specifically, a representative sample of tiles were reviewed by the designated reviewer group with 30% of tiles reviewed by NCDOT, 5% reviewed by CGIA, and 25% reviewed by PSAP/county reviewers. In 2014, 8,027 square miles were reviewed that represents 65% of the total study area. This was accomplished through a system called VOICE which has been developed and enhanced throughout the first three years of the Program. VOICE (Virtual Online Inspection, Checking and Editing) is a GIS web-based tool that hosts imagery stored in the cloud. VOICE contains a suite of tools that facilitate QC of all imagery developed for the project. The VOICE tool was well received by the PSAP and local government reviewers as an effective means of contributing to the quality control process. VOICE meets the following objectives:

1. Satisfies the NC 911 Board's requirement to provide end users the ability to review the product prior to delivery to the PSAPs.
2. Provides secure access by end-user points of contact to review imagery as it is completed by contractors.
3. Stores imagery hosted in the cloud thus eliminating the need to deliver external drives that increase costs and scheduling complexity.
4. Provides an effective solution for reviewing imagery seamlessly.

Overall, the quality review process benefited from an increase in end-user participation and support, as demonstrated by six counties achieving over 80% total area reviewed and three of those counties achieving 100% quality review through VOICE. In comparison, the previous two project years combined had one county achieving 100% review. The table below demonstrates the final QC statistics derived from VOICE. A tile represents a 5,000-foot by 5,000-foot area on the ground.

County	Tiles Per County	Percent Reviewed	Passed Review	County	Tiles Per County	Percent Reviewed	Passed Review
Alamance	558	61%	94%	Iredell	681	63%	87%
Alexander	289	100%	84%	Madison	630	60%	98%
Alleghany	301	63%	90%	McDowell	517	60%	88%
Ashe	545	93%	92%	Mitchell	290	60%	90%
Avery	318	61%	92%	Randolph	954	60%	88%
Burke	590	62%	90%	Rockingham	653	60%	94%
Caldwell	526	61%	97%	Rowan	621	40%	80%
Caswell	526	35%	94%	Stokes	526	40%	84%
Catawba	496	100%	95%	Surry	626	100%	83%
Davidson	626	60%	92%	Watauga	366	63%	93%
Davie	306	81%	84%	Wilkes	839	62%	87%
Forsyth	456	66%	79%	Yadkin	381	36%	87%
Guilford	754	98%	91%	Yancey	396	35%	99%
				Total	13,771	65%	90%

Lines of Communication

CGIA emphasized communication with 911 Board staff and the primary PSAP staff points of contact (POC) throughout the planning and execution of the project. Open lines of communications with the POCs are critical and facilitate the best flow of key information including news, updates, status, and delivery. In 2014, CGIA streamlined contact with the POCs through the development of more visual dynamic web-mapping content as an alternative to traditional dialog or static graphics as follows:

1. Quality review schedule: Counties symbolized by the specific start dates for end-user QC review
2. Final delivery sites: Locations of regional meetings grouped by counties represented at each meeting
3. Final delivery: Detailed boundaries of the final deliverable per county. This map served to confirm coverage of the final product, but also to determine if additional coverage might be developed as an exception

Product Delivery

Through the work of the project team, private contractors, and local PSAPs and county GIS staff, the project successfully implemented 2nd Generation sensors and delivered a product with an initial 90% pass rate on time and under budget. Final products were delivered in January 2015 at multi-jurisdiction meetings in Boone, Greensboro, Marshall, Morganton, Salisbury, and Winston-Salem. The orthoimagery product was subsequently released for public access through NC OneMap thereby achieving another important goal of the 911 Board.

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1. Project Background

Digital aerial imagery is the most fundamental dataset for use with geographic information systems in local, state, and federal government and in numerous private and non-profit organizations. The 2010 Statewide Orthoimagery project confirmed that imagery is used by Public Safety Answering Points (PSAP) for visual reference and for accurate street mapping, by counties to map property boundaries and infrastructure, and by a range of users to display land use and impervious surfaces.

Orthoimagery is used in search and rescue operations, by the state emergency management office for emergency response planning and development of hazard mitigation plans, and by the floodplain program to develop flood insurance rate maps; it is used by the NC Department of Agriculture and Consumer Services for bio-emergency planning operations; it is used by the NC Department of Transportation (NCDOT) for highway mapping and planning; and by numerous other local, state and federal organizations to get a clear, current, and accurate picture of the landscape. In addition, other groups, such as the engineering and surveying industry, utilities, and real estate development use aerial imagery to meet their location-based business needs. The North Carolina Geographic Information Coordinating Council recognized orthoimagery as a priority dataset, and the GIS Study, requested by the General Assembly and conducted by the NC Office of State Budget and Management, recommended funding of orthoimagery as a key dataset that would yield multiple benefits.

Since the 2010 delivery, the Statewide Orthoimagery Program was established to implement a four-year cycle of orthoimagery acquisition based on the Business Plan for Orthoimagery in North Carolina and its recommended annual approach (See Figure 1). This plan was adopted by the NC 911 Board as the path forward to update the 2010 orthoimagery by acquiring new data for one-fourth of the state per year over four years. Phase 3 (Northern Piedmont and Mountains Orthoimagery 2014) covering the northwestern portion of North Carolina was funded in July 2013 and all 26 counties were delivered to Primary PSAPs in the first quarter of 2015. The Northern Piedmont and Mountains Orthoimagery 2014 project is the subject of this report.

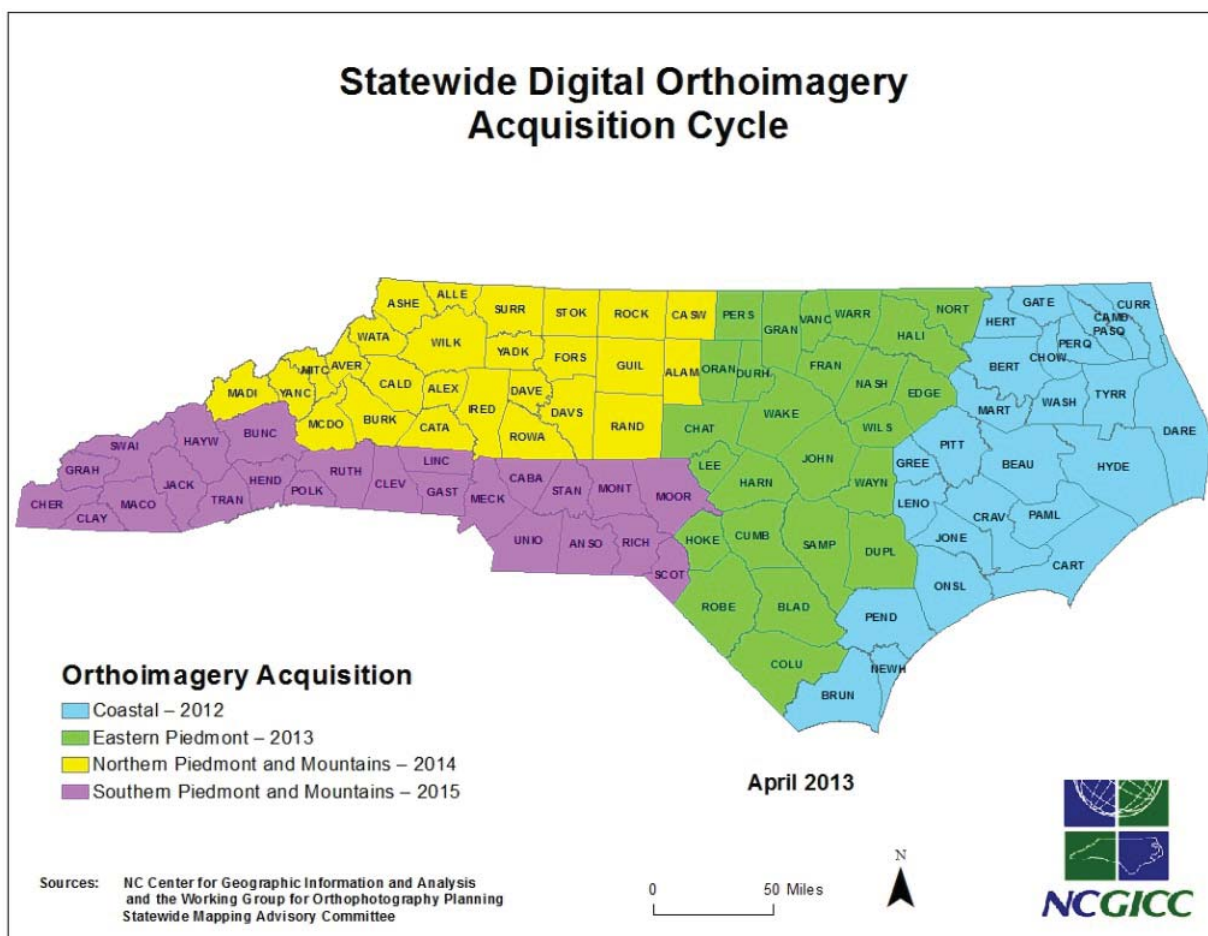


Figure 1: Statewide Orthoimagery by County, North Carolina

1.1. Achievements

The Northern Piedmont and Mountains Orthoimagery 2014 project achieved all of its objectives. In summary, imagery of the highest quality was delivered on time and within budget to Primary PSAPs and county representatives in 26 counties in the northern piedmont and mountains (Table 1). The state project team consisting of the North Carolina Center for Geographic Information and Analysis (CGIA), NCDOT, NC Department of Public Safety-Geodetic Survey (NCGS), and the NC Department of the Secretary of State-Land Records Management Section worked closely throughout the project to address technical and policy issues and provide oversight to the five private contractors assigned to the project.

Local stakeholders were actively involved early in the quality assurance/quality control process yielding a better product with minimal follow up issues. The quality control process took advantage of a cloud-based solution called VOICE (Virtual Online Inspection, Checking and Editing) for interactive review of imagery and made the review process more efficient than traditional methods. The VOICE tool was well

received by the PSAP and local government reviewers as an effective means of contributing to the quality control process.

Alamance County Central Communications	Caswell County 911 Communications	Madison County 911	Surry County 911 Communications
Alexander County E9-1-1 Communications	Catawba County Communications Center	McDowell County 911 Center	Watauga County E911
Alleghany County E911	Davidson County 911	Mitchell County Central Communications	Beech Mountain
Ashe County Communications Center	Davie County 911 Communications	Randolph County 911	Boone Police Department 911
Avery County Communications Center	Forsyth County 911 Communications	Eden Police Communications	Wilkes County Emergency Communications
Burke County Consolidated 911 Communications	Winston-Salem Police Department	Reidsville Police Department Communications	Yadkin County Sheriff's Office
Morganton Department of Public Safety	Guilford Metro	Rockingham County 911 Communications	Yancey County E-911
Valdese Public Safety Service Center	High Point Communications	Rowan County Telecommunications	
Caldwell County Sherriff's Office/E-911 Communications Center	Iredell County Emergency Communications	Stokes County Emergency Communications	

Table 1: Primary PSAPs in the Project Area

The orthoimagery was successfully loaded onto the NC OneMap Geospatial Portal, enabling free and quick access by public and private sector users.

1.2. Deliverables

Technical

- 1) Orthoimagery, true color with 0.5-foot resolution in 5,000 by 5,000 foot tiles (equivalent to a mapping scale of 1 inch – 200 feet) in GeoTIFF, MrSID (20:1 compression ratio), and 50:1 compression ratio) format to 34 county and municipal Primary PSAPs

- 2) Project metadata in txt, HTML, and XML per format per county
- 3) Continuously Operating Reference Station (CORS) network report
- 4) NC OneMap Geospatial Portal Image Services and applicable data
- 5) Outreach workshops
- 6) A functional and operable online QC application
- 7) 60-day local review and client satisfaction period
- 8) A minimum of 60% coverage area visual QC that confirms a product free of degradation and most resembles the truest representation of the highest quality imagery

Reports and Requirements Documentation

- 1) Weekly contractors' status reports
- 2) Monthly invoicing and accomplishments
- 3) Distribution schedules
- 4) Documentation providing permissions, limitations, and any restrictions regarding collection and use of orthoimagery comprising military properties within the Scope of the Project
- 5) Seven core project compliance documentation deliverables
- 6) Final Report and Contractors' Lessons Learned Reports
- 7) Guidelines for orthorectification specifications and procedures
- 8) NCGS horizontal quality review reports
- 9) 60-day local review and client satisfaction period customer surveys

2. Schedule and Milestones

The project schedule covered 110 weeks from July 1, 2013 through June 30, 2015, defined by six blocks of core phases including four months of Qualifications-Based Selection (QBS), two months of project planning, two months of acquisition, four months of post processing, four months of quality review, two months of post-delivery review, NC OneMap implementation, and closeout.

Table 2 represents the components of the project. The project team established planned start and finish dates early in the project for these milestones. Actual finish dates were recorded when milestones were completed.

Northern Piedmont and Mountains Orthoimagery 2014 Final Report – March 2016

TASK	ITEM	PLANNED START	PLANNED FINISH	ACTUAL FINISH
1	Project Initiation	8/1/2013	12/19/2013	03/12/2014
	Issue RFQ for Orthoimagery QBS	9/5/2013	9/5/2013	9/5/2013
	Closing date for RFQ responses	9/25/2013	9/25/2013	9/5/2013
	Contract NCGS	9/1/2013	9/1/2013	9/11/2013
	Contract NCDOT	9/1/2013	9/1/2013	9/11/2013
	Select pre-qualified applicants	10/18/2013	10/18/2013	10/18/2013
	Host workshop for selected applicants	11/5/2013	11/5/2013	11/5/2013
	Technical and cost proposals due	11/19/2013	11/19/2013	11/19/2013
	Negotiate with selected applicants	12/3/2013	12/3/2013	12/5/2013
	Approve and sign all contracts by state and selected applicants	12/18/2013	12/18/2013	12/18/2013
	Kickoff Meeting	12/19/2013	12/19/2013	12/19/2013
	Contract with QC Service Provider	2/1/2013	2/1/2013	3/12/2014
2	Planning and Design	10/1/2013	1/30/2014	1/27/2014
	CORS Upgrades	10/15/2013	1/15/2014	1/15/2014
	Validation Range	10/15/2013	1/15/2014	12/17/2013
	RTN Maintenance	10/15/2013	1/15/2014	1/30/2014
	Flight planning compliance documentation	12/19/2013	1/30/2014	1/27/2014
3A	Acquisition	2/15/2014	4/30/2014	4/10/2014
	Acquire 26 Counties	2/15/2014	4/30/2014	4/10/2014
3B	Acquisition Post-Processing	2/15/2014	7/31/2014	7/31/2014
	Specifications workshops, post processing, develop and approve compliance documentation	2/15/2014	7/31/2014	7/31/2014

TASK	ITEM	PLANNED START	PLANNED FINISH	ACTUAL FINISH
4	Quality Review Production and Product Delivery	7/15/2014	1/31/2015	1/28/2015
	QC Production Cycle	8/1/2014	12/30/2014	12/18/2014
	Product Delivery	1/15/2015	1/31/2015	1/28/2015
5	Implementation	1/16/2015	3/30/2015	4/17/2015
	Implement the NC OneMap Geospatial Portal solution	2/1/2015	Ongoing	
	60 day End-User Evaluation	1/16/2015	3/30/2015	4/17/2015
6	Project Closeout	4/1/2015	6/30/2015	6/30/2015
	Final Data Packaging and Final Reports	4/1/2015	5/31/2015	5/31/2015
	Project Closeout	6/1/2015	6/30/2015	6/30/2015

Table 2: Project Milestones

3. Project Scope and Management

3.1. Responsibilities

This collaborative project took advantage of strategic resources from statewide 911 management and operations, the core collaboration project team, state standards and specifications, state technical services, the statewide GIS coordination structure, and ongoing statewide initiatives. The following are the specific project responsibilities shared and distributed among the six core members of the project collaboration team. Figure 2 is the project organization chart.

NC 911 Board

The NC 911 Board is the client for the orthoimagery product. The Board requires a consistent, accurate, high quality product for distribution to PSAPs across the study area. It provided guidance to CGIA through the planning, implementation, and delivery stages of the project. The 911 Board received periodic briefings and monthly status updates on the project and provided feedback to the project team as needed.

NC Center for Geographic Information and Analysis (CGIA)

CGIA performed services including Qualifications-Based Selection processes, project administration, invoicing, quality control, and product delivery. The agency houses the NC OneMap Geospatial Portal

and specified the detailed requirements for information technology upgrades in the NC OneMap framework. CGIA conducted outreach by communicating with counties and cities, contractors, state agencies, federal partners, and the public to explain the products and benefits of the Program, performed quality review of 5% of the project study area, insure compliance with DOD national security, and served as project manager for a collaboration of state agencies under contract to the NC Department of Information Technology (DIT). These included the NC Department of Public Safety-NC Geodetic Survey (NCGS), the NC Department of Transportation (NCDOT) Photogrammetry Unit, and five private sector contractors. In addition, CGIA solicited guidance and recommendations from the Department of the Secretary of State and the Working Group for Orthophotography Planning within the Statewide Mapping Advisory Committee.

NC Department of Transportation (NCDOT) Photogrammetry Unit

NCDOT performed technical and advisory services. NCDOT has expertise and experience in managing orthoimagery acquisition, utilizing software for evaluating photogrammetric deliverables, performing oversight, developing, evaluating, and approving compliance documentation, and managing and performing visual quality control of up to 30% of the study area. NCDOT served as the core responsible party for insuring compliance of photogrammetry specifications.

NC Department of Public Safety-NC Geodetic Survey (NCGS)

NCGS performed technical advisory services for survey control, establishing field network systems, performing field maintenance, and for managing independent field quality control through a QBS process. NCGS has expertise and experience in managing photogrammetric deliverables, performing oversight, developing, evaluating, and approving compliance documentation, and managing and performing field quality control. NCGS served as the core responsible party for upgrading and maintaining the Continuously Operating Reference Station (CORS) network for GNSS in North Carolina, maintaining the aerial camera validation range located in Surry County, setting survey control standards, and administering compliance for horizontal quality control.

NC Department of the Secretary of State

The Department of the Secretary of State (NCSOS) is the author of the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping (the Standard)*, the state standard for orthoimagery acquisition. This standard was used as a foundational component of the statewide effort to ensure accuracy and consistency in the final product delivered to the PSAP community and other users. NCSOS served as the core responsible party for administering compliance to the orthophoto standards that serve as the fundamental framework of specifications for the acquisition contractors.

NC Primary Public Safety Answering Points

The Primary Public Safety Answering Points (PSAPs) and the local government representatives were critical to the successful completion of the project. These collaborators are the local experts for their geographic area. PSAP and county representatives performed early quality review and submit issues for resolution, received final delivery of the orthoimagery product from CGIA, and performed final 60-day review of the orthoimagery products.

Photogrammetric Services Contractors

Private contractors, managed by CGIA with support from collaborating members of the state project team, performed aerial imagery acquisition and processing of 26 counties. The five primary contractors were: Atlas Geographic Data, Photo Science, Sanborn Map Company, Spatial Data Consultants, and Surdex. The contractors submitted initial orthoimagery products to the online quality control software application by county that met *North Carolina Technical Specifications for Digital Orthophoto Base Mapping*. The contractors prepared and delivered a number of reports/documentation including Flight Planning, Survey Control, Imagery Acquisition Compliance, Exploitation Image Post Processing, Airborne GNSS Post Processing, Aerotriangulation, Orthoimagery Delivery, and Quality Review Resolutions. Metadata and other interim products were also delivered, and issues identified from the project team and client end-users during the quality review process were resolved.



Figure 2: Project Collaboration Team

3.2. Dependencies

The primary dependency for this project was the limited number of days of suitable conditions for flying and acquiring aerial images. Image acquisition requires clear skies, sun angle not under 33 degrees in the Piedmont and 38 degrees in the mountains to limit shadow length, and deciduous trees free of spring foliage. Directly dependent to this was the study area was representative of eight counties of extreme relief. Significant pre-planning by the team was invested to insure project specifications would be met. Finally, a third factor worth noting was the increase in technology utilized for the project that ultimately resulted in, not only efficiency in meeting specifications, but also resulting in cost savings for the 911 Board. Oversight and compliance of specifications are fundamental to meeting the state standard in addition to the specifications defined in the seven core compliance documents defined in section 4.5.4.

4. Communications

The project team followed a communication plan that took advantage of the coordination structure of the NC Geographic Information Coordinating Council (GICC), the NC OneMap website, other technical projects with state partners, and outreach to professional organizations. In addition, Section 4.3 demonstrates the use of web mapping for establishing open lines of communication in an efficient and intuitive manner.

4.1. Project Team Meetings

Acquisition contractors' status calls and project team meetings were scheduled for each Wednesday at CGIA. The agenda for each meeting included a vendor roundtable summarizing their weekly status report followed by an internal meeting of the state project team.

4.2. GIS Coordination Structure

This project engaged the GIS coordination structure in North Carolina to assure that products and services met the needs of the primary users (local 911 and GIS operations) and added value to the work of a wide range of GIS stakeholders. The coordination structure is well established, and its many members are active, willing and able to offer technical and other advice, communicate preferences, and highlight the benefits of the project.

4.2.1. GICC Committees

The Statewide Mapping Advisory Committee's Working Group for Orthophotography Planning met quarterly and served as a technical advisory group. CGIA serves as staff to this group and coordinated work with the group by providing updates on the Northern Piedmont and Mountains project.

The GICC has representation from private businesses, nongovernmental organizations, local governments, state agencies, federal government, and the university system. The project reported at each quarterly meeting of the GICC and reported to several of the Council's subcommittees including the Statewide Mapping Advisory Committee, the State Government GIS Users Committee, the Federal Interagency Committee, the Management and Operations Committee, and the Local Government Committee as requested.

4.3. NC OneMap Website

The project team maintains project websites on the www.nconemap.gov website. Individual pages were maintained for information regarding the overall Statewide Program, the Statewide 2010 project, the Coastal Orthoimagery project, the Eastern Piedmont project, and the Northern Piedmont and Mountains project. Content includes project overview, detailed description, frequently asked questions, project status, and resources, and links to resources such as the orthoimagery standard and the business plan for orthoimagery. CGIA notified Primary PSAPs and local GIS contacts about the establishment of the project pages and about release of the new imagery in the Geospatial Portal. The NC OneMap Geospatial Portal also offers data download for GIS datasets; image services for 2010, 2012, and 2013; data discovery; and various resources for GIS users.

4.3.1. Interactive Lines of Communication

The 2014 project website added interactive mapping content for conveying and distributing project-related data. Details about the imagery acquisition dates, quality review schedule, quality review resolutions, contractor study areas, and final delivery schedule were all communicated through interactive map panels. Figure 3A demonstrates one of five project map panels from the project website where end users are able to query any of the over 43,000 exposures to determine the exact date and time that each exposure was collected for any given point in the study area. This has become a valuable tool for anyone attempting to determine when ground conditions represented in the imagery actually occurred.

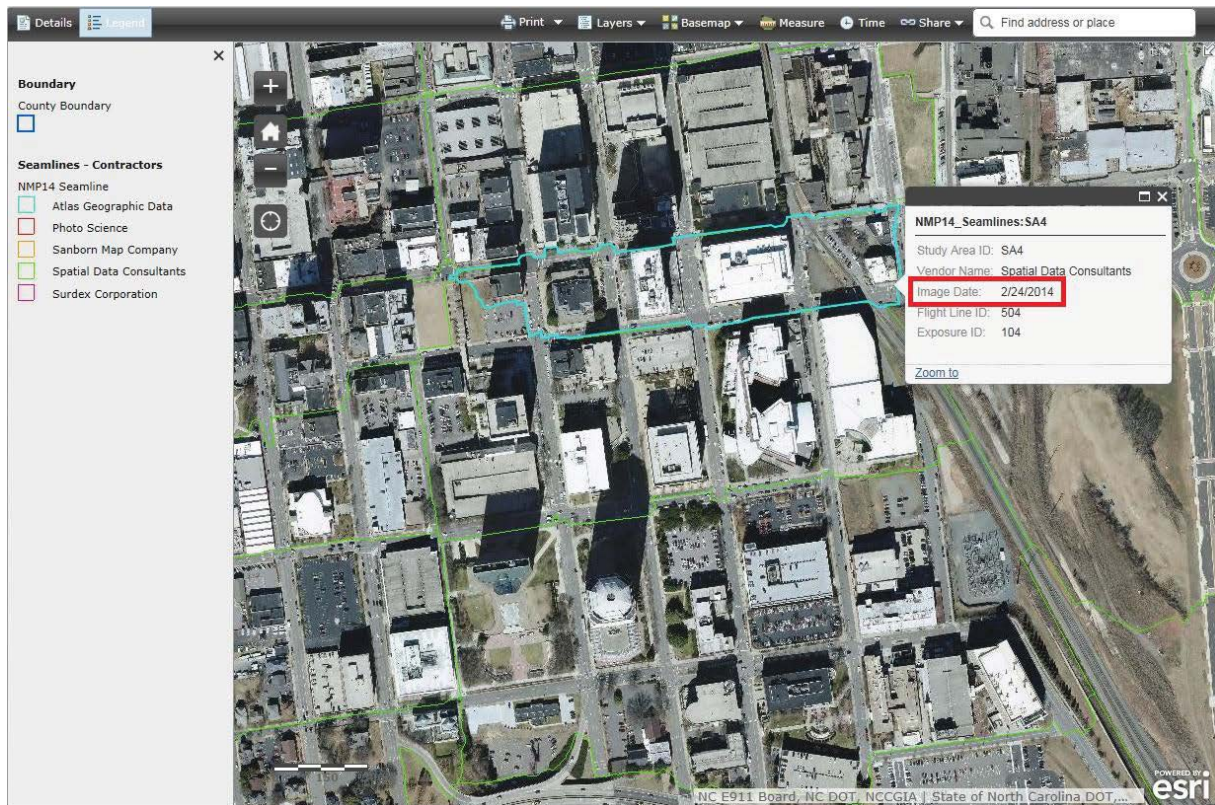


Figure 3A: Project Website – Acquisition Summary Map Panel

The Figure 3B map panel was used to convey details about the quality review process. Before quality review began in August 2014, this map was used to distribute information about the process, such as County review start dates and tiles designated for end-user review. Once the review period was completed, the map panel evolved into an interface for communicating with the end-users about how reported errors from the review process were resolved. By selecting an error rectangle in the map interface, users can view the submitted issue as it was observed at time of QC and compare to the corrected imagery shown in the basemap of the interface. This proved to be a quick and interactive method of presenting the results of the effort put into the review process by end-users.

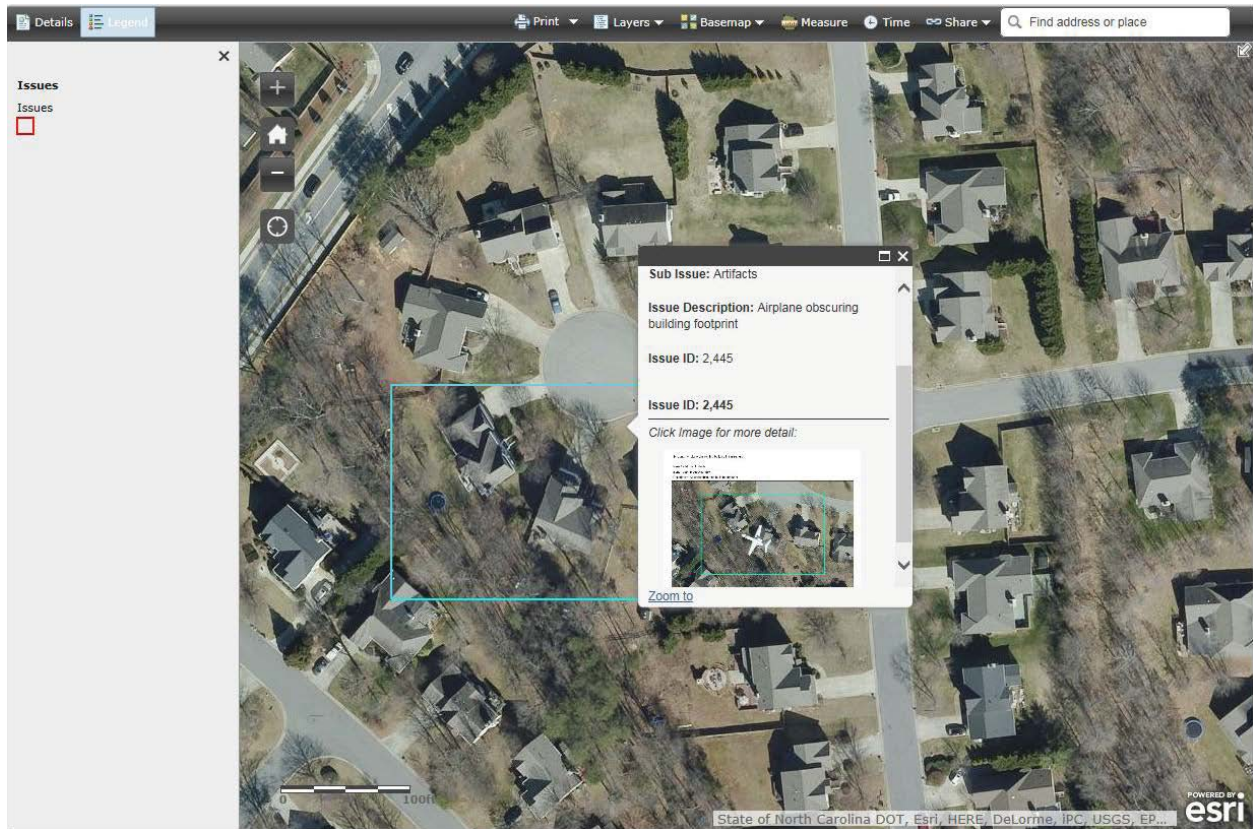


Figure 3B: Project Website – Quality Review Map Panel

4.4. Outreach to Professional Organizations and Other Data Users

With the purpose of reaching users of orthoimagery who will benefit from the project, CGIA and the project team participated in meetings of professional organizations to convey the scope, approach, and benefits of the project. The team presented project explanations and updates to organizations that included the NC Eastern ArcGIS Users Group and three events of the NC Property Mappers Association. CGIA established one point of contact each for all Primary PSAPs and County GIS Coordinators. This served two purposes: (1) to serve as a means of communication throughout the project lifecycle and (2)

to serve as imagery QC lead for the online QC application used by the project. CGIA provided presentation slides to the Executive Director of the NC 911 Board on an as needed basis. The Land Records Management Section in the Department of the Secretary of State as well as the NC Geodetic Survey presented on the project at a large number of events.

4.5. Project Reports

The project team was responsible for maintaining three levels of reporting progress on a regular basis to the Executive Director of the NC 911 Board as well as maintaining a suite of compliance documentation.

4.5.1. Reporting for Weekly Submission of Project Status to CGIA

CGIA required weekly progress reports from the private sector contractors assigned to the project. These were distributed to the project team every Wednesday morning for review prior to the weekly status meeting that afternoon. These reports allowed the project team to maintain constant awareness of contractor progress and to identify and resolve any issues early. This was particularly critical during the imagery acquisition phase of the project.

4.5.2. Reporting Monthly Invoices and Invoice Accountability Status to the NC 911 Board

CGIA received monthly status report and invoices from the contractors and submitted them to the NC 911 Board. The reports included the following:

1. Accomplishments for the month
2. Status of major tasks
3. Expenditures for the month and cumulative expenditures and balance for the project
4. Detailed accountability documentation that serves the purpose of justification for all expenditures.

4.5.3. Monthly and Quarterly Presentations Submitted to the Executive Director of the NC 911 Board

CGIA presented to the NC 911 Board as requested.

4.5.4. Project Milestone Compliance Reporting

To achieve the project team's objective of administering a proactive approach to quality, contracted requirements were implemented for the delivery of core attachment deliverables of compliance documentation as follows either per study area, per AT block, or per county for a total of 90 reports.

1. *Flight and Control Plan (5)*
2. *Ground Control Survey Report (5)*
3. *Imagery Acquisition Compliance Report (17)*
4. *Airborne GNSS-IMU Post Processing & Aerotriangulation Report (17)*
5. *Orthoimagery Delivery Report (26)*
6. *Orthoimagery Quality Review Report (26)*

7. Final Report and Lessons Learned (5)

5. Procurement

The magnitude of this project required engagement of five private photogrammetric services contractors with specific expertise in photogrammetry. CGIA adheres to the guidelines set forth in the Mini-Brooks Act (G.S. 143-64.31 et seq) to select firms qualified to provide such services on the basis of demonstrated competence and qualification for the type of professional services required without regard to fee. In addition, sole source contracted services for VOICE were performed. All other contracted services were handled through agreements with state agencies including DIT. The large amount of acquired and processed data required investment in information technology to support and improve public access to the new imagery. The project maintains redundant data storage at both the Eastern and Western Data Centers operated by DIT.

5.1. NCDOT Photogrammetry Unit

The NCDOT Photogrammetry Unit provided expert support to the project team in the area of photogrammetry. Specifically, NCDOT performed the following tasks:

1. Developed a tile review schema that supported a 30% NCDOT, 5% CGIA, and a 25% PSAP/county quality review of the study area
2. Performed an orthoimagery tile quality review for image anomalies with a limit of three anomalies per tile (before rejecting that tile)
3. Evaluated anomalies and submit the results to CGIA
4. Performed a visual and quantitative comparison of orthoimagery tiles with exploitation images
5. Verified corrections to failed tiles provided by CGIA
6. Prepared an Orthoimagery Summary Evaluation Report for each county
7. Developed MrSID 20:1 compression image format for each tile for a county and developed 50:1 compression MrSID mosaic format for each county
8. Supported QBS selection process conducted by CGIA leading to qualification of vendors and selection of final set of contractors for imagery acquisition
9. Provided ongoing assistance to CGIA as part of project management and oversight activities

5.2. NC Department of Public Safety-NCGS

The NC Geodetic Survey provided expert support to the project team in the areas of surveying, GNSS, and horizontal quality control. Specifically, NCGS performed the following tasks:

1. Performed pre-flight geodetic control maintenance and updates to facilitate flight acquisition
2. Conducted QBS process to qualify vendors for horizontal quality control tasks
3. Performed field quality control review and evaluated visual quality review and provided recommendations

4. Supported QBS selection process conducted by CGIA leading to qualification of vendors and selection of final set of contractors for imagery acquisition
5. Provided ongoing assistance to CGIA to support project management and oversight activities

5.3. NC OneMap IT Infrastructure / Hosting Services

In 2012, CGIA completed a Technical Architecture System Design with assistance from DIT, and based on the plan, procured new redundant and failover servers in the DIT Western Data Center. DIT continued hosting services for storing and serving 2010, 2012, 2013, and 2014 orthoimagery, respectively.

6. Project Phases

The purpose of this section is to present the primary project workflow approaches organized by logical periods of the project, to document the relevant variations in this project relative to the 2013 effort, and to present future recommendations. The Statewide Orthoimagery Program consists of four mirrored phases each consistent in approach where each subsequent phase builds not only on the success of the previous phase but also on recommendations for improvement. The project term begins in July and proceeds through a two-year cycle ending in June. The project lifecycle is defined by six core blocks:

1. Project Initiation, QBS, and Procurement
2. Planning and Design
3. Imagery Acquisition and Post Processing
4. Production
5. Implementation
6. Closeout

Block 1: Phase Initiation (Jul 2013 – Jan 2014)

The purpose of this block is to develop contracts with public and private sector project partners, and begin other administrative tasks in preparation for orthoimagery acquisition. Specific activities during this block include:

1. Develop statements of work, develop and execute contracts between CGIA and the NC 911 Board and with other public and private organizations.
2. Manage a QBS process for private sector contractors and issue purchase orders. Specifically, the QBS process is defined by the following logical sequence of events:
 - a. Engage the project team to develop a Request for Qualifications (RFQ).
 - b. Hold an open-bid for a period of 20 days including a question-and-answer period.
 - c. Develop a pre-qualified selection of candidates based on unbiased review and collaboration by a panel of six state project team members.
 - d. Conduct a pre-proposal workshop followed by submittal and review of cost proposals.
 - e. Perform contract negotiations.
 - f. Issue purchase orders.

2013 Variations:

1. Developed specific RFQ selection criteria to submit pilot flight plans for a pre-determined mountain study area representative of extreme relief as well as demonstrate qualifications and efficiencies for meeting enhanced specifications. This single selection criterion served to document the applied use of the most advanced sensor technology in the industry thereby leading to cost savings for the 911 Board through efficiencies gained. As an example, Figure 4 demonstrates the practical use of advanced sensors where focus is placed on, at a minimum, three demonstrated efficiencies:
 - a. Reduced number of flight lines
 - b. Reduced number of exposures
 - c. Reduced acquisition time

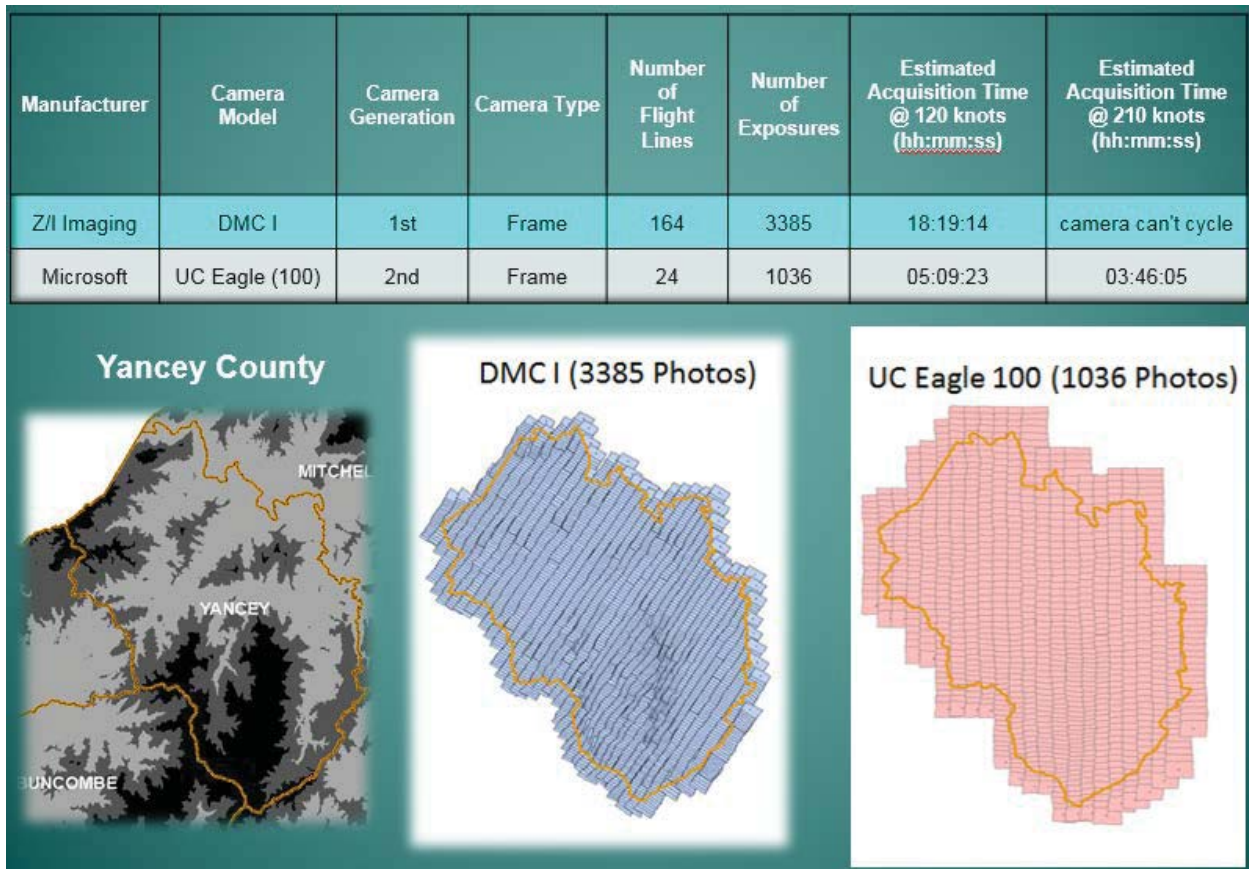


Figure 4: RFQ Selection Criteria Mountain Flight Planning Comparison

Future Recommendations:

1. Maintain the same mountain flight planning criteria for 2015.

Block 2A: Planning and Design (Nov 2013 – Jul 2014)

The purpose of this task is plan the technical details of the project, conduct workshops, finalize technical requirements, initiate outreach, implement the quality review application, and develop, engage, review, and approve quality compliance documentation.

Specific activities under this task include:

1. Pre-Flight: Manage contracts, generate and finalize work orders, validate digital sensors using NC's validation range and procedures, produce, review and finalize detailed flight plans, design and implement ground control point locations, select project datasets for county boundaries and the statewide tile grid, finalize metadata templates, design the visual quality control process, design the horizontal quality control process, design the data validation process, and set milestones.
2. Requirements Workshops: Conduct kickoff and planning workshops with all applicable parties including project partners, contractors, and the Geographic Information Coordinating Council, Working Group for Orthophotography Planning.
3. Quality Control Application: Develop requirements, develop system design and testing procedures, conduct testing, and release the Virtual Online Inspection, Checking, and Editing (VOICE) application secured through the acquisition vendor contract. See Section 5.5 for production details.
4. Outreach: Perform outreach and conduct training programs for PSAPs and local government points of contact to perform quality review during the Production stage. CGIA worked with the NC 911 Board to identify the appropriate contacts.

2013 Variations:

The application of lessons learned was significant for Planning and Design and can be summarized in three categories:

1. Approach to landcover guidelines
2. Military engagement
3. QC Delivery Order

Landcover Guidelines

In 2014, the project team developed sets of target images based on similar specifications from 2013. These targets were derived from 2010 raw imagery from specific locations selected by the project team. In 2013, the targets represented one landcover type per physiographic region in the Piedmont: Coastal, Piedmont, or Sandhills. For the 2014 project, the contractors were provided with one landcover target per landcover type. The goal was to enable contractors to apply evaluation samples early to be approved by the project team well ahead of post processing during and after acquisition. This element of process improvement added more efficiency and consistency to the work of the contractors and the project team.

Landcover Types

1. Urban Industrial
2. Rural/Farmland/Wooded
3. Suburban/Residential
4. Mountains

Military Engagement

There were no special use airspaces in the 2014 project. This is a major departure from the 2012 and 2013 projects where extensive military engagement was required.

Product Delivery Order

The project team held a kickoff meeting in December 2013 to initiate the project and prepare for imagery acquisition. During the meeting the project team released the delivery order of one county per contractor every week. Lessons learned from the 2013 project stated that the delivery order precedent should be set prior to acquisition to facilitate flight planning. Therefore, in 2014 the delivery order was determined and a schedule established during the kickoff meeting to enable contractors to efficiently plan imagery acquisition for each study area.

Future Recommendations:

Delivery order should be planned out at time of cost proposal (i.e., during the QBS process) to facilitate the development of valid costs as well as set the precedent for effective communications at time of kickoff.

Contractors should only be required to apply landcover targets for landcover types that exist in each particular study area. Some study areas in the mountains may not have an urban area to utilize the urban target provided. Additionally, some piedmont study areas may not have a mountain landcover type available to utilize the mountain landcover target. Targets should be derived from the most recent project year instead of the 2010 raw frames used for 2013. This will allow targets to be generated from the latest sensor technology and from overlapping project areas where possible. This improvement should allow for an increased level of consistency between phases.

Block 2B: Imagery Acquisition and Post Processing (Feb 2014 – Jul 2014)

The purpose of this task is to acquire leaf-off imagery and to perform and document all post processing activities prior to product delivery for the Phase 3 area. The flying season is driven by sun angle and vegetation per the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping*, the state standard. The goals are to minimize shadows and vegetative cover that would obscure infrastructure or other key objects on the ground.

Specific activities under this task include:

1. Conduct flights and acquire orthoimagery for the 26 Phase 3 counties, and verify that images captured meet state specifications.

2. Develop imagery specifications to facilitate consistent radiometric deliverables across varying land classifications and contractor study areas.
3. Perform all post processing activities required to develop a tile-based orthorectified product.
4. Deliver acceptance documentation for acquisition and all post processing submittals.

2013 Variations:

Sun Angle Specifications

Due to the mountainous terrain that comprises a large portion of the 2014 project area, the sun angle specification was modified to increase the required minimum sun angle for the flying season in the mountainous areas (Figure 5). Using a 38-degree sun angle specification in the mountains minimizes the amount of shadowing that would normally result in areas of extreme relief. This specification reduces the daily acquisition time by only 45 minutes and serves to reduce the impact that, quite simply, many locations in the western mountains never receive sunlight! Figure 6 demonstrates a study of one of ten locations that summarize these conclusions.

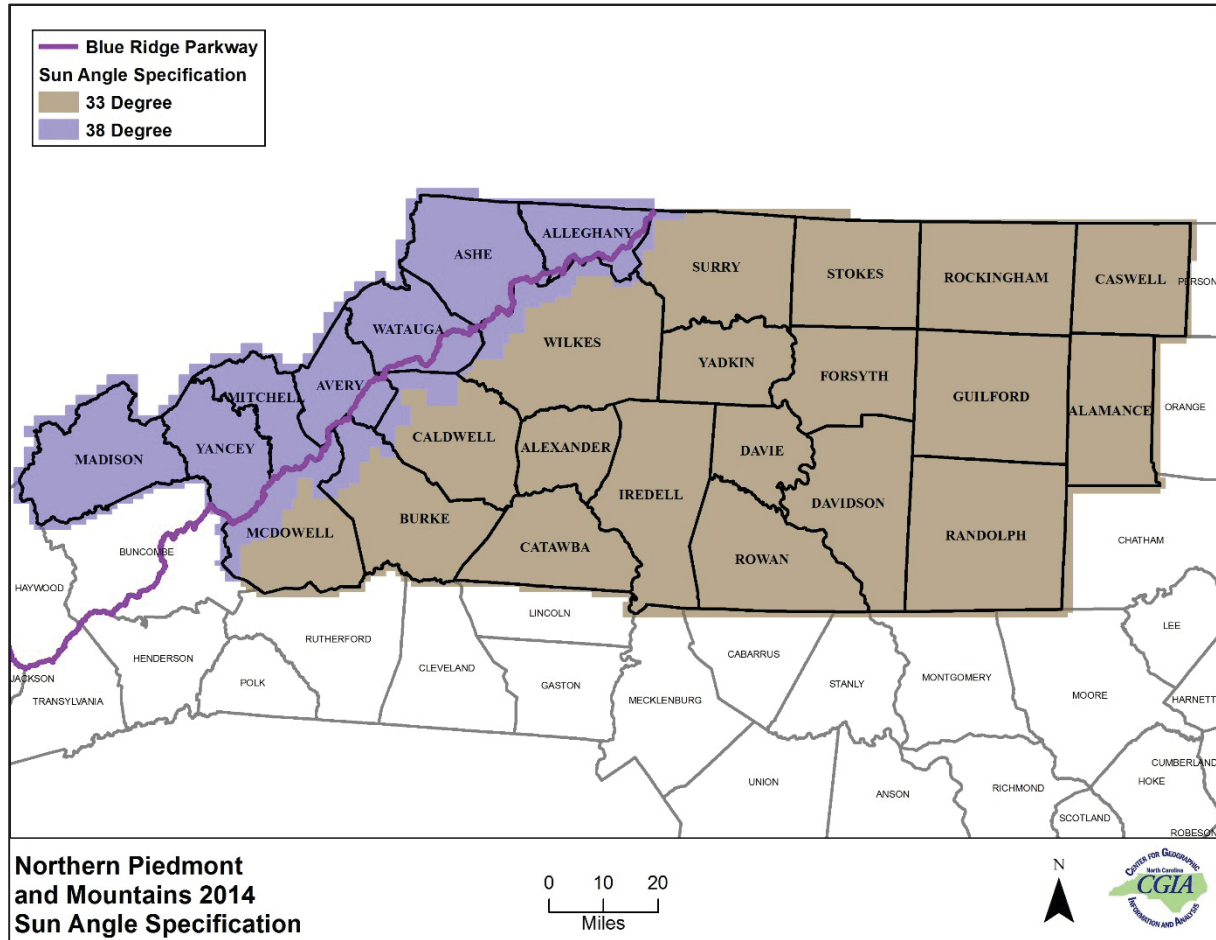


Figure 5: Sun Angle Division Line

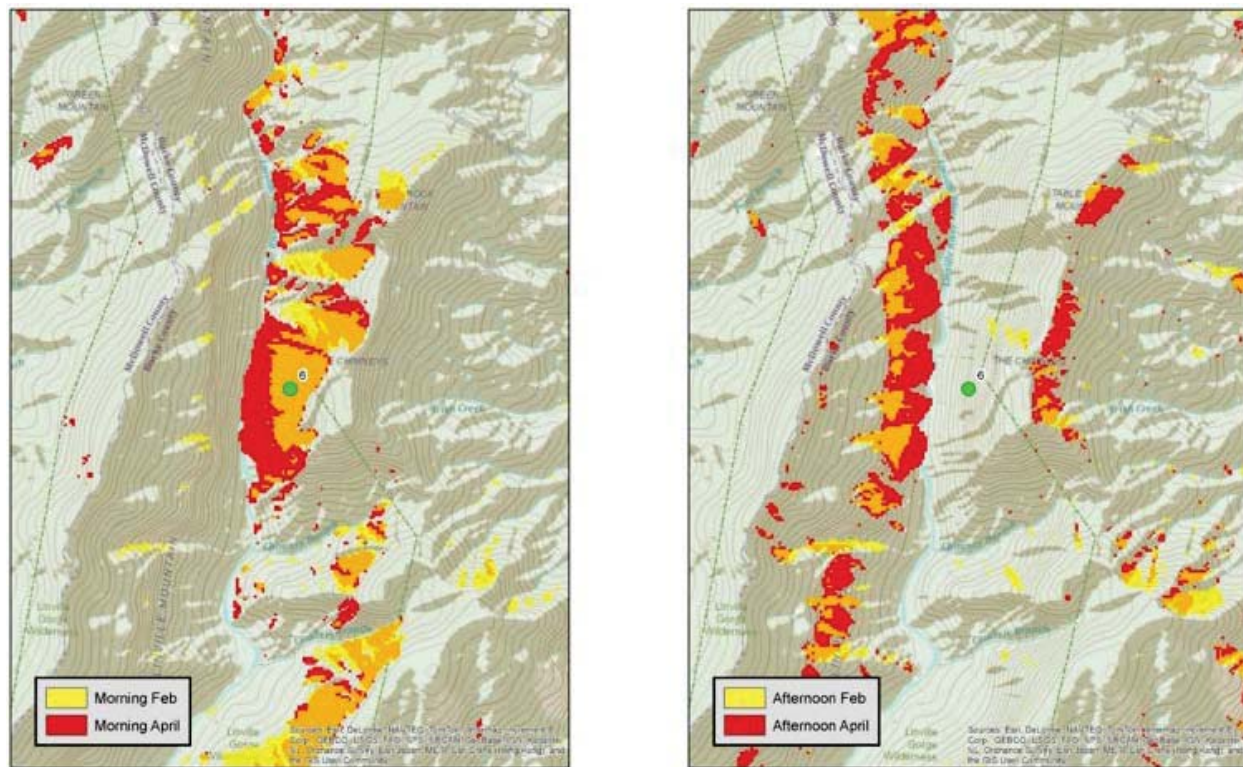


Figure 6: February and April Morning and Afternoon Sun Exposure

Nadir Approach

In 2010, in a few of the state’s most urbanized city centers there were a few instances of building distortion or lean. A recommendation was that for highly urbanized areas (i.e., Charlotte, Raleigh) it could be beneficial to have additional or more densely packed flight lines over these areas to minimize off-nadir lean. In 2014, two urban locations were identified (Greensboro and Winston-Salem) that served to drive customizations to flight plans to acquire nadir imagery in an attempt to reduce lean.

Future Recommendations:

Radiometric Consistency

A portion of the sample exploitation images delivered by the contractors to measure radiometric consistency should be in the overlap areas between the study areas. These overlapping samples should cover multiple tiles to give a regional perspective on radiometric consistency between contractors. This would facilitate an easy comparison process where differences between the contractors could easily be identified early in the project and rectified prior to final orthoimagery production.

Acquisition Reporting

In 2013, the project team implemented measures to insure compliance to real-time acquisition that are otherwise irreversible due to closed flight windows. Technically, contractors are now, and in

subsequent phases, required to deliver a post processed GNSS-IMU exterior orientation excel file for all acquired images for each and every sortie not to exceed five days after the flight date of each sortie. The state conducts a preliminary assessment of acquisition geometry based on this information and shares any concerns with the contractor. In future projects, the use of the GNSS-IMU exterior orientation excel files could be expanded upon by mapping the coordinates of each acquired image through the interactive mapping content detailed in section 4.3. By visualizing the acquired images on the project website, the project team and the end-users could see the real-time status of imagery acquisition.

Block 3: Production (Aug 2014 – Feb 2015)

The purpose of this task is to complete a full circle quality review on the deliverable Tagged Image File Format (TIFF) product (including review, issues submittal, resolution, resolution submittal review, and signoff), to develop the secondary Multi-Resolution Seamless Image Database (MrSID) product after satisfactory signoff and delivery of the TIFF product, to implement DIT hosting services and procurement and initiate data loading onto NC OneMap, to perform packaging and initiate scheduling to facilitate delivery to PSAPs.

Specific activities under this task include:

1. Finalize and secure DIT hosting services and perform initial image data loading onto DIT servers.
2. Conduct Level 1 quality review by imagery processing contractors to assure that the imagery meets state specifications and is free of systematic error or systematic visual quality issues and to verify the quality and completeness of the product.
3. Conduct Level 2-4 quality review for 26 counties through the VOICE application, identify valid issues, and submit and receive revised imagery from imagery processing contractors.
4. Develop a MrSID format 20:1 compression file for each tile in the county and a 50:1 compression format that represents an entire county mosaic. CGIA will request feedback from PSAP and local government end-users to determine a desired compression format.
5. Package imagery products on portable disk drives to include delivery of final imagery in GeoTIFF format, MrSID compressed format, metadata, and other applicable documentation. This also includes the logistics to maintain master copies of the GeoTIFF tiles, MrSID tiles and mosaics, finalize metadata files, assemble neighbor imagery, and collect other applicable data relevant to the primary county.
6. Product Delivery: This task includes the distribution of data to each PSAP.

Future Recommendations:

In 2014, there were several instances that required a customization of the primary MrSID county-wide mosaic for use by a PSAP jurisdiction that varies from the normal county deliverable. Therefore, it is recommended that the coverage of each county-wide mosaic be revised to match PSAP jurisdictional boundaries, to extend a greater distance outside each county boundary, or to extend to match some other criteria that will ensure end-user base mapping requirements are being met. It may also be necessary to include prior phase imagery in the county mosaic for those counties on the periphery of the project area to provide enough coverage to meet PSAP jurisdictions that reach across phase boundaries. This recommendation serves to insure that all PSAPs are provided the most complete resources available as a single point of reference for meeting emergency response as efficient as possible.

Block 4: Implementation (Feb 2015 – May 2015)

The purpose of this task is to implement release of data on NC OneMap and to evaluate each county's quality review (60-day evaluation period), and submit any final issues to orthoimagery acquisition contractors for resolution.

1. NC OneMap Implementation: CGIA will load the imagery into the NC OneMap database for public access as imagery services and as downloadable compressed imagery. The storage and maintenance will be continuous through the four cycles of quarter-state imagery acquisition.
2. 60-Day Evaluation: Each PSAP and county GIS office will review imagery quality during a period of 60 days. CGIA will evaluate county responses, submit issues to the processing contractor(s), and deliver resolutions as final.

Future Recommendations:

CGIA and the NC 911 Board will monitor the effectiveness and response during the 60-day period from the 2015 project as well as future phases to determine if the period is necessary as part of the Statewide Orthoimagery Program.

Block 5: Project Closeout (Jun 2015)

The purpose of this task is to perform project management activities relevant to project closeout and procurement. This includes evaluation and acceptance of all deliverables including the following:

1. Lessons Learned Report
 2. Outstanding Data Revisions
 3. Final Project Report
- 7. Visual Quality Review (VOICE)**

VOICE (Virtual Online Inspection, Checking and Editing) is a GIS web-based tool that hosts imagery stored in the cloud. VOICE contains a suite of tools that facilitate QC of all imagery developed for the project. VOICE was developed as a response to 2010 recommendations to involve PSAP clients early in

the quality review process and perform a more efficient means of quality review. VOICE satisfies the following objectives:

1. Satisfies the NC 911 Board's requirement to provide end users the ability to review the product prior to delivery.
2. Provides secure access by end-user points of contract to review imagery as it is completed by contractors.
3. Stores imagery hosted in the cloud thus eliminating the need to deliver external drives that increase costs and scheduling.
4. Provides an effective solution for reviewing imagery seamlessly.

The premise of VOICE is to provide a central means for QC reviewers to evaluate and submit quality issues. The primary means to locate and evaluate imagery is through the use of "pick tiles". Pick tiles are selected by NCDOT and CGIA as a subset of the full set of tiles for a county. A representative sample of 30% NCDOT, 5% CGIA, and a 25% County quality review of the study area is the desired goal. In 2014, 8,924 tiles were reviewed that represents 65% of the total study area. A quantitative approach is used not only based on the importance of features, such as roads, urban areas, bridges, etc., but also where issues might exist between contractor study areas.

Overall, the quality review process benefited from an increase in end-user participation and support, as demonstrated by five counties achieving over 90% total area reviewed and three of those counties achieving 100% quality review through VOICE. In comparison, the previous two project years combined had one county achieving 100% review. Table 3 demonstrates the final issues statistics derived from VOICE.

County	Tiles Per County	Percent Reviewed	Tiles That Passed Review	County	Tiles Per County	Percent Reviewed	Tiles That Passed Review
Alamance	558	61%	94%	Iredell	681	63%	87%
Alexander	289	100%	84%	Madison	630	60%	98%
Alleghany	301	63%	90%	McDowell	517	60%	88%
Ashe	545	93%	92%	Mitchell	290	60%	90%
Avery	318	61%	92%	Randolph	954	60%	88%
Burke	590	62%	90%	Rockingham	653	60%	94%
Caldwell	526	61%	97%	Rowan	621	40%	80%
Caswell	526	35%	94%	Stokes	526	40%	84%
Catawba	496	100%	95%	Surry	626	100%	83%
Davidson	626	60%	92%	Watauga	366	63%	93%
Davie	306	81%	84%	Wilkes	839	62%	87%
Forsyth	456	66%	79%	Yadkin	381	36%	87%
Guilford	754	98%	91%	Yancey	396	35%	99%
				Total	13,771	65%	90%

Table 3: Final VOICE Statistics

2013 Variations

The VOICE interface was streamlined in various aspects that enhanced the review workflow. Most notably, access to other sources of imagery, such as 2010 and 2013 imagery projects, was provided to aid in confirming perceived issues during the review process. The interfaces for the user to change basemaps and turn on or off seamlines were made easily accessible to facilitate a quick review process through implementation of new interfaces within VOICE.

Future Recommendations:

VOICE continued to be a successful methodology and means to accomplish the project objectives. In addition, VOICE served to demonstrate the review of imagery as a concept rather than a simple application. The NC 911 Board has endorsed this concept as well as VOICE and it has been implemented in Phase 4 of the Program. Overall, there are two broad recommendations for the use of VOICE in Phase 4. The first is to eliminate the use of generic account credentials by end-users. A workflow needs to be developed for initial account creation where every user will have a unique account to perform their review. The second is to implement a method for clear notation by the end-user when the review is complete for each tile. Other enhancements will include an easy way to share locations between users and save locations to reference at a later date, as well as numerous other enhancements. All of these recommendations are currently in place in Phase 4.

8. Product Distribution

Product Distribution initiates in the Implementation phase through Closeout and consists of the following core deliverables:

1. PSAP Delivery
2. Quality Review by PSAPs and Local GIS Operations
3. Sharing Products with State and Federal Partners
4. Loading Data into NC OneMap Database/IT Solution

8.1. PSAP Delivery

Each Primary PSAP received a portable disk drive with tiled orthoimagery in GeoTIFF and MrSID formats covering 100% of their applicable counties, mosaics of all counties bordering the primary counties, and other applicable information as defined in Section 1. The products were distributed in a set of seven regional meetings across the northern piedmont and mountain study area between January 21 and January 29, 2015. Each meeting included a cluster of 2-5 counties (Figures 7A-7G). The meetings were split into smaller regions than past projects to limit the distance traveled by county personnel attending the meeting in the event of adverse weather conditions. Meetings included an overview, product details, technical notes, delivery of one portable drive per county, and a positive issuance of client satisfaction through the notice of a 60-day evaluation window described in Section 5.4, Block 4 and Section 5.7.

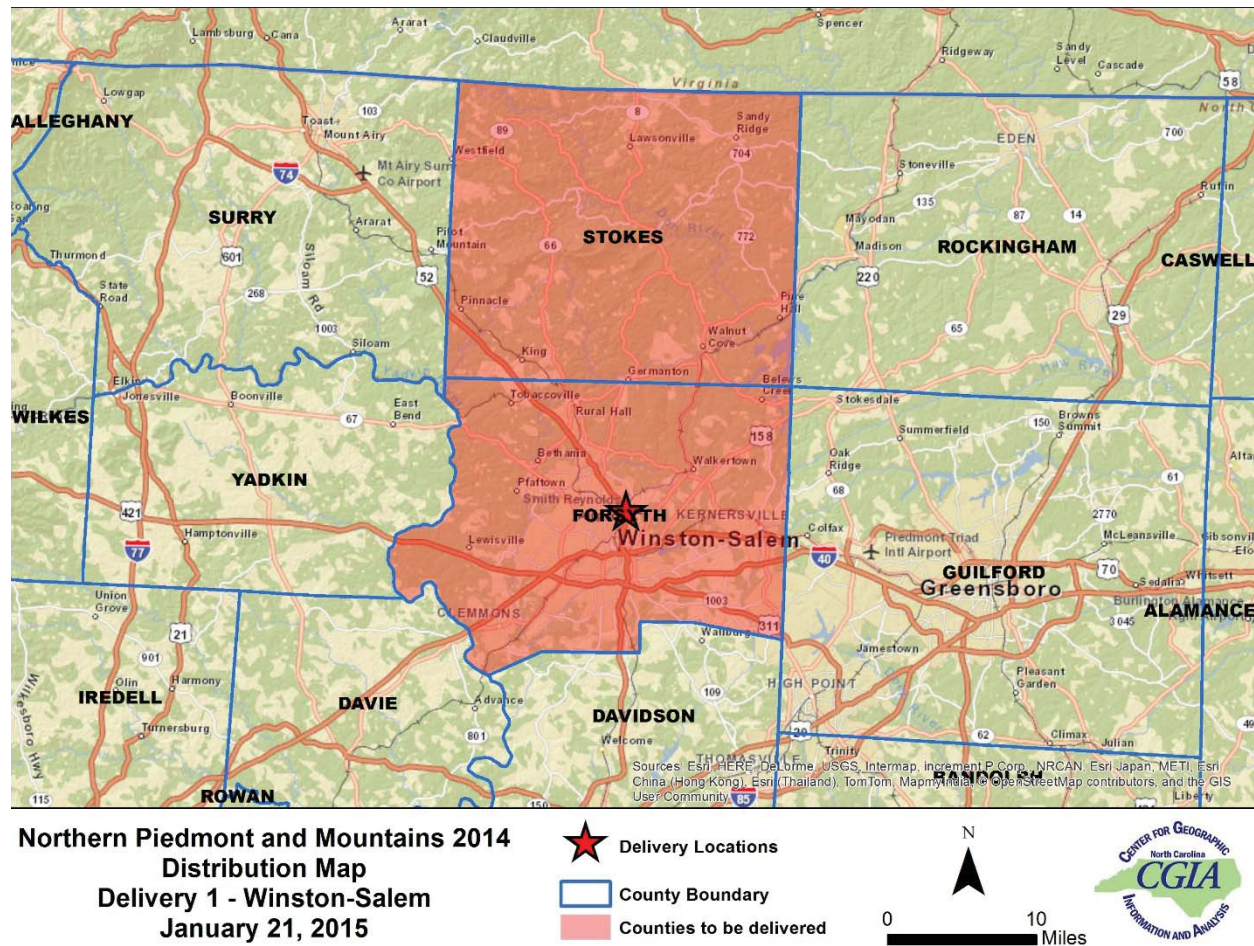


Figure 7A: Study Area 4 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

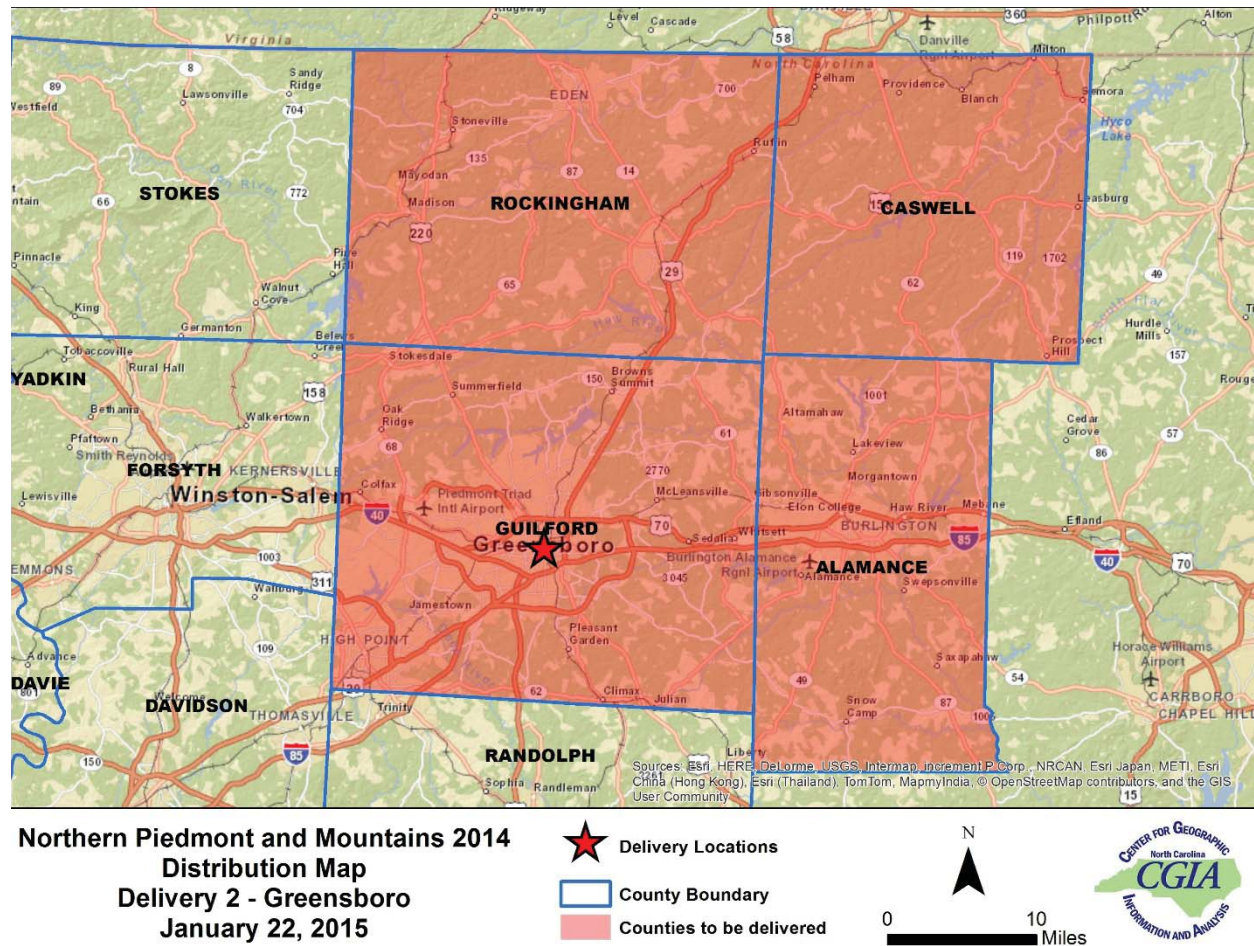


Figure 7B: Study Area 4 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

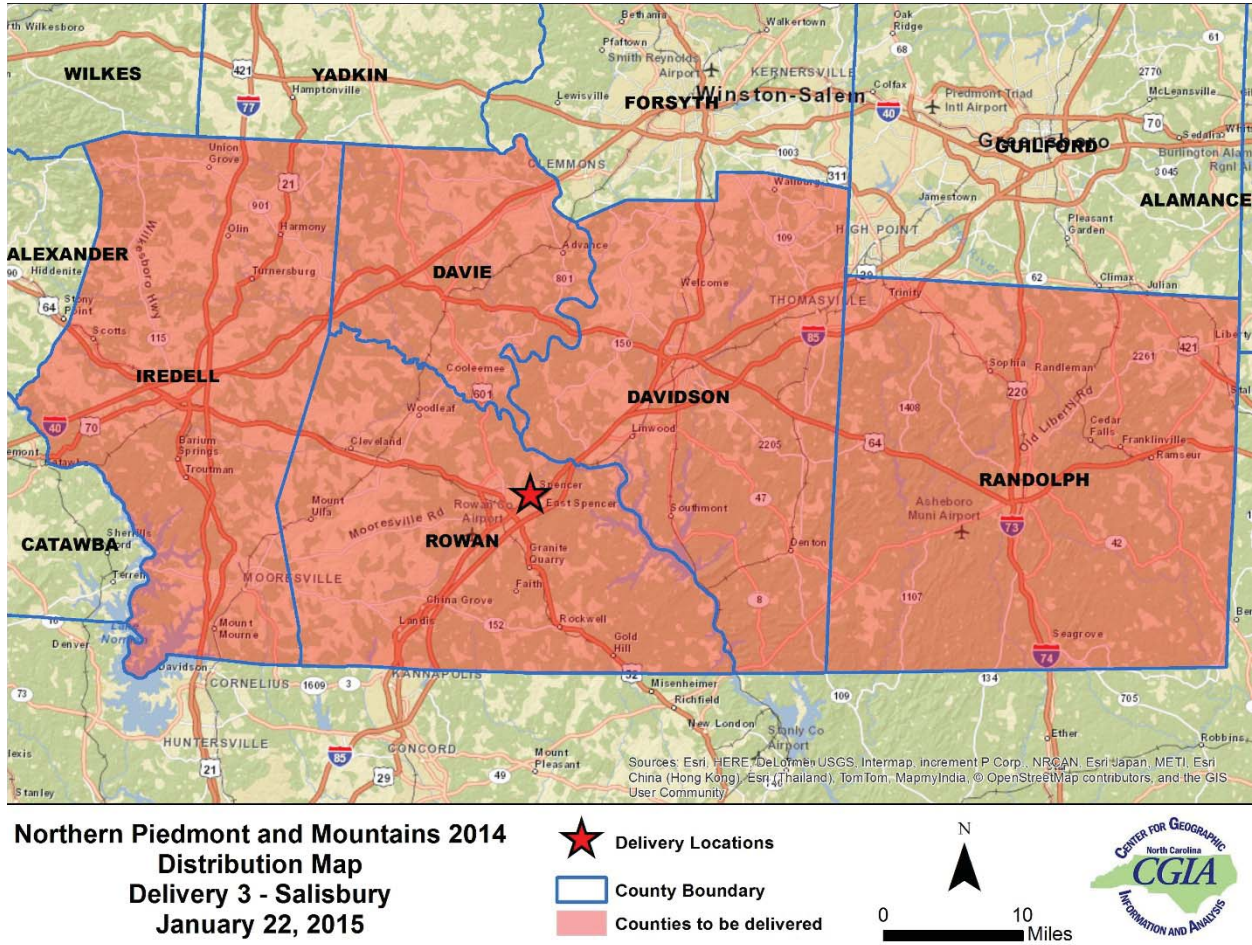
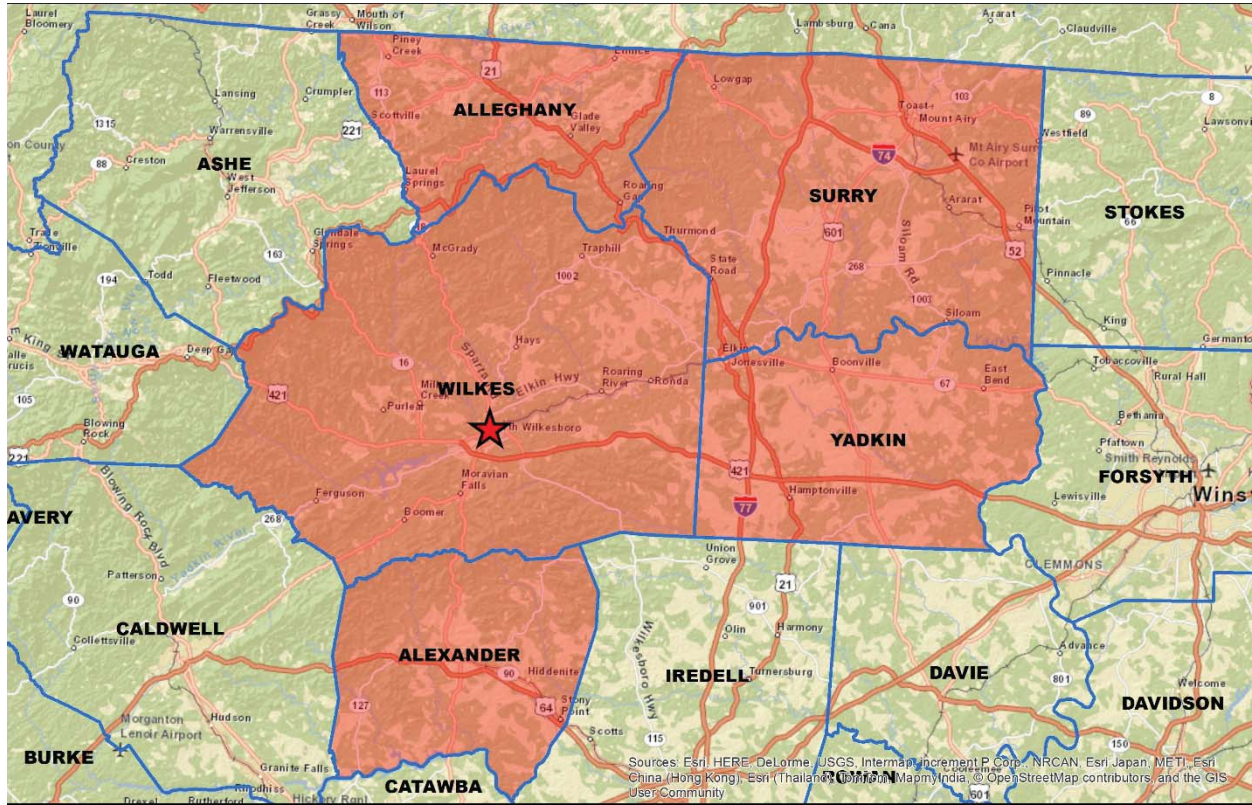


Figure 7C: Study Area 5 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015



**Northern Piedmont and Mountains 2014
Distribution Map
Delivery 4 - Wilkesboro
January 26, 2015**

★ Delivery Locations

□ County Boundary

■ Counties to be delivered

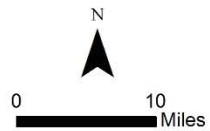


Figure 7D: Study Area 3 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

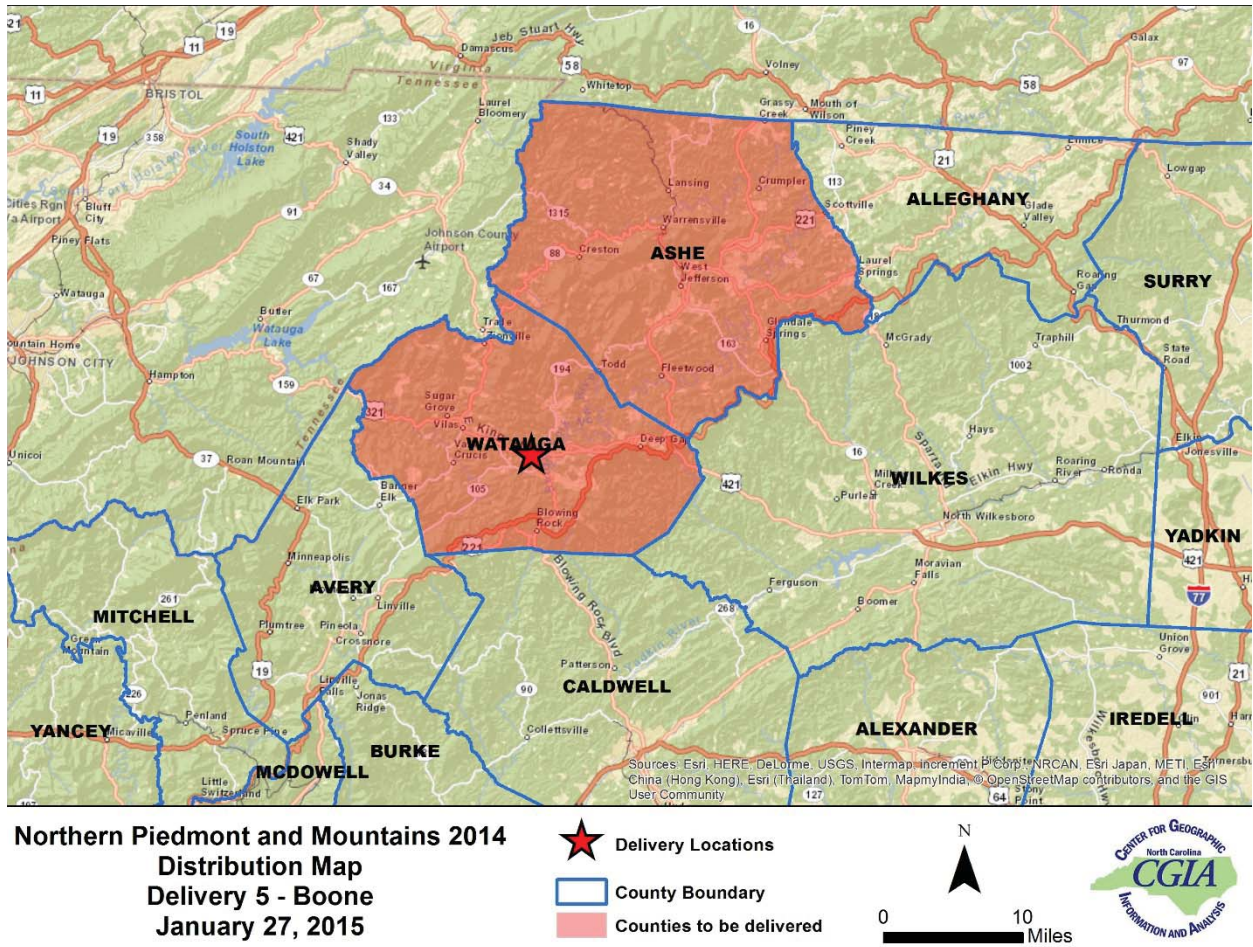


Figure 7E: Study Area 2 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

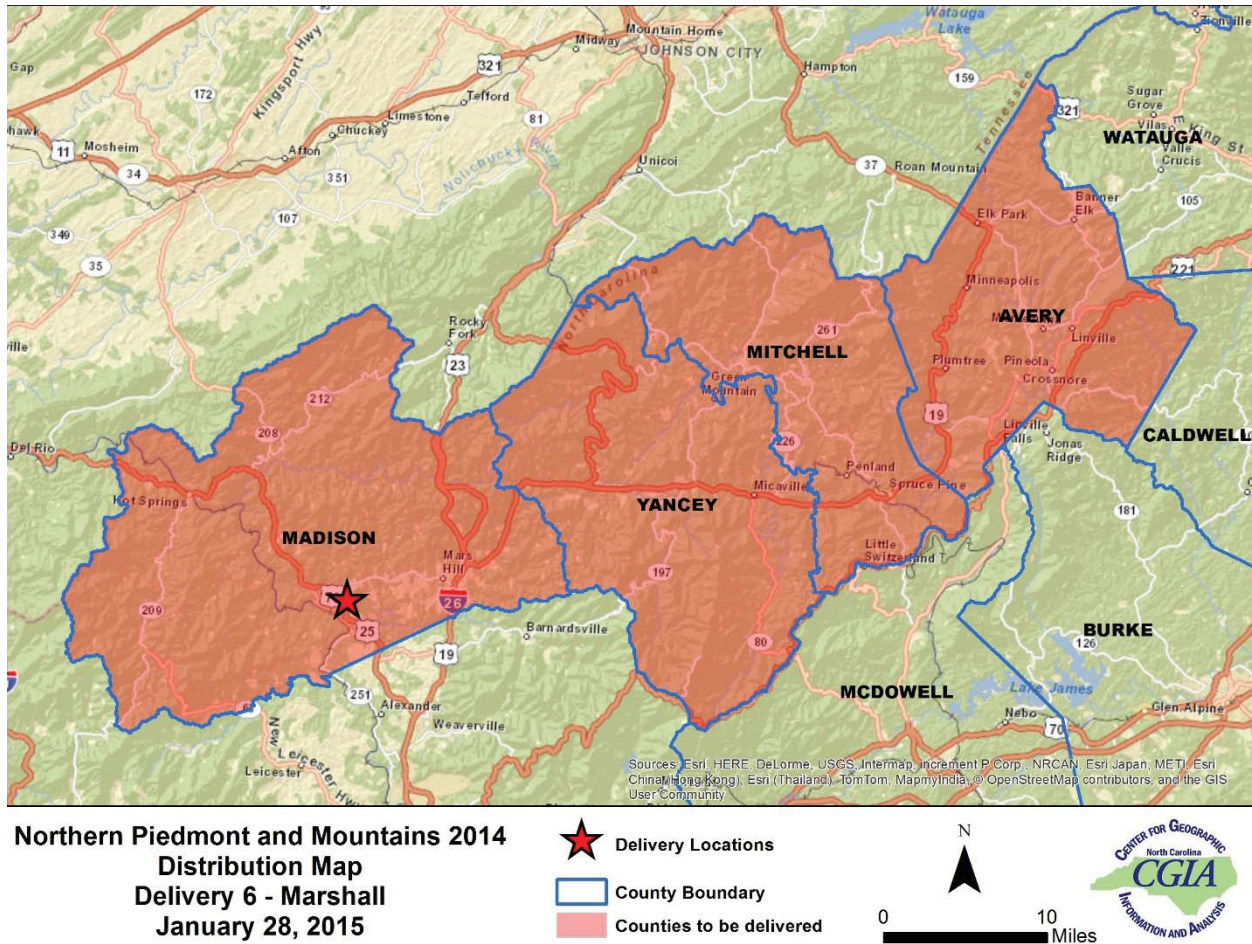


Figure 7F: Study Area 1 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

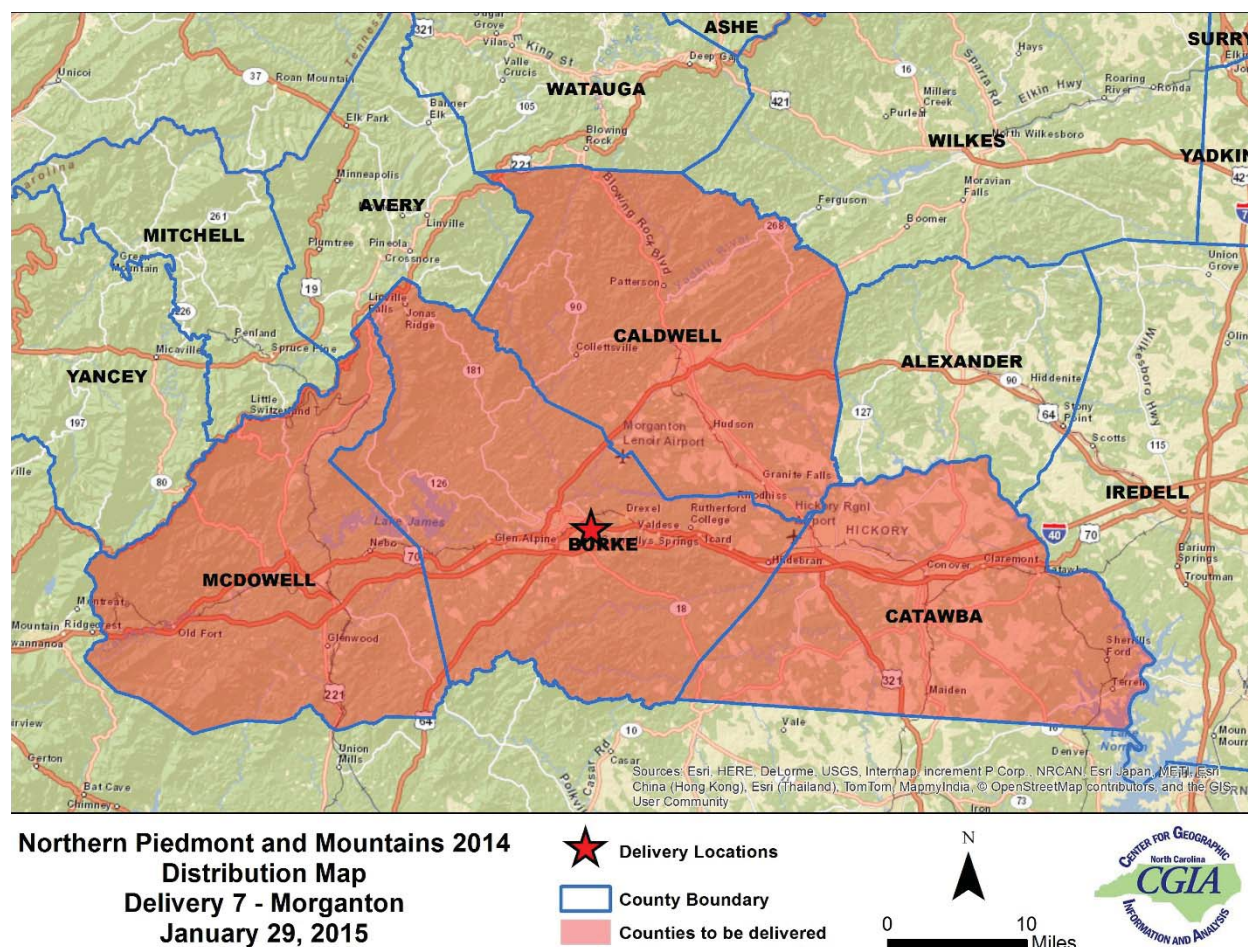


Figure 7G: Study Area 2 Cluster of Counties and Workshop Locations for Delivery of Orthoimagery to PSAPs, 2015

8.2. Quality Review by PSAPs and Local GIS Operations

Following delivery, the project entered into a 60-day period where the end-user evaluated the imagery deliverable to insure customer satisfaction, confirm completeness, validate data integrity, and to improve the process for subsequent phases. The 60-day period ended on April 3, 2015 with only one product issue reported. This issue was resolved and transmitted to the PSAP in a timely manner. This is a very positive statement regarding the quality of the product as well as a demonstration of the value of performing early QC review prior to delivery and engagement of the PSAPs and local government GIS offices in that review.

8.3. Sharing Products with State and Federal Partners

CGIA will continue to work with its state and federal partners including USGS, through its Earth Resources Observation and Science (EROS) Data Center, the NC Division of Forest Resources, NCDOT, the NC Division of Coastal Management, and others to insure and satisfy the NC 911 Board's vision to provide imagery to agencies and citizens of North Carolina.

CGIA recognized the NC Department of Cultural Resources (NCDRC) as a strategic partner to assist in archiving the imagery as the Program progresses. In 2014, CGIA contracted with the NCDRC to perform digital preservation of the statewide 2010 data in permanent State archives. This satisfies, not only documented records retention, but also serves to maintain a superseded backup of the 2010 project. Studies concluded that NCDRC, through economies of scale, can actually archive the entire state at a slightly more one-time cost than performing single archives annually.

8.4. Loading Data into NC OneMap Database/IT Solution

Imagery and related geospatial data are hosted and served by the DIT enhanced information technology solution for NC OneMap. The files loaded to the server are TIFF with JPEG compression for the best combination of performance, file size, and versatility. The native format (GeoTIFF) tiles for Phase 3 totaled almost 6 TB of disk storage space. These files are not loaded on the server, but are retained by CGIA on portable disk drives. In order to satisfy the goal of the NC 911 Board to provide access to imagery to all citizens of North Carolina, the storage of data on DIT servers is critical. DIT maintains two servers located at the Eastern and Western Data Centers. The NC 911 Board has recognized storage and data retention as a fundamental cost requirement and funds the storage and backup through the portions of the schedule when data is live. At the closeout of the contract, those costs are retained by CGIA until the next phase at which time the data transitions from static to dynamic.

9. NC OneMap

The NC OneMap Geospatial Portal located at:

(<http://data.nconemap.gov/geoportal/catalog/main/home.page>) satisfies the vision of, and provides the technical means for, organizing and providing access to fast statewide, high-resolution imagery for all citizens of North Carolina. The NC OneMap information technology enhancements were focused on that objective, with priority on free, fast access to imagery services and downloadable files.

Like 2010, in 2012 the NC OneMap team contracted with Esri to develop customizations to the Geospatial Portal to serve several broad needs to upgrade tools to automate discovery and access to information. Specifically, the NC OneMap Geospatial Portal customizations included and/or accomplished the following:

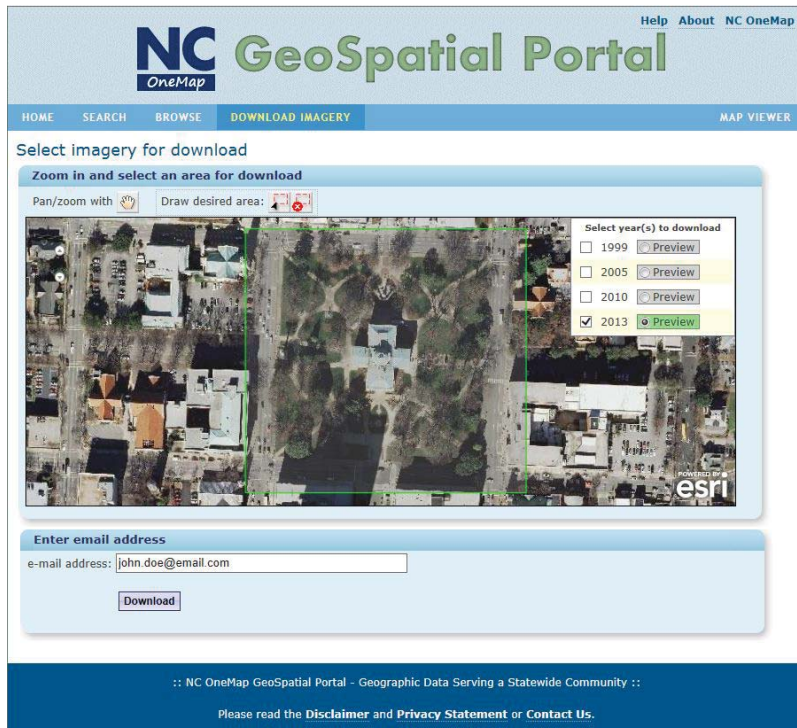


Figure 8: NC OneMap Download Imagery Interface

imagery with 2014 and with each successive phase of the Statewide Orthoimagery Program. In 2012, NC OneMap also developed new technology that allows the end-user several options for how they view and access imagery. In the past, image services were available as standalone resources. In other words, the end-user was required to access only one year at a time. In 2013, the end-user still had options for selecting any given year, but now has additional options to load a single time-enabled image service and choose from all inventoried years during the range of 1995-2013. Figure 9 demonstrates the time-enabled technology available for viewing different years. In addition, the end-user may also load image services that will display the most recent source of imagery. For example, as the user moves into the Phase 4 2015 study area, the imagery will transition to 2010. Ultimately the entire state will be updated. For the technical end-user, these choices or image services can be found at services.nconemap.gov.

1. preview and download imagery from multiple calendar years (Figure 8)
2. doubled the download area of interest from 20 square miles to 40 square miles
3. get instant map and image service status
4. browse collections from A to Z
5. perform type ahead searching
6. view the five most recent transactions
7. updated the instructional videos

In 2014, there were no planned customizations for the Geospatial Portal. However, maintaining the vision of the NC 911 Board, NC OneMap continues to update the inventory of high resolution

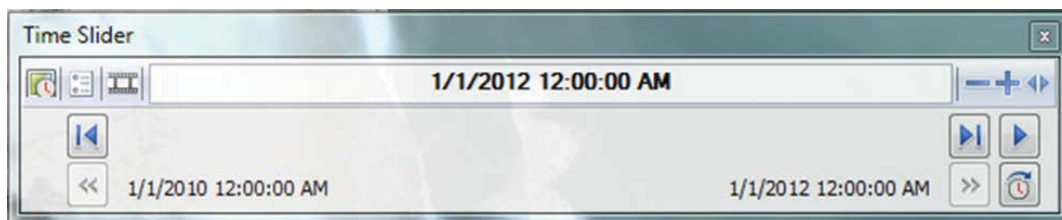


Figure 9: Time Enabled Imagery Toolbar

10. Summary

The Northern Piedmont and Mountains Orthoimagery 2014 project continues to establish a firm foundation for the four-phase update of the 2010 statewide orthoimagery product. With the completion of this phase, over three-fourths of the state has now been updated. The project was led by a team of state agencies and supported by private sector contractors that produced orthoimagery to the statewide standard. The standard was approved by the Secretary of State, adopted by the Geographic Information Coordinating Council and endorsed by the NC 911 Board. The standard was recently updated in December 2014.

The project team delivered 13,771 tiles of orthoimagery covering 12,349 square miles in the winter of 2015. This area included 34 PSAPs and encompassed 26 counties in the Northern Piedmont and Mountains. The project team, PSAPs, and local governments reviewed 8,924 tiles representing 65% of the study area. A total of 90% of the tiles passed the quality review process following review by the contractor, CGIA, NCDOT, and the PSAP and county GIS reviewers. The data was loaded into the NC OneMap data resource for widespread accessibility exactly on the scheduled date of February 1, one week after final delivery to the PSAP client.

The project team performed an internal assessment of the project, yielding lessons learned and recommendations for improvement in the areas of project planning/management, image acquisition and processing, quality control, and NC OneMap implementation.

The Northern Piedmont and Mountains Orthoimagery 2014 project was completed on time and under budget with a product that meets the needs of the PSAPs for current, consistent, accurate, and complete orthoimagery. The product has added benefits for many stakeholders beyond the 911 community.

11. Acknowledgements

This project achieved success as a result of the effective collaboration and teamwork among public agencies and private sector service providers. The project team would like to recognize the following participants for helping keep the project on task, on time, and within budget to the benefit of all.

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NC Department of Information Technology:

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- Administrative Support: Susan Chan

Statewide Mapping Advisory Committee

Working Group for Orthophotography Planning: Gary Thompson, Keith Johnston, Dan Madding, Sean McGuire, Tom Morgan, Allan Sandoval, Daniel Madding, Hope Morgan, John Bridgers, Silvia Terziotti, Erik Hund, Chad Ferguson, Doug Newcomb, Eric Warren, Stephen Dew, Kevin Jamison, Chris Koltyk, David Jones, and Jeff Brown

USGS: Gary Merrill, Sylvia Terziotti, and Randy MacCash

Private Service Providers: Imagery Acquisition and Production

- Atlas Geographic Data
- Photo Science
- Sanborn Map Company
- Spatial Data Consultants
- Surdex Corporation

Private Service Providers: Horizontal Accuracy QC

- Concord Engineering and Surveying, Inc.
- Vaughn and Melton Consulting Engineers, Inc.
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12. Appendix: Definitions

Public Safety Answering Point (PSAP)

A public safety answering point is a call center responsible for answering calls to an emergency telephone number for police, firefighting, and ambulance services.

Aerial Photography

Aerial photography is any photography taken from the air. Typically, aerial photographs are taken with specialized, high-quality, large format cameras that point down vertically from the aircraft to the ground below. Orthophotography is derived from overlapping vertical aerial photography. Digital cameras are becoming more prevalent than film cameras for projects in North Carolina.

Aerial Triangulation

The primary purpose of aerial triangulation (AT) is to compensate for errors in ground positioning of the imagery. GNSS positional data is processed against the stationery GNSS base stations established throughout the project area. Also, data from the sensor (camera) is processed to provide the continuous orientation and position of the sensor throughout the flight of the aircraft. The orientation and position is used with the raw imagery data to produce a georeferenced image. The triangulation process involves multiple viewing angles and point matching to produce a network of image points. Ground control points are also integrated in the processing to produce imagery that fits the terrain within accuracy specifications.

Continuously Operating Reference Station (CORS)

The National Geodetic Survey (NGS), an office of the National Oceanic and Atmospheric Administration (NOAA) National Ocean Service, coordinates a network of continuously operating reference stations (CORS). Each CORS site provides Global Navigation Satellite System (GNSS - GNSS and GLONASS) carrier phase and code range measurements in support of three-dimensional positioning activities throughout the United States and its territories. Surveyors, GIS/LIS professionals, engineers, scientists, and others can apply CORS data to position points at which GNSS data have been collected. The CORS system enables positioning accuracies that approach a few centimeters relative to the National Spatial Reference System, both horizontally and vertically.

Datum

A set of constants specifying the coordinate system used for geodetic control, i.e., for calculating the coordinates of points on the Earth. This project uses the standard datum for orthoimagery in North Carolina: North America Datum (NAD) 1983 with the readjustment from 2011.

Digital Orthoimagery (DOI)

Digital Orthoimagery is a remotely-sensed digital picture, stored in a raster data format. It is a geo-referenced image prepared from a vertical photograph or other remotely-sensed data in which displacement of objects due to sensor orientation and terrain relief have been removed.

Digital Elevation Model (DEM)

Digital Elevation Model is a sample of ground elevations points used to model a land surface. It is a required element in the processing of digital orthoimagery based on the accurate identification of control points in the images whose ground positions are accurately known. North Carolina has statewide elevation datasets derived from Light Detection and Ranging (LiDAR) technology.

Geographic Registration

Registration is the spatial referencing of an orthoimage to an area on the earth's surface. An image must be geographically registered in order to use it in a GIS as an overlay.

Global Navigation Satellite System (GNSS)

A system of satellites, computers, and receivers that is able to determine the latitude and longitude of a receiver on Earth by calculating the time difference for signals from different satellites to reach the receiver.

Ground Control Point

Points of accurately known geographic location used to register imagery and other coverage data to ground position. In preparation for flights, white panels are placed in visible locations (ground control points) and their positions are surveyed and recorded. For quality control, aerial imagery contractors compare the geospatial location of the ground control points in the imagery to the recorded locations. Third party horizontal quality control may use the ground control points and other recorded reference points to check the accuracy of visible locations in the imagery.

Ground Sample Distance (GSD)

Ground sample distance is the area on the ground represented by each pixel in a digital orthoimage. The smaller the pixel, the more detail is visible in the image. North Carolina requires pixel of one-foot or smaller, and 6-inch and even 3-inch pixels are prevalent over urban areas. This project uses 6-inch GSD.

High Accuracy Reference Network (HARN)

The HARN is a statewide network of survey monuments measured to an extremely high level of accuracy with respect to, and as part of, a similar nationwide network of high-accuracy points. The positions of these monuments are established using GNSS and other sophisticated space-based measuring technologies. HARN is not expressed as part of the datum for this project (NAD 1983(2011)).

Metadata

Metadata is information in standard format about the content, quality, and condition of a dataset. For imagery, metadata includes when and how images were captured from aircraft, processing, extent, contact information, and other items that inform users of the imagery products.

Multi-spectral

Digital orthoimagery collected in multiple bands, with each band corresponding to a portion of the spectrum. Various band combinations may be combined to assist in the identification of specific ground features, via automated image processing techniques.

Natural Color

Natural color is derived from three (red, green, blue) of the four digital bands captured by digital cameras. Commonly used for inventory analysis, cartographic verification, and data verification. Especially useful for showing man-made features, which typically occur in a wider range of colors than natural features.

Orthoimagery

An orthoimage is remotely sensed image data in which displacement of features in the image caused by terrain relief and sensor orientation have been mathematically removed. Orthoimagery combines the image characteristics of a photograph with the geometric qualities of a map. An orthoimage or orthophoto is an aerial photograph (or digital image) geometrically corrected ("orthorectified") such that the scale is uniform: the photo has the same lack of distortion as a map. Unlike an uncorrected aerial photograph, an orthoimage can be used to measure true distances, because it is an accurate representation of the earth's surface, having been adjusted for topographic relief, lens distortion, and camera tilt. Orthoimagery is commonly used in the creation of a Geographic Information System (GIS). Software can display the orthoimage and enable an operator to digitize or place line work, text annotations or geographic symbols (such as hospitals, schools, and fire stations).

Panchromatic

A film type which renders imagery as gray scale. It generally provides the best resolution and least amount of storage space.

Pixel

A pixel is a two-dimensional picture element that is the smallest non-divisible element of a digital image. For this project, a pixel represents 6 inches on the ground, and each 5,000 by 5,000-foot tile has 10 million pixels.

Positional Accuracy

This refers to the variation that can exist between coordinates for a feature on the image to the actual location of that feature on the earth's surface.

Remote Sensing

The process of collecting data about objects or landscape features without coming into direct physical contact with them.

Scale

Scale is the ratio of distances on a map to those same distances on the earth's surface. Ground resolution relates to mapping scale. For example, a map scale of 1 inch on the map = 200 feet on the ground is equivalent to an image ground resolution of 6 inches (pixel size). A scale of 1-to-400 is equivalent to 1-foot resolution. A scale of 1-to-100 is equivalent to 3-inch ground resolution.

State Plane

A coordinate system (grid) of plane rectangular (x, y) coordinates for pre-determined zones in each of the 50 states. Local governments in North Carolina use state plane with map units in feet.

Tile

Images are subdivided into smaller units to reduce the physical file size and the amount of computer processing required. Tiles usually cover a regular rectangular grid. The tile size for 6-inch resolution images in North Carolina is 5,000 feet by 5,000 feet.

Sources: NC Center for Geographic Information and Analysis; adapted from New York State Geographic Information System Clearinghouse; the Federal Geographic Data Committee glossary; USGS metadata records, and various project documents.

March 31, 2016

Richard Taylor
Executive Director
North Carolina 911 Board

This status report summarizes project status for the Southern Piedmont and Mountains Orthoimagery 2015 Project funded by the NC 911 Board. The report summarizes project status for February 1-29, 2016.

Accomplishments

The accomplishments by the project team during the period include the following items organized by team member:

CGIA

- CGIA issued a change order amendment to refly and redeliver Montgomery, Moore, Richmond, and Scotland counties including Camp Mackall and Ft. Bragg for the contractor Quantum Spatial:
 1. February 15: Quantum confirmed change of project management and project administrator.
 2. Initiated acquisition on February 19.
 3. February 24: Quantum acknowledged the sensor used for the February 19 mission was not approved and would undergo maintenance. On February 26, CGIA documented that the February 19 mission was not acceptable.
 4. February 26: Quantum issued updated project management fact sheet to Ft. Bragg.
 5. February 28-29: Quantum reinitiated acquisition.
- Continued logistics meetings with contacts from South Carolina and Georgia to evaluate data exchange to facilitate PSAP access to imagery across state borders. Data was obtained from Georgia. Will continue to pursue the arrangement and expect to deliver final updated imagery in the spring.
- Followed up and redelivered data to Macon County per their request to deliver an alternative format to support their Interact CAD system
- Submitted Ft. Bragg disclosure agreements to county managers in Montgomery, Moore, Richmond, and Scotland. Received approval from Richmond to provide data to the PSAP. The remaining counties are pending.
- Continued DIT server hosting
- Researched a plan to terminate server hosting on WDC and develop a more cost effective method for backup and retention
- Compiled distribution meeting statistics
- Developed final lines of communication content on project website
- Other tasks include regular team meetings and outreach to federal, state and local partners including the NC Geographic Information Coordinating Council

NC Department of Transportation (NCDOT)

- Attended team strategy meetings
- Participated in project planning and review of Quantum Spatial reflights reports and submittals

NC Department of Public Safety: NC Geodetic Survey (NCGS)

- Attended team strategy meetings
- Performed CORS maintenance and upgrade
- Completed horizontal quality control points production

Acquisition Vendors

This section summarizes the accomplishments of the five prime acquisition vendors selected through the Qualifications Based Selection (QBS) process. The selected vendors are Sanborn Map Company, Atlas Geographic Data, Surdex Corporation, Spatial Data Consultants, and Quantum Spatial. The fully executed contracts were awarded on December 17, 2014. Each of the contracts consists of seven primary tasks as follows:

Task 1 – Flight Planning
Task 2 – Imagery Acquisition
Task 3 - Aerotriangulation and Ortho Generation
Task 4 - Product Delivery and Data Acceptance
Task 5 – Quality Review and Resolutions Reporting
Task 6 – Image Service Hosting (VOICE Application QC Interface)
Task 7 – Closeout

- Atlas Geographic Data and Sanborn Map Company redelivered horizontal adjustments per NCGS reports
- Initiated project closeout activities for data archiving and project management

VOICE Application Contractor:

This section summarizes the accomplishments of Quantum Spatial, the sole-source contractor developing the VOICE QC Application. The fully executed contract was awarded on April 20, 2015. That agreement consists of seven primary tasks as follows:

Task 1: Requirement Workshop
Task 2: System Design Document
Task 3: Development
Task 4: Beta Release Testing
Task 5: Production Release
Task 6: Hosting and Project Close

- Task 6: Hosting and Project Close
 - Service provider subcontractor completed image services hosting
 - Primary contractor will continue to support the application for Quantum's reflights

Schedule

The following represents the project's core deliverables milestones for plan and actual status:

Task	Item	Planned Start	Planned Finish	Actual Finish/Percent Complete
1	Project Initiation	7/1/2014	2/1/2015	
	Issue RFQ for Orthoimagery QBS	8/18/2014	8/18/2014	8/18/2014
	Closing date for RFQ responses	9/9/2014	9/9/2014	9/9/2014
	Contract NCGS	7/1/2014	9/1/2014	8/11/2014
	Contract NCDOT	7/1/2014	9/1/2014	7/21/2014
	Host workshop for selected applicants	10/29/2014	10/29/2014	10/29/2014
	Technical and cost proposals due	11/12/2014	11/12/2014	11/12/2014
	Negotiate with selected applicants	11/24/2014	11/24/2014	11/24/2014
	Proposed Kickoff Meeting	12/18/2014	12/18/2014	12/18/2014
	Contract QC Service Provider	2/1/2014	2/1/2014	4/20/2015
2	Planning and Design	10/15/2014	4/30/2015	
	CORS Upgrades	10/15/2014	3/1/2015	3/1/2015
	Validation Range	10/15/2014	1/15/2015	12/3/2014
	RTN Maintenance	10/15/2014	Ongoing	Ongoing
	Control Surveys and Attachment C-1: Control Surveys Report	12/19/2014	4/30/2015	6/12/2015
3A	Acquisition	2/15/2015	5/1/2015	
	Acquire 24 Counties	2/15/2015	4/30/2015	4/15/2015
	Attachment D: Imagery Acquisition Compliance Report	2/1/2015	5/1/2015	6/1/2015
	Exploitation samples	5/1/2015	5/1/2015	4/30/2015
3B	Acquisition Post-Processing	2/15/2015	5/29/2015	
	Attachment E: GNSS-IMU Post Processing & Aerotriangulation Report	3/1/2015	5/29/2015	9/18/2015
	Ortho Generation Workshop	4/30/2015	4/30/2015	4/30/2015
4	Quality Review Production and Product Delivery	8/1/2015	12/30/2015	
	QC Production Cycle	8/1/2015	12/30/2015	12/30/2015
5	Implementation	1/31/2016	3/30/2016	
	Product Delivery	1/19/2016	1/28/2016	1/28/2016

	Implement the NC OneMap Geospatial Portal solution	2/1/2016	Ongoing	2/1/2016
	60 day End-User Evaluation	1/16/2016	3/30/2016	
6	Project Closeout	4/1/2016	6/30/2016	
	Final Data Packaging and Final Reports	4/1/2016	5/31/2016	
	Project Closeout	6/1/2016	6/30/2016	

Budget

The expenditures for the project are summarized below. Note this represents invoiced amounts for the reporting period of February 1-29, 2016 and total amounts for the project to date. The total budget for the project is \$3,719,332.

Item	This Reporting Period	Cumulative to Date	Percent Expended to Date
CGIA			
CGIA Labor	\$13,230.00	\$349,178.00	
ITS Hosting and Information Technology	\$6,964.35	\$21,426.29	
CGIA Travel	\$255.41	\$3,292.02	
CGIA Reimbursable Expenses	\$0.00	\$3,755.62	
CGIA Total	\$20,449.76	\$377,651.93	70.5%
Subcontractors			
NCDPS-NCGS	\$2,432.04	\$157,349.21	78.0%
NC DOT	\$9,154.74	\$131,462.77	82.2%
Sanborn	\$0.00	\$558,381.17	97.9%
Atlas Geographic Data	\$6,798.11	\$603,804.59	93.9%
Surdex	\$3,868.88	\$450,225.14	99.6%
Spatial Data Consultants	\$0.00	\$521,163.69	91.9%
Quantum Spatial	\$43.70	\$452,160.91	95.8%
ESRI	\$0.00	\$0.00	0.0%
VOICE	\$6,401.28	\$63,808.50	79.8%
Subcontractor Total	\$28,698.75	\$2,938,355.97	92.7%
Grand Total (for Project)	\$49,148.51	\$3,316,007.90	89.2%

Major Tasks Identified for March 2016

The emphasis of the project in March will be focused on the following major tasks:

CGIA

- Initiate reflight reporting for Quantum Spatial
- Receive data from South Carolina to initiate inclusion in to PSAP deliverables
- Process GA data for delivery to western counties
- Process special exception requests from Primary PSAP:
- Update project website communications
- Complete horizontal QC report
- Continue VOICE hosting to facilitate Quantum Spatial reflights
- Followup to County managers for Ft. Bragg disclosure approvals
- Other tasks include regular team meetings and ongoing outreach to federal, state and local partners

NCGS

- Attend weekly project meetings
- Deliver horizontal quality control reports

NCDOT

- Evaluate project deliverables for Quantum Spatial reflights

Private Subcontractors (Sanborn Map Company, Atlas Geographic Data, Surdex Corporation, Spatial Data Consultants, Quantum Spatial)

- Quantum Spatial to initiate reflight planning
- Task 7 – Closeout
 1. Monitor 60-day QC evaluation
 2. Perform project management closeout activities

Project Issues

There are no financial issues to prevent the team from completing the project on time and within budget. Production for the no-cost change order for Quantum Spatial will continue. Orthoimagery acquisition for the reflight area is targeted for completion in March. Final delivery of the affected area will occur in late-spring 2016.



PAT MCCRORY
Governor

KEITH WERNER
State Chief Information Officer

Please contact me by phone at (919) 754-6588 or email at tim.johnson@nc.gov if you have questions about this report or about contractual or administrative aspects of the project. Contact Darrin Smith of CGIA at (919) 754-6589 or email at darrin.smith@nc.gov regarding technical matters related to the project.

Sincerely,

A handwritten signature in black ink that reads 'Tim Johnson'.

Tim Johnson, GISP
Director
Center for Geographic Information and Analysis

April 11, 2016

Richard Taylor
Executive Director
North Carolina 911 Board

This report summarizes project status for the Coastal Orthoimagery 2016 Project funded by the NC 911 Board. The report summarizes project status for the period from February 1, 2016 through February 29, 2016.

Accomplishments

The accomplishments by the project team during the period include the following items organized by team member:

CGIA

- CGIA held weekly project management activities with Project Team meetings.
- Completed all parameters for the project SharePoint site for sharing technical and other documents among the project team and contractors.
- Initiated weather and flood data collection and processing to assess acquisition performance.
- Processed and formatted acquisition data for review through project website.
- Acquired a total of 88 percent of study area which is unprecedented in the Program to date. Remaining for March is western Duplin and eastern Brunswick. Evaluated substantial amount of sample imagery yielding reflights due to flooding. At least one flight window was missed in Columbus due to flooding. The majority of the reflights were tied to the Neuse River southwest and east of Grifton.
- Reviewed and approved four of four Attachment C flight plan reports submitted by private contractors.
- Received one of four Attachment C-1 Survey reports submitted by private contractors.
- Outreach included attending and/or presenting on the project at the following venues:
 - February 11: Geographic Information Coordinating Council: Quarterly Meeting
- Developed and finalized sample landcover color targets that will be the foundation for all approved color specifications for the project.
- Updated the project website and web mapping content for effective communication.
- Worked with David Dodd to update all PSAP contacts. Submitted second outreach communication with PSAP partners.
- Followed up communications with Virginia to obtain imagery data to support PSAP delivery along the state border.

NC Department of Transportation (NCDOT)

- Attended team strategy meetings.
- Reviewed and approved all Attachment C flight control plan reports.
- Developed landcover targets for submittal to contractors.

NC Department of Public Safety: NC Geodetic Survey (NCGS)

- Attended team strategy meetings.
- Reviewed and approved one Attachment C-1 survey reports
- Continued upgrade of validation range and performed CORS maintenance
- Performed maintenance on field survey and GPS equipment
- Initiated RFQ posting for horizontal assessment

Acquisition Vendors

This section summarizes the accomplishments of the four prime acquisition vendors selected through the Qualifications-Based Selection (QBS) process. The selected vendors are Sanborn Map Company, Atlas Geographic Data, Surdex Corporation, and Spatial Data Consultants. The fully executed contracts were awarded on December 16, 2015. Each of the contracts consists of seven primary tasks as follows:

Task 1 – Flight Planning

Task 2 – Imagery Acquisition

Task 3 - Aerotriangulation and Ortho Generation

Task 4 - Product Delivery and Data Acceptance

Task 5 – Quality Review and Resolutions Reporting

Task 6 – Image Service Hosting (VOICE Application QC Interface)

Task 7 – Closeout

Atlas Geographic Data

- Task 1 – Flight Planning
 - Approved for Attachment C Flight Plan Report
 - Completed control field work and initiated Attachment C-1 survey report
- Task 2 – Imagery Acquisition
 - Completed 100% of acquisition
 - Initiated landcover sample images processing
- Task 3 - Aerotriangulation and Ortho Generation
 - Initiated Aerotriangulation

Spatial Data Consultants

- Task 1 – Flight Planning
 - Approved for Attachment C Flight Plan Report
 - Completed control field work and initiated Attachment C-1 survey report
 - Approved for all Validation Range Expedited Camera Systems
- Task 2 – Imagery Acquisition
 - Completed 100% of acquisition
 - Initiated landcover sample images processing
- Task 3 - Aerotriangulation and Ortho Generation
 - Initiated Aerotriangulation

Sanborn Map Company

- Task 1 – Flight Planning
 - Approved for Attachment C Flight Plan Report

- Completed control field work with the exception of two points inaccessible by ferry to date.
 - Attachment C-1 survey report
 - Task 2 – Imagery Acquisition
 - Completed 100% of acquisition with the exception of flooding reflights
 - Initiated landcover sample images processing
 - Task 3 - Aerotriangulation and Ortho Generation
 - Initiated Aerotriangulation
- Surdex Corporation
 - Task 1 – Flight Planning
 - Approved for Attachment C Flight Plan Report
 - Completed control field work and submitted Attachment C-1 Survey Report
 - Approved for all Validation Range Expedited Camera Systems
 - Task 2 – Imagery Acquisition
 - Completed 88% of acquisition
 - Task 3 - Aerotriangulation and Ortho Generation
 - Initiated Aerotriangulation

VOICE Application Contractor:

This section summarizes the accomplishments of Quantum Spatial, the sole-source contractor developing the VOICE QC Application. The fully executed contract was awarded on December 15, 2015. That agreement consists of seven primary tasks as follows:

Task 1: Requirement Workshop
 Task 2: System Design Document
 Task 3: Development
 Task 4: Beta Release Testing
 Task 5: Production Release
 Task 6: Hosting and Project Close

- Task 1:
 - Conducted and completed kickoff meeting requirements
- Task 2: System Design Document
 - Initiated design requirements

Schedule

The following represents the project's core deliverables milestones for plan and actual status: Details of the plan will accumulate as acquisition contractors are engaged and more definitive technical milestones are developed.

Task	Item	Planned Start	Planned Finish	Actual Finish/Percent Complete
1	Project Initiation	7/1/2015	2/1/2016	
	Issue RFQ for Orthoimagery QBS	8/31/2015	8/31/2015	8/31/2015
	Closing date for RFQ responses	9/22/2015	9/22/2015	9/22/2015
	Contract NCGS	8/1/2015	8/1/2015	8/11/2015
	Contract NCDOT	8/1/2015	8/1/2015	7/21/2015
	Host workshop for selected applicants	11/2/2015	11/2/2015	11/2/2015
	Technical and cost proposals due	11/13/2015	11/13/2015	11/13/2015
	Negotiate with selected applicants	11/23/2015	11/23/2015	11/23/2015
	Conduct Kickoff Meeting	12/17/2015	12/17/2015	12/17/2015
	Contract QC Service Provider	2/1/2016	2/1/2015	12/15/2015
2	Planning and Design	10/15/2015	4/30/2016	
	CORS Upgrades	10/15/2015	3/1/2016	50%
	Validation Range	10/15/2015	1/15/2016	12/3/2015
	RTN Maintenance	10/15/2015	Ongoing	Ongoing
	Attachment C Flight Plan Report	12/17/2015	1/15/2016	2/1/2016
	Control Surveys and Attachment C-1: Control Surveys Report	4/3/2016	4/3/2016	
3A	Acquisition	2/1/2016	5/1/2016	
	Acquire 27 Counties	2/15/2016	4/15/2016	88%
	Attachment D: Imagery Acquisition Compliance Report	2/1/2016	4/29/2016	
	Exploitation Samples	5/1/2016	5/1/2016	
3B	Acquisition Post-Processing	2/1/2016	5/29/2016	
	Attachment E: GNSS-IMU Post Processing & Aerotriangulation Report	3/1/2016	5/27/2016	
	Ortho Generation Workshop	4/27/2016	4/27/2016	
4	Quality Review Production and Product Delivery	8/1/2016	12/30/2016	
	QC Production Cycle	8/1/2016	12/30/2016	



Information Technology

PAT MCCRORY
Governor

KEITH WERNER
State Chief Information Officer

5	Implementation	1/31/2017	3/30/2017	
	Product Delivery	1/19/2017	1/28/2017	
	Implement the NC OneMap Geospatial Portal Solution	2/1/2017	Ongoing	
	60 day End-User Evaluation	1/16/2017	3/30/2017	
6	Project Closeout	4/1/2016	6/30/2016	
	Final Data Packaging and Final Reports	4/1/2017	5/31/2017	
	Project Closeout	6/1/2017	6/30/2017	

Budget

The expenditures for the project are summarized below. Note the current reporting period represents February 1, 2016 through February 29, 2016. The total budget for the project is \$4,047,760.

Item	This Reporting Period	Cumulative to Date	Percent Expended to Date
CGIA			
CGIA Labor	\$24,759.00	\$92,185.00	
ITS Hosting and Information Technology	\$0.00	\$0.00	
CGIA Travel	\$0.00	\$0.00	
CGIA Reimbursable Expenses	\$0.00	\$0.00	
CGIA Total	\$24,759.00	\$92,185.00	19.7%
Subcontractors			
NCDPS-NCGS	\$0.00	\$0.00	0.0%
NC DOT	\$981.84	\$981.84	0.6%
Sanborn	\$0.00	\$0.00	0.0%
Atlas	\$84,129.15	\$84,129.15	13.1%
Surdex	\$26,847.00	\$26,847.00	5.9%
Spatial Data	\$0.00	\$0.00	0.0%
ESRI	\$0.00	\$0.00	0.0%
VOICE	\$0.00	\$0.00	0.0%
Subcontractor Total	\$111,957.99	\$111,957.99	4.1%
Grand Total (for Project)	\$136,716.99	\$204,142.99	5.0%

Major Tasks Identified for March 2016

The emphasis of the project in March will be focused on the following major tasks:

CGIA

- Continue acquisition for remaining 12% of project area
- Evaluate and approve contractor landcover color samples
- Update project website and web mapping content for effective communication
- Approve VOICE design document and continue production and development
- Develop exploitation target locations throughout the study area for compliance monitoring
- Evaluate and approve remaining Attachment C-1 Survey reports
- Evaluate and approve Attachment D Imagery Compliance reports
- Initiate migration strategy for server consolidation and backup recovery
- Other tasks include regular team meetings and ongoing outreach to federal, state and local partners

NCGS

- Attend weekly project meetings
- Continue to perform maintenance on field survey and GPS equipment
- Initiate horizontal quality control planning

NCDOT

- Attend weekly project meetings
- Evaluate and approve report deliverables
- Host workshop for landcover evaluation

Private Subcontractors (Sanborn Map Company, Atlas Geographic Data, Surdex Corporation, Spatial Data Consultants)

Task 1 – Flight Planning

- Finalize all Attachment C Flight Plan Reports

Task 2 – Imagery Acquisition

- Complete remaining 12% of acquisition and reflights
- Continue development and approval of Attachment D Imagery Compliance reports
- Finalize all landcover sample images processing

Task 3 Aerotriangulation and Ortho Generation

- Initiate and continue AT production

Project Issues

There are no financial or technical issues to prevent the team from completing the project on time and within budget.

Please contact me by phone at (919) 754-6588 or email at tim.johnson@nc.gov if you have questions about this report or about contractual or administrative aspects of the project. Contact Darrin Smith of CGIA at (919) 754-6589 or email at darrin.smith@nc.gov regarding technical matters related to the project.

Sincerely,



Tim Johnson, GISP
Director
Center for Geographic Information and Analysis

Psap ID	PSAP	3/1	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	3/11	3/12	3/13	3/14	3/15	3/16	3/17	3/18	3/19	3/20	3/21	3/22	3/23	3/24	3/25	3/26	3/27	3/28	3/29	3/30	3/31		
89	Ahoskie Police Department	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	
2	Alamance County Central Communications	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	LOW	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	
3	Alexander County E9-1-1 Communications	YES	LOW	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
4	Alleghany County E911	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
5	Anson County Emergency Communications	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	
6	Ashe County Communications Center	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	
7	Avery County Communications Center	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
8	Beaufort County Communications Center	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
66	Beech Mountain Police Department	NO	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES	YES	NO	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	YES	NO	YES	YES	NO	NO	
9	Bertie County Communications	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
10	Bladen County Central Communications	YES	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	
67	Boone Police Department 911	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	
11	Brunswick County Central Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
12	Buncombe County Emergency Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	LOW	LOW	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	
13	Burke County ECC (BCECC)	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	
193	Burlington PD	YES	LOW	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	
21	Butner Public Safety Communications	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
17	Cabarrus County Sheriff's Office Communications	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	
18	Caldwell County Sheriff's Office/E-911 Comm Center	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
19	Carteret Emergency Communications Center	YES	YES	LOW	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
60	Cary Police Department	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	
20	Caswell County 911 Communications	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	LOW	YES	YES	LOW	
22	Catawba Co Communications Center	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	LOW	YES	
125	Charlotte-Mecklenburg Police Communications	YES	YES	LOW	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	
23	Chatham County Emergency Operations	YES	YES	YES	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	
25	Cherokee County 911 Communications	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
26	Chowan Central Communications	YES	YES	LOW	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	
79	City of Durham Emergency Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	
112	City of Jacksonville	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	LOW	YES	
27	Clay County E911	YES	YES	LOW	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	
28	Cleveland County Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
31	Columbus Central Communications	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	LOW	YES	YES	LOW	YES	YES	LOW	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
126	Cornelius Police Communications	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	
34	Craven County Emergency Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	
36	Cumberland County 9-1-1	LOW	YES	LOW	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
40	Currituck Communications	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	LOW	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	
42	Dare Central Communications	LOW	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	LOW	YES	LOW	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
76	Davidson County 911	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	LOW	
77	Davie County 911 Communications	LOW	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
73	Dunn Police Dept.Telecommunications Center (NRC)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
78	Duplin County Communications	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
52	Eastern Band of Cherokee Indians Public Safety Disp	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
37	Eden Police Communications (NRC)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
80	Edgecombe County 911	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	
39	Fayetteville Communications	YES	LOW	YES	YES	YES	LOW	LOW	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
83	Forsyth County 911 Communications	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	YES	
85	Franklin County Communications Center	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	LOW	YES	YES
86	Gaston County 911 Communications	YES	YES	YES	YES	YES	LOW	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	LOW	YES	LOW	YES	YES	YES	YES	YES	LOW	YES	YES	YES		

PSAP Grant-Statewide 911 Projects Fund																	
			Grant Completion (+/-)	Total Disbursed FY 2011 - FY2014	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Remaining Grant Balance
Fund Balance					\$22,137,701.90	\$21,126,286.12	\$20,092,880.40	\$37,817,348.33	\$37,281,087.71	\$35,942,548.89	\$35,329,044.35	\$34,716,269.51	\$33,594,468.93	\$32,862,501.75	\$32,862,501.75	\$32,862,501.75	
Grant Award FY2012	FY2012 Grant Award Total	Completed Grant Disbursement															
Burke County	7,280,630.00			-6,951,958.20													328,671.80
Rockingham County	7,826,000.00			-6,801,027.57	-234,248.42	-22,830.01	-73,280.35		-13,335.60								681,278.05
Grant Award FY2013	FY2013 Grant Award Total	Completed Grant Disbursement															
Brunswick County	2,100,000.00			-1,374,083.13	-237,562.83	-278,300.57											210,053.47
Lenoir County	7,400,000.00			-6,595,558.27					-320,277.98								484,163.75
Grant Award FY2014	FY2014 Grant Award Total	Completed Grant Disbursement															
Anson County G2014-01	949,000.00			-797,434.36													151,565.64
Bladen County G2014-02	300,000.00			-175,515.31	-200,670.00		76,185.31										0.00
Gates Co. Central G2014-03	149,000.00			-149,000.00													0.00
Henderson County G2014-04	3,600,000.00			-3,371,610.72	-36,699.43		-8,703.25							-16,280.31			166,706.29
Hertford County G2014-05	4,250,000.00			-379,594.45	-154,292.07	-208,144.44		-371,314.76	-140,385.29	-400,618.03	-269,942.92			-293,665.77			2,032,042.27
Orange County G2014-06	625,828.00			-538,141.28	-16,237.50												71,449.22
Swain County G2014-07	610,000.00			-568,446.02	-28,799.45												12,754.53
Grant Award FY2015	FY2015 Grant Award Total	Completed Grant Disbursement															
Caldwell County G2015-001	1,022,399.00			0.00			-244,209.74		-105,091.55	-10,000.00	-65,635.60	-570,362.73					27,099.38
Dare County G2015-002	7,002,795.00			-160,785.33		-19,887.62	-59,518.40		-22,844.81	-127,089.45			-108,845.41				6,503,823.98
Haywood County G2015-003	2,694,827.00			-131,738.80	-20,923.96	-62,153.96	-537,863.81		-12,621.46	-12,621.46	-27,416.36	-5,993.42	-89,759.79				1,793,733.98
Swain-Jackson Co G2015-004	859,681.00			-763,309.04					-16,997.01			-79,374.95					0.00
Grant Award FY2016	FY2015 Grant Award Total	Completed Grant Disbursement															
Graham County G2016-01	3,401,528.00			0.00													3,401,528.00
Hyde County G2016-02	1,266,887.00			0.00													1,266,887.00
Richmond County G2016-03	6,357,537.00			0.00													6,357,537.00
STATEWIDE PROJECTS:																	
E-CATS	3,000,000.00			-2,440,646.07	-57,600.00	-59,854.12	-57,600.00	-57,600.00	-57,600.00								269,099.81
E-CATS II	2,000,000.00			0.00						-57,600.00	-76,813.16	-58,598.29	-58,557.89				1,748,430.66
Interpretive Services	1,155,000.00			0.00													1,155,000.00
Ortho Project III Image 14	3,987,667.00			-3,421,187.39	-11,272.84	-29,087.40		2,165.79									523,953.58
Ortho Project III Image 15	3,719,332.00			-1,517,972.83	-22,909.95	-363,189.40		-496,324.00	-435,950.80	-284,911.87	-63,300.43	-89,826.97	-49,148.51				395,797.24
Ortho Project III Image 16	4,076,752.00			0.00													3,872,583.00
Approved Transfer from PSAP Fund Interest					9,800.67	10,041.80	18,618,895.26	10,562.91	19,829.17	17,495.15	19,103.53	21,008.74	19,750.70	21,007.50			
Total Ending Fund Balance					\$ 21,126,286.12	\$ 20,092,880.40	\$ 37,817,348.33	\$ 37,281,087.71	\$ 35,942,548.89	\$ 35,329,044.35	\$ 34,716,269.51	\$ 33,594,468.93	\$ 32,862,501.75	\$ 32,862,501.75	\$ 32,862,501.75	\$ 32,862,501.75	\$ 31,454,158.65

NG 911 FUND	Revenue 10%	Interest	NG 911 Disbursement	NG 911 Fund Balance
January 2016	\$578,782.48	\$0.00		\$578,782.48
February 2016	630,931.12	329.28		1,210,042.88
March 2016	824,023.25	756.67		2,034,822.80
April 2016				
May 2016				
June 2016				

***NG911 Fund Balance is Only Estimated At This Time Due To Reporting Issues
Establishing The New Account With OSC (Office of State Controller)*

CMRS FUND:	CMRS Revenue	Interest	CMRS Disbursement	GRANT Allocation	CMRS Fund Balance
Beginning Fund Balance:					\$1,326,272.78
July 2015	\$755,329.89	\$587.16	\$263,884.10		\$1,818,305.73
August 2015	825,442.67	864.28	225,238.68		2,419,374.00
September 2015	690,604.43	1,271.87	219,778.40		2,891,471.90
October 2015	735,377.74	1,516.12	21,408.02		3,606,957.74
November 2015	761,553.47	1,692.66	379,473.69		3,990,730.18
December 2015	726,073.96	2,121.08	859,158.81		3,859,766.41
January 2016	697,462.98	2,295.25	187,747.94		4,371,776.70
February 2016	678,800.71	2,487.18	452,663.30		4,600,401.29
March 2016	703,508.32	2,876.75	3,090,030.85		2,216,755.51
April 2016					
May 2016					
June 2016					

Revenue						GRANT Allocation Transfer out	Monthly Expenditure	Fund Balance
PSAP FUND	PSAP 80%	Wireline	VOIP	Prepaid Wireless	Interest	Total		\$ 16,312,532.95
July 2015	\$3,021,319.56	\$1,135,511.24	\$1,003,072.05	\$1,349,460.80	\$7,221.78	\$6,516,585.43	\$4,299,386.18	\$18,529,732.20
August 2015	3,301,770.69	1,193,516.67	1,484,185.43	829,155.61	8,807.60	6,817,436.00	4,130,307.15	\$21,216,861.05
September 2015	2,762,417.73	1,232,962.11	938,447.56	923,432.19	11,153.79	5,868,413.38	18,618,895.26	\$4,361,120.30
October 2015	2,941,510.96	954,578.04	938,549.82	862,014.38	2,286.71	5,698,939.91	4,139,932.30	\$5,920,127.91
November 2015	3,046,213.89	1,322,098.40	988,899.15	750,843.61	2,778.18	6,110,833.23	4,146,495.24	\$7,884,465.90

December 2015	2,904,295.86	1,145,867.47	983,068.59	864,393.73	4,190.61	5,901,816.26	4,146,495.24	\$9,639,786.92
January 2016	2,789,851.92	692,708.80	976,928.15	704,234.46	5,732.39	5,169,455.72	4,146,495.24	\$10,662,747.40
February 2016	2,715,202.89	1,232,670.04	994,902.49	821,413.47	6,066.23	5,770,255.12	4,146,495.24	\$12,286,507.28
March 2016	2,814,033.24	698,217.56	883,733.08	716,906.83	7,683.08	5,120,573.79	4,146,495.24	\$13,260,585.83
April 2016								
May 2016								
June 2016								

The NC 911 Board welcomes comments from state and local government officials, first responders, finance directors, 911 directors, citizens and interested parties about any 911 issue(s) or concern(s). Your opinions are valued in terms of providing input to the NC 911 Board members.

When addressing the Board, please state your name and organization for the record and speak clearly into the microphone.

Executive Director Report

Richard Taylor

a) Update On Telecommunicator Certification
Discussions

Proposal From CGIA On Statewide Orthography Project As A Statewide Grant

(vote required)

Tim Johnson
Executive Director
CGIA

STATEWIDE ORTHOIMAGERY PROGRAM

Phase 2

Eastern Piedmont

Orthoimagery Acquisition, Processing and Distribution

Prepared for

North Carolina 911 Board

Prepared by

North Carolina Center for Geographic Information and Analysis

April 8, 2016

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Background

Orthoimagery is a fundamental, mission critical dataset loaded into Computer Aided Dispatch (CAD) systems for use in all Primary 911 centers in the state as a result of the Statewide Orthoimagery Project 2010 and most recently the Statewide Orthoimagery Program 2012-2015. North Carolina has moved from a patchwork quilt of county imagery with varying dates of acquisition to a complete, consistent, current dataset due to the investment of the NC 911 Board. Benefits resulting from this investment include saving time in locating and responding to emergencies, saving time in informing public decisions, increasing public revenue due to more accurate data for assessments, and avoiding costs of erroneous information from out-of-date imagery and map features.

The Statewide Orthoimagery Project in 2010 demonstrated the value of digital aerial imagery as a fundamental dataset for Public Safety Answering Points (PSAPs), as well as numerous local, regional, state, and private purposes. The Geographic Information Coordinating Council and its collaborating participants developed and distributed the *Business Plan for Orthoimagery in North Carolina* in October 2010 in response to questions about the future of orthoimagery in the context of statewide programs and policies (see http://ncgicc.net/Portals/3/documents/OrthoImageryBusinessPlan_NC_20101029.pdf).

The result was a plan that recommended an annual, quarter-state acquisition of new orthoimagery beginning in January 2012 and continuing through 2015 (the first four-year cycle). The Plan recognized that funding sources with a statewide perspective, thus recognizing economies of scale, were essential to achieving a coordinated program. Since then, the Center for Geographic Information and Analysis (CGIA) has delivered over 53,500 square miles of high resolution imagery to every Primary PSAP spanning all 100 counties.

To continue to sustain the currency of this mission critical dataset, CGIA proposed a second four-year cycle beginning in January 2016 and continuing through 2019 (See Figure 1). The NC 911 Board approved this proposal in February 2015. Phase 1 (Coastal 2016) of this cycle collected imagery for 27 counties along the coast in early 2016 and is scheduled to deliver the final products to the 28 PSAPs for this region in January 2017.

Phase 2 (referred to as Eastern Piedmont 2017) is the subject of this proposal. The Eastern Piedmont area includes 15,146 square miles spread over 26 counties and consists of 16,890 tiles of orthoimagery. This phase includes the Raleigh-Durham-Chapel Hill metropolitan area, the entire US Army Base at Fort Bragg, Camp Mackall, and Seymour Johnson Air Force Base. The project team established a strong working relationship with military partners over the past four-year cycle resulting in permission to acquire imagery over these installations. CGIA will continue to work with these partners to request permission to fly and acquire imagery for these areas.

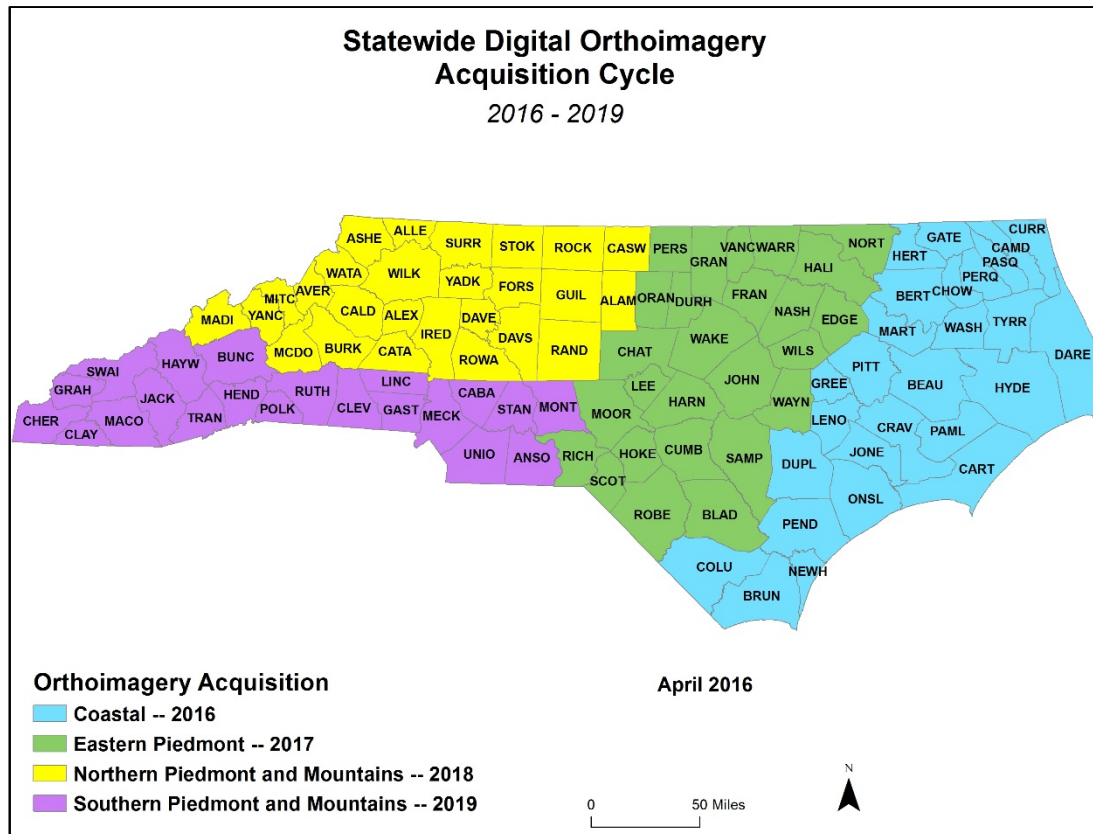


Figure 1: Statewide Digital Orthoimagery Acquisition Cycle

Project Team

1. CGIA

CGIA will serve as the project manager of all third party contractors and state partners, to include performing qualifications-based selection (QBS) procurement for private sector contractors, developing contracts, managing invoices, and documenting scope of work on the project. CGIA will also oversee all quality review activities and resolutions, manage the creation of all final orthoimagery products, coordinate outreach with Primary PSAPs and local government representatives, and ensure client satisfaction.

2. NCDOT Photogrammetry Unit

NCDOT Photogrammetry will provide advisory and technical services throughout the project. NCDOT has extensive expertise and experience in the area of photogrammetry (i.e., the art, science, and technology behind obtaining reliable accurate measurements and three-dimensional data from overlapping photographs). NCDOT Photogrammetry manages the orthoimagery acquisition and visual quality control processes for the project team. They will evaluate and advise on all report documentation, technical data submittals, and contractor submittals. They will also perform quality review for 30% of the study area.

3. NC Department of Public Safety-NC Geodetic Survey

The NC Geodetic Survey has extensive expertise and experience in managing positional quality control for orthoimagery. For this project, NC Geodetic Survey will advise on the QBS procurement process for private contractors, maintain validation range for testing and approving digital cameras, and perform horizontal quality control. They will also evaluate report documentation and technical data submittals directly related to survey control.

4. NC Department of the Secretary of State, Land Records Management Section

The Department of the Secretary of State is the author of the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping*, the state standard for orthoimagery acquisition. For this project, the Land Records Management Section will advise on the QBS procurement process of private contractors, interpret the state standard for the project team as needed, and serve as a member of the state project team throughout the project.

5. Private Contractors

Private contractors, managed by CGIA with support from collaborating members of the state project team, will perform acquisition and processing of orthoimagery covering all project counties.

6. Local Governments

The Public Safety Answering Points and the local government GIS representatives are critical to the successful completion of each orthoimagery project. They will perform preliminary quality review of the product, receive final delivery of the orthoimagery from CGIA, and coordinate with project team for any product exceptions or outstanding issues.

Value Proposition

In 2011, the NC 911 Board selected CGIA as the Project Manager for all aspects of the Statewide Orthoimagery Program. A primary focus of the project team charter was to place a concentrated emphasis on project administration, quality control, and oversight and accountability of private contractors to insure a deliverable product meeting specifications and the needs of the client. The remainder of this section emphasizes that approach on the following:

1. Proactive approach
2. Oversight and accountability
3. Client focus, essential and constructive feedback, and a positive product evolution
4. Visual consistency
5. Next Generation 911

CGIA's core paradigm of project management, which reaches every corner of the project, is simple: The team takes a proactive front-end approach to quality and project administration rather than engage in back-end reactive measures to issues leading to cost overruns and schedule delays. As a result, each phase of the 2012-15 cycle was completed on time and under budget. CGIA contracts NCDOT to perform primary oversight and accountability of all

contractor specifications. NCDOT has also developed real-time acquisition monitors allowing the team to review results of every flight mission not to exceed five days after the mission occurs. If the flight mission fails to meet certain parameters, re-flights are required. Finally, CGIA includes contractual terms and conditions mandating re-flights the next flying season if there is demonstrated non-conformance, evidence of systematic failure, or substandard delivery that would have been avoided by vendor's notification of such occurrences. CGIA has and will continue to closely regulate compliance and enforce terms and conditions to insure the Board's investment remains a top priority. As an example, for the 2016 project CGIA implemented even tighter measures to document more quantitative analytics for every mission. Figure 2 demonstrates an outlier in flight acquisition that flags the potential for image blur. Measures such as these drive continuous improvement of the QC process ensuring technical specifications are met.

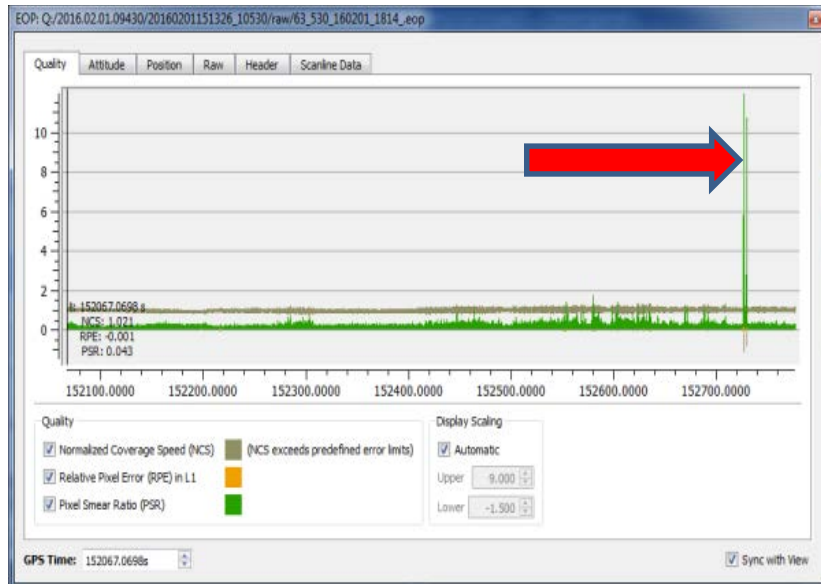


Figure 2: Exterior orientation graph used to identify aircraft turbulence

CGIA places a heightened awareness and focus on the 911 Board client and the Primary PSAP endpoints. Early in the project, CGIA works with 911 Board staff to establish a single point of contact (POC) representing the Primary PSAP or a delegated individual. Communications always flow through the POC for all news, updates, status, and delivery. To stress this point, prior to the January deliverables, CGIA works with PSAPs to schedule regional delivery and briefing meetings at 911 facilities. For final delivery, CGIA will only deliver the final product to a 911 representative unless otherwise directed. In addition, CGIA will not publish the final product to public sources until delivery to the PSAP has occurred. Finally, CGIA enhances more simple methods of communication through the use of online visual mapping. Figure 3 demonstrates how POC's can visualize the QC

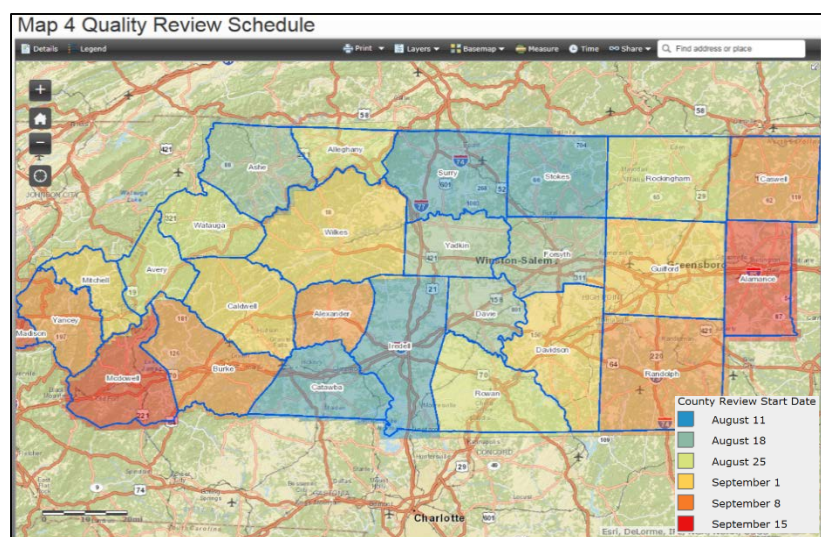


Figure 3: Quality Review Schedule

delivery order through maps rather than dialog.

Additionally, CGIA and the project team strive to incorporate lessons learned and feedback received from the 911 Board and PSAPs to improve the final products delivered at the end of the project. Throughout the first four-year cycle, advancements have been made to the single, county-wide imagery file that a majority of PSAP CAD systems employ. Figure 4 displays an example of how this single file product now extends to a minimum of seven miles outside the county boundary, including any imagery from previous projects falling within the seven-mile coverage rectangle. CGIA also worked with partners in neighboring states to obtain imagery necessary to complete the coverage rectangle into the bordering state. This deliverable is the result of lessons learned on the capabilities of some CAD systems in handling multiple input

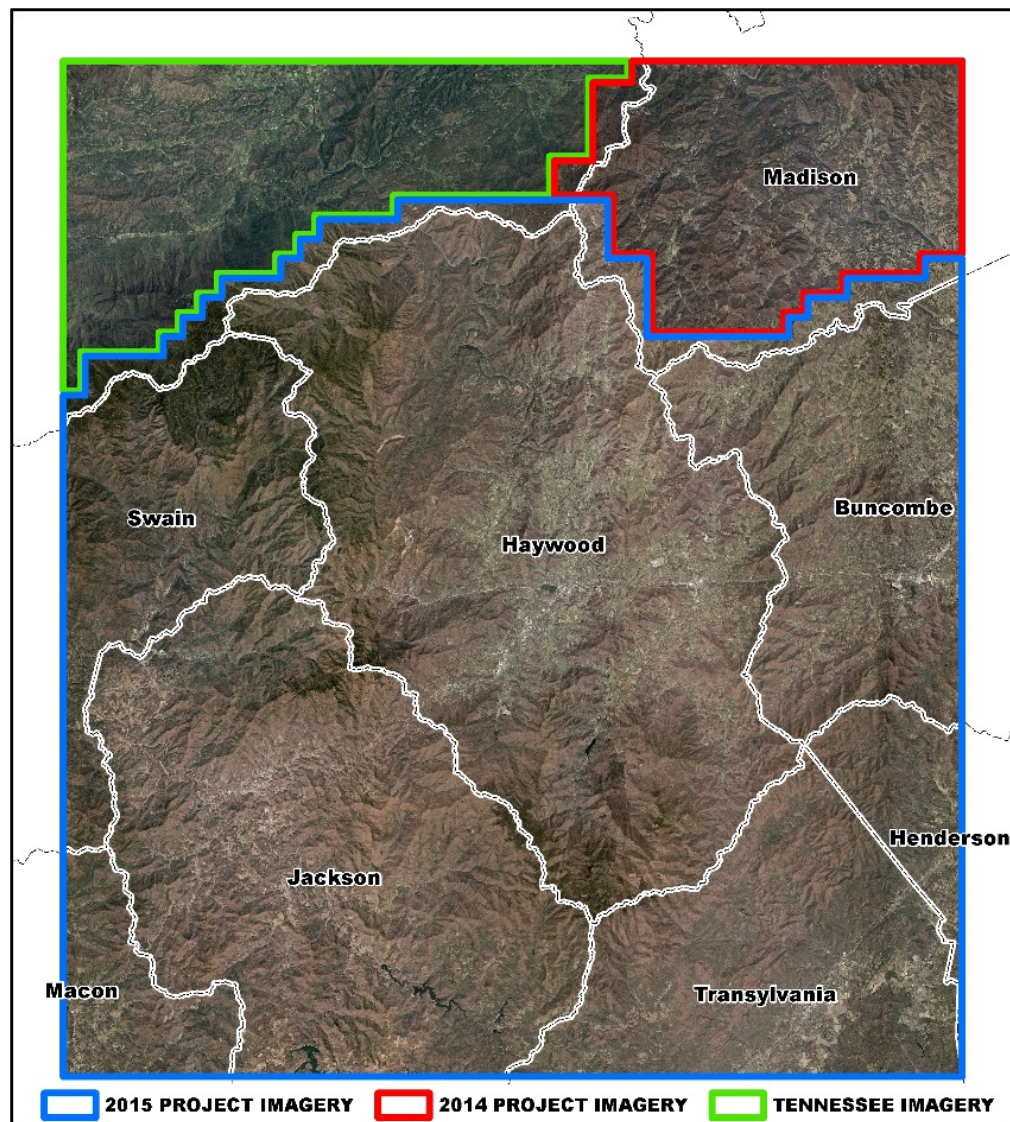


Figure 4: Single File Deliverable for Haywood County

files and the concern over assuring basemap coverage for the routing of cellular phone calls to 911 originating from outside a county's borders.

Along with the seven-mile single file deliverable, each county receives the full resolution imagery tiles, 20:1 compressed tiles, and the single file deliverable for each of the adjacent counties. The map in Figure 5 demonstrates the extent of all these imagery products delivered for a single county. This provides each PSAP with a full regional picture and removes all assumptions on the part of the project team as to what extent to provide for each specific delivery.

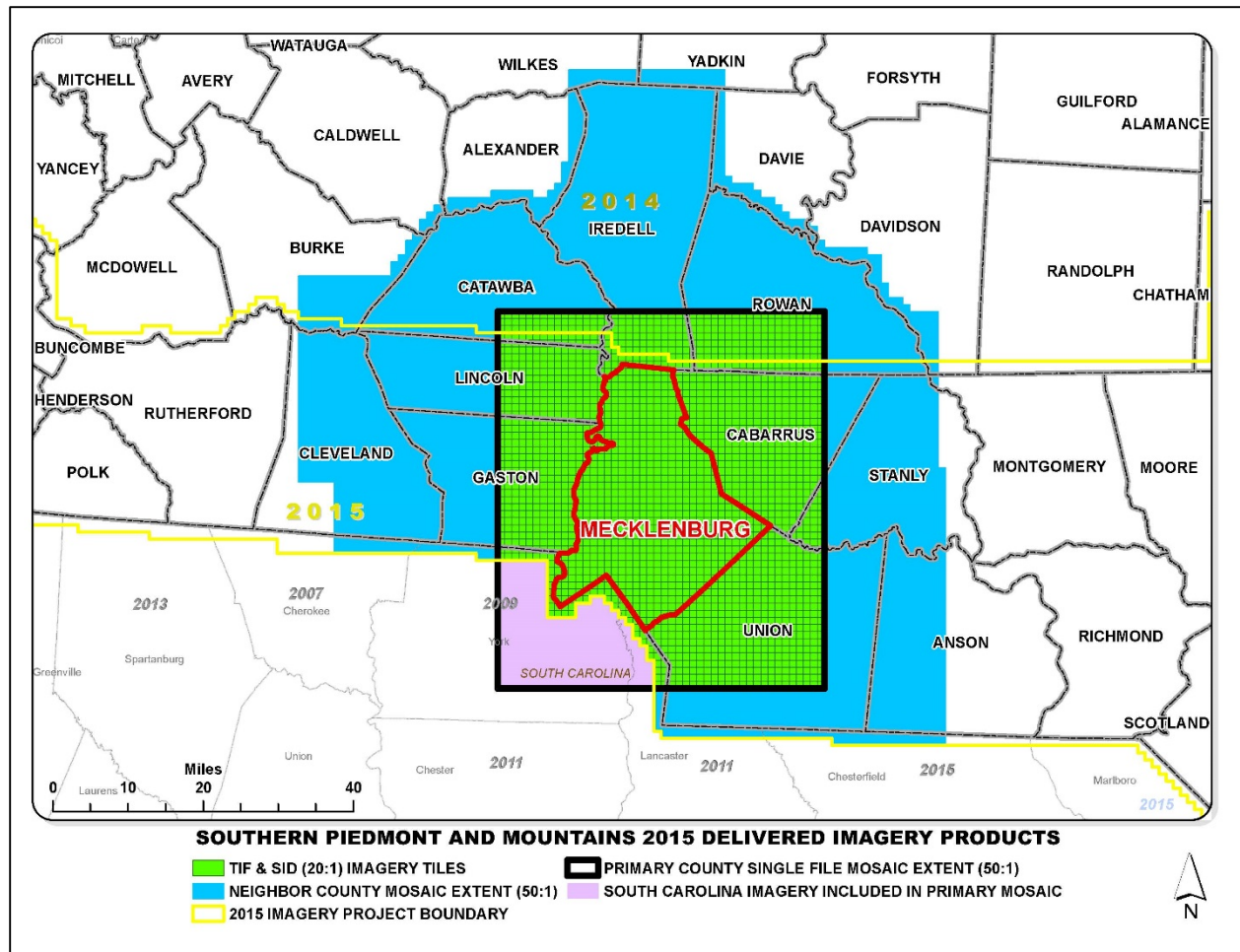


Figure 5: All delivered imagery products for Mecklenburg County

The visual nature of the deliverable product ultimately drives expectations and perceptions. As part of the proactive approach to quality, the project team implemented a concept called Tier 1 which means quite simply that all deliverables must be visually consistent within reason across the extent of each phase. Complementing this is a common sense approach to imagery that it should be representative of the most realistic ground and atmospheric conditions. By default, contractors will deliver: (1) to minimum requirements, (2) by applying their most productive and internal cost effective methods for delivery, and (3) by aligning with their own internal standards and workflows. CGIA mandates multiple contractor engagement for matching each other's overall color and sharpness to deliver a product that is visually consistent within reason. This has resulted in a superior product throughout the phases of the current program.

The pending implementation of Next Generation 911 (NG911) in North Carolina will rely heavily on the orthoimagery produced from this initiative. Utilizing the National Emergency Number Association's (NENA) i3 standard will require the development and on-going maintenance of three statewide GIS datasets: street centerlines, address points, and emergency service boundaries. These three datasets are critical to call routing, call taking, and responder dispatch. The spatial accuracy and consistency of the orthoimagery will support the demanding quality control requirements for these GIS data layers. The alignment between orthoimagery and NG911 GIS datasets will also be critical in the context of backup/failover and mutual support scenarios supported by NG911.

Costing Approach

Private contractors account for up to 75% of the total budget, with the majority of this cost directly tied to the flying season and post processing of the raw imagery product between January and July as demonstrated in Figure 6. In as much as CGIA administers project management, it places an equal focus on the analysis of contractors' costs. The 2016 contractor procurement realized an overall substantial budget underrun due to efficiencies gained through

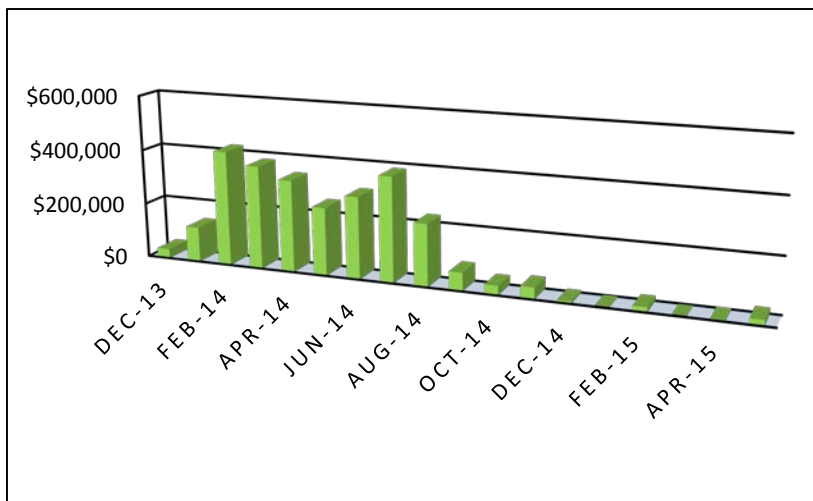


Figure 6: 2014 Actual Acquisition Contractor Cash Flow

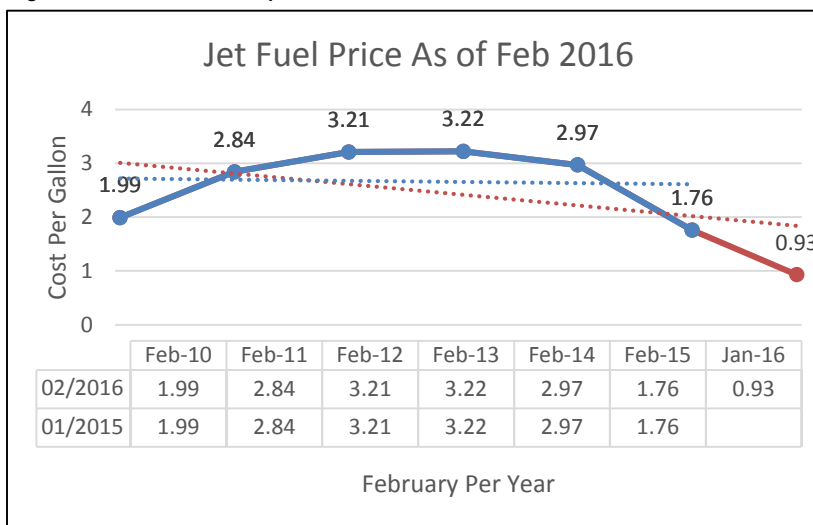


Figure 7: Jet Fuel Price Trends

use of new LiDAR (or elevation) products derived by the state, as well as a sharper than expected deflation in the price of jet fuel of nearly 70% shown in Figure 7. Past performance has demonstrated costs are attributed to three primary factors: the cost of fuel and overhead inflation; the complexity of the study area most notably the difficulty in the mountains; and the efficient use of "2nd Generation" sensors.

Advances in large format sensor technology since 2012 drive efficiency resulting in larger footprints, higher flight altitudes, reduced numbers of flight lines, increased velocities, less flight time, less fuel consumption, and reduced number of exposures for processing. In summary bigger, higher, faster image acquisition means less cost to the 911 Board. Using the actual 2016 per unit contractor budget as a starting point, an

inflationary costing model based on project actuals from the 2012-2015 cycle is applied to forecast costs associated with the Eastern Piedmont 2017 project. CGIA assumes the trend will continue into 2017 thus recognizing a reduced requested budget of \$224,791 less than originally forecast in February 2015 for the 2017 phase.

Level of Effort and Cost

The table below provides the level of effort required to complete the Eastern Piedmont 2017 project based on the set of tasks described in this proposal.

Item	Fee
CGIA Labor	\$426,384
Private Contractors	\$2,871,300
Information Technology	\$62,729
NCDOT-Photogrammetry	\$161,826
NCDPS-NC Geodetic Survey	\$210,840
VOICE (QC Service Provider)	\$78,750
Travel and Miscellaneous	\$3,300
Total	\$3,815,129

Table 1: Costs

Assumptions

1. CGIA Labor line item is calculated at the current approved rate of \$84 per hour. This rate is subject to change during the course of the project.
2. Information Technology line item cost includes storage and backup fees for the NC Department of Information Technology Eastern Data Center servers at current billing rates.
3. Software for serving imagery is likely to require some expense for customization, upgrades, and other maintenance.
4. The Virtual Online Inspection, Checking and Editing (VOICE) application used for 2012-2016 will be continued and enhanced as needed to support the QC process.

Schedule

Table 2 outlines the schedule for Phase 2. It assumes approval to proceed is granted by the NC 911 Board in May 2016.

Task	Begin	End
1: Qualifications-Based Selection and Procurement	July 2016	December 2016
2: Imagery Acquisition and Production	January 2017	July 2017
3: Quality Control	August 2017	December 2017
4: Implementation	January 2018	April 2018
5: Project Closeout	May 2018	June 2018

Table 2: Phase 2 Schedule

Scope of Work

The scope of work consists of five distinct tasks performed by a combination of the state project team and private sector contractors.

Task 1: Qualifications-Based Selection and Procurement (July – December 2016)

The purpose of this task is to develop contracts with public and private sector project partners, and begin other administrative tasks in preparation for orthoimagery acquisition. Specific activities under this task include:

1. Develop statements of work, develop and execute contracts between CGIA and the NC 911 Board, and develop contracts between CGIA and the NCDOT Photogrammetry Unit and the NCDPS-NC Geodetic Survey, respectively.
2. Develop and release an RFQ and manage a QBS process for private sector contractors.
3. Select private sector contractors as a result of the QBS process and negotiate actual cost.
4. Initiate project planning, meet with project partners, and begin outreach activities with stakeholders.
5. Conduct kickoff and planning workshops with all applicable parties including project partners, contractors, and the Geographic Information Coordinating Council Working Group for Orthophotography Planning.
6. Develop core data required to support the project, develop project websites, initiate open lines of communication, and implement the project SharePoint site.

Deliverables:

- Contract between CGIA and the NC 911 Board
- Contracts between CGIA and NCDOT Photogrammetry and NCDPS-NC Geodetic Survey
- Contracts with private sector contractors
- Detailed summaries of workshops

Task 2: Imagery Acquisition and Production (January – July 2017)

The purpose of this task is to acquire leaf-off imagery and to perform and document all post processing activities prior to product delivery. Prior to the flying season, the team must plan the technical details of the project, finalize technical requirements, and develop, engage, review, and approve quality compliance documentation. The flying season is driven by sun angle and vegetation per the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping*, the state standard. The goals are to minimize shadows, snow, and vegetative cover that would obscure infrastructure. CGIA and the state project team, including NCDOT, NC Secretary of State, and NC Department of Public Safety (NCDPS)-NC Geodetic Survey, mandates adherence by subcontractors to the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping* and invests a detailed focus on photogrammetric compliance. Specific activities under this task include:

1. Acquisition Planning. Validate digital sensors using NC's validation range and procedures. Produce and review and finalize detailed flight plans. Design and implement ground control and survey planning.
2. Review planning compliance documentation.
3. Finalize imagery specifications to facilitate consistent radiometric deliverables across varying land classifications and contractor study areas.
4. Conduct flights, acquire orthoimagery, and verify images captured meet state specifications.
5. Perform all post processing activities required to develop a tile-based orthorectified product.
6. Deliver acceptance documentation for acquisition and all post processing submittals.
7. Develop and procure agreement with the VOICE quality control application contractor.
8. Quality Control Application: Update the VOICE application based on the previous projects' user experience. The VOICE application receives the delivery of orthoimagery tiles and facilitates three levels of visual quality control (Levels 2-4 where Level 2 is a 30% quality review by NCDOT, Level 3 is a 5% review by CGIA, and Level 4 is an independent review by PSAP and local government end-users).
9. Confirm software readiness to support quality review process. Acquire hardware to facilitate receipt of processed data. Plan hosting services and software updates to accommodate online access to imagery.
10. Outreach: Perform outreach and conduct training programs for PSAPs and local government points of contact to perform quality review during the Production stage. CGIA will work with the NC 911 Board to identify the appropriate contacts.

Deliverables:

- Detailed requirements for imagery products
- Quality Review Training programs
- Reports verifying images captured meet state specifications

Assumptions

- To account for weather and leaf-off conditions, flight terms vary depending on geographic areas.

Task 3: Quality Control (August – December 2017)

The purpose of this task is to perform the following four primary tasks:

- Complete a full circle quality review on the image deliverable product (including review, issues submittal, resolution, resolution submittal review, and signoff)
- Develop secondary image format after satisfactory signoff and delivery of the TIFF product

- Implement DIT hosting services and procurement and initiate data loading onto NC OneMap
- Open communications for final delivery.

Specific activities under this task include:

1. Finalize and secure DIT hosting services and perform initial image data loading onto DIT servers.
2. Conduct Level 1 quality review by imagery processing contractors to assure the imagery meets state specifications and is free of systematic error or systematic visual quality issues and to verify the quality and completeness of the product.
3. Conduct Level 2-4 quality review through the VOICE application, identify valid issues, and submit and receive revised imagery from imagery processing contractors.
4. Develop a MrSID format 20:1 compression file for each tile in the county and a 50:1 compression format that represents an entire county mosaic. CGIA will request feedback from PSAP and local government end-users to determine exceptions to the delivered compression format.
5. Complete horizontal quality control and review process.
6. Work with Primary PSAP contacts to set and schedule January delivery meetings.
7. Package imagery products on portable disk drives to include delivery of final imagery in GeoTIFF format, MrSID compressed format, metadata, and other applicable documentation. This also includes the logistics to maintain master copies of the GeoTIFF tiles, MrSID tiles and mosaics, finalize metadata files, assemble neighbor imagery, and collect other applicable data relevant to the primary county.

Deliverables:

- Quality control reports per county

Assumptions

- GeoTIFF product release by the processing contractor(s) will occur no later than seven months after completion of flights.
- The Public Safety Answering Points and the local government GIS representatives perform early quality review of the product as part of the Level 4 quality review through the VOICE application.

Task 4: Implementation (January – April 2018)

The purpose of this task is to deliver the final orthoimagery product to each PSAP including prior phase data as well as imagery seven miles into Virginia and South Carolina, implement release of data on NC OneMap, and evaluate each county's quality review (60-day evaluation period).

1. Product Delivery: This task includes the distribution of data to each PSAP.
2. NC OneMap Implementation: CGIA will load the imagery into the NC OneMap database for public access as imagery services and as downloadable compressed imagery. The storage and maintenance will be continuous through the four cycles of quarter-state imagery acquisition.
3. 60-Day Evaluation: Each PSAP and county GIS office will evaluate the delivered product(s) during a period of 60 days to validate completeness or defectiveness or the existence of quality issues. CGIA will work with PSAPs to deliver exceptions and/or resolve outstanding data with contractors.

Deliverables:

- Final orthoimagery in GeoTIFF and MrSID formats
- NC OneMap release

Assumptions

- State of Virginia and State of South Carolina will supply data

Task 5: Project Closeout (May – June 2018)

The purpose of this task is to perform project management and other activities relevant to project closeout and procurement. This includes evaluating final contractor invoices and issuing final payment after state acceptance of all deliverables. Resolving and accepting final delivery of outstanding documentation, including final and lessons learned reports by acquisition contractors, to finalize contractor performance evaluations, conclude contractor agreements, to develop and deliver the final project report, and to perform project management closeout.

Deliverables:

- Final Report

Assumptions

- None

Summary of Deliverables

Technical

1. Orthoimagery, true color with 0.5-foot resolution in 5,000 by 5,000 foot tiles (equivalent to a mapping scale of 1 inch – 200 feet) in GeoTIFF and MrSID (20:1 compression ratio) formats, as well as a derived single file per county MrSID mosaic (50:1 compression ratio) format.
2. Imagery will be consistent with the *North Carolina Technical Specifications for Digital Orthophoto Base Mapping*, Land Records Management Section, North Carolina Department of the Secretary of State.
3. Metadata in txt, HTML, and XML for (one record per format per county)
4. Statewide and county tile index
5. Elevation data if modified
6. NC OneMap image services

Reports and Requirements

1. Weekly status meeting minutes and contractors' status reports
2. Monthly invoicing, status, accomplishments, and plans
3. Distribution schedules
4. Reports include Flight Planning, Survey Control, Imagery Acquisition Compliance, Exploitation Image Post Processing, Airborne GPS Post Processing, Aerotriangulation, Orthoimagery Delivery, Quality Review Resolutions and Final Report.

Standards Committee Report

a) Rules Review Update

(vote required)

Laura Sykora

Richard Bradford

NC 911 Board Rules

How to Make Comments on Proposed Rule Amendments

Public Comment Period Ends on April 1, 2016

Oral Comments

Oral comments may be made by contacting Teresa M. Bank at (919) 754-6285 or by appearing at the Public Rulemaking Hearing scheduled for:

Public Rulemaking Hearing

February 26, 2016

10:00 a.m.

NC 911 Board Office
3514 A Bush Street, Banner Elk Room
Raleigh, NC 27609

Written Comments

Written comments may be mailed to the address listed below, or may be emailed to: teresa.bank@nc.gov

Written Objections

The objection, reasons for the objection, and the clearly identified portion of the rule to which the objection pertains, must be submitted in writing to:

Teresa M. Bank
Rulemaking Coordinator
NC Department of Information Technology
P.O. Box 17209
Raleigh, NC 27619-7209

Procedure for Subjecting a Proposed Rule to Legislative Review

If an objection is not resolved prior to the adoption of the rule, a person may also submit written objections to the Rules Review Commission. If the Rules Review Commission receives written and signed objections in accordance with G.S. 150B-21.3(b2) from 10 or more persons clearly requesting review by the legislature and the Rules Review Commission approves the rule, the rule will become effective as provided in G.S. 150B-21.3(b1). The Commission will receive written objections until 5:00 p.m. on the day following the day the Commission approves the rule. The Commission will receive those objections by mail, delivery service, hand delivery, or facsimile transmission. If you have any further questions concerning the submission of objections to the Commission, please call a Commission staff attorney at 919-431-3000.

911 BOARD SUMMARY OF PROPOSED RULES

TITLE 09, CHAPTER 06, SUBCHAPTER C

911 BOARD

SECTION .0100 – FORMS, DEFINITIONS, ADMINISTRATION

09 NCAC 06C .0111 REQUESTS FOR DECLARATORY RULINGS

Describes procedures for a PSAP or service provider to follow when requesting a declaratory ruling from the 911 Board.

09 NCAC 06C .0112 RESPONSE TO A REQUEST FOR A DECLARATORY RULING

Describes procedures 911 Board shall follow when responding to a request for a declaratory ruling.

09 NCAC 06C .0113 DURATION OF A DECLARATORY RULING

Describes effects of a declaratory ruling.

09 NCAC 06C .0114 RECORD OF RULING

Requires that records of declaratory rulings be kept on file at the 911 Board office.

SECTION .0200 – PUBLIC SAFETY ANSWERING POINTS (PSAPS)

09 NCAC 06C .0205 COMPREHENSIVE EMERGENCY MANAGEMENT PLAN (CEMP)

Outlines requirements for creation of a comprehensive emergency management plan by each PSAP.

09 NCAC 06C .0216 ASSESSING PSAP OPERATIONS

Outlines procedures to be followed by the 911 Board when conducting assessments of PSAPs.

09 NCAC 06C .0111 is proposed for adoption as follows:

09 NCAC 06C .0111 REQUESTS FOR DECLARATORY RULINGS

(a) Requests for a declaratory ruling shall be in writing and dated.

(b) The request shall contain:

- (1) The petitioner's name, address, and telephone number;
- (2) The rule, statute, or order referred to;
- (3) A statement of facts supporting the petitioner's request for a declaratory ruling;
- (4) A statement of the manner in which the petitioner is aggrieved by the rule, statute, or standard, or its potential application to the petitioner;

(c) After review of the information required in (b) of this Rule, the Board may request the following additional information:

- (1) A statement of any legal authorities that support the interpretation of the given the statute or rule by the petitioner;
- (2) A statement of the practices or procedures likely to be affected by the requested declaratory ruling and the persons likely to be affected by the ruling;
- (3) A draft of the declaratory ruling sought by the petitioner, if a specified outcome is sought by the petitioner; and
- (4) A statement of whether the petitioner desires to present oral argument.

History Note: Authority G.S. 62A-42; 150B-4;
Eff. July 1, 2016.

09 NCAC 06C .0112 is proposed for adoption as follows:

09 NCAC 06C .0112 RESPONSE TO A REQUEST FOR A DECLARATORY RULING

(a) The Board shall consider the request within 30 days of receipt. The Board shall issue a ruling except:

- (1) When the Board finds that the person making the request is not a "person aggrieved," as defined in G.S. 150B-2(6);
- (2) When the petition does not provide the information required in Rule .0111, the question is presented in such a manner that the Board cannot determine what the question is, or that the Board cannot respond with a specific ruling that shall be binding on all parties;
- (3) When the Board has made a determination in a similar contested case, or where the factual context being raised for a declaratory ruling was specifically considered upon the adoption of the rule or directive being questioned, as evidenced by the rulemaking record; or
- (4) Where the subject matter of the request is involved in pending litigation or contested case in any state or federal court in North Carolina.

(b) The Board shall, not later than the 30th day after receiving such a request, deposit in the United States mail, postage prepaid, a written statement addressed to the person making the request and setting forth the ruling on the merits of the request for a declaratory ruling, or setting forth the reason the ruling was not made, as the case may be. The Board may gather additional information, may give notice to other persons and may permit such other persons to submit information or arguments under such conditions as are set forth in any notice given to the requesting party.

History Note: Authority G.S. 62A-42; 150B-4;
Eff. July 1, 2016.

09 NCAC 06C .0113 is proposed for adoption as follows:

09 NCAC 06C .0113 DURATION OF A DECLARATORY RULING

For purposes of this Section, a declaratory ruling shall be deemed to be in effect until:

- (1) The portion of the statute, rule, or order interpreted by the declaratory ruling is amended or repealed;
- (2) The Board changes the declaratory ruling prospectively; or
- (3) Any court sets aside the ruling.

History Note: Authority G.S. 62A-42; 150B-4(a);
Eff. July 1, 2016.

09 NCAC 06C .0114 is proposed for adoption as follows:

09 NCAC 06C .0114 RECORD OF RULING

A record of all declaratory ruling proceedings shall be maintained at the Board's office and shall be available for public inspection during business hours.

History Note: Authority G.S. 62A-42; 150B-4;
Eff. July 1, 2016.

09 NCAC 06C .0205 is proposed for adoption as follows:

09 NCAC 06C .0205 COMPREHENSIVE EMERGENCY MANAGEMENT PLAN (CEMP)

(a) Each PSAP shall have a written Comprehensive Emergency Management Plan (CEMP) that includes:

- (1) An emergency fire plan;
- (2) A damage control plan; and
- (3) A back-up PSAP plan that includes alternate 911 call routing conforming to 47 C.F.R. 20.18 and G.S. 62A-49.

(b) The PSAP shall test the plans in Paragraph (a) of this Rule and the CEMP at least once annually.

History Note: Authority G.S. 62A-42; 62A-46; 47 C.F.R. 20.18;
Eff. July 1, 2016.

09 NCAC 06C .0216 is proposed for adoption as follows:

09 NCAC 06C .0216 ASSESSING PSAP OPERATIONS

- (a) The Board shall conduct annual reviews of PSAP operations to determine whether a PSAP meets Section .0200 of these Rules. Reviews shall be conducted by at least two persons selected by the Board based on each person's knowledge and experience of 911 systems and PSAP operations. The Board shall provide notice to a PSAP at least 90 days in advance of a review. The notice shall include the scope of the review and shall identify the reviewers.
- (b) A written report shall be provided to a PSAP within 30 days of the date of review. The report shall state any deficiencies that identify a failure to fulfill Section .0200 of these Rules.
- (c) The report shall include procedures and recommendations to remediate deficiencies. PSAPs shall respond to the report no more than 30 days following receipt and identify actions taken or planned to remediate deficiencies.
- (d) Notwithstanding the annual review in (a) of this Rule, a PSAP having no deficiencies or remediating deficiencies identified within 30 days of the report delivery date shall not be subject to review for three years.

History Note: Authority G.S. 62A-42(a)(4); 62A-42(a)(5);
Eff. July 1, 2016.

911 Funding Committee Report **Jason Barbour**

911 Funding Committee Report **Jason Barbour**

a) Funding Reconsideration Request

ii. Guilford-Metro 911

(vote required)



Guilford Metro 9-1-1
Consolidated Communications



February 18, 2016

Marsha Tapler
Financial Analyst, N.C. 911 Board
P.O. Box 17209
Raleigh, NC 27619

Dear Ms. Tapler,

I want to thank you and the 911 Board for the opportunity to present our information for funding reconsideration in the upcoming fiscal year. As the 911 Board staff is aware, Guilford Metro 911 maintains a primary and back up site. We have been following our Strategic Technology Replacement plan to update and upgrade our equipment since 2011. Our justification and responses to your questions are attached to this document. Should you have any questions, please feel free to call Sandy Land at 336-373-2231, sandy.land@greensboro-nc.gov, Melanie Neal at 336-373-2646, Melanie.neal@greensboro-nc.gov, or Glenn Lamb at 336-373-7615, glenn.lamb@greensboro-nc.gov.

Thank you in advance for your consideration of our funding request.

Melanie Neal, Director
Guilford Metro 911
1201 Coliseum Blvd
Greensboro NC 27403

The new funding model is based upon actual expenses: please explain why do you need additional expenses?

Historical expenses have not entirely taken into account new eligible items approved over the last several years. GM 911 began a Strategic Technology Replacement Plan in 2011 in order to maintain an appropriate equipment refresh cycle. The funding reconsideration approved in FY 14/15 and the use of our fund balance has helped us make tremendous strides on equipment replacement. However, our funding distribution from the State 911 Board based on our 5 year average has not met our annual expenses.

If your requests are based upon capital expenditures for the next year, have you considered a grant from the 911 Board for the program?

We are not anticipating a grant at this time since all items are recurring expenses and will allow us to continue to refresh our technology into the future in a timely manner.

Please explain how the additional funding will improve your efficiency for delivering 911 services.

The funding reconsideration approved in FY 14/15 helped us make tremendous strides on equipment replacement. One example of increased efficiency is our ACD module installation as part of our new CPE equipment. Due to the ACD implementation, our former 911 answering rate of 93% within 10 seconds is now 99% within 10 seconds.

Please explain in detail how the current fund balance will be used to offset increases in expenses.

GM911 has already been using our fund balance to offset increases in expenses. In FY15-16 our fund balance will be reduced by \$1,108,411.

It may take a few more years of funding reconsideration to get our fund baseline at the appropriate level while we continue to upgrade our legacy equipment per our Strategic Technology Replacement Plan which was discussed with 911 Board staff.

North Carolina 911 Board

PSAP Name:	y of Greensboro Guilford Metro C		
Contact Name:	Sandy Land,	Melanie Neal, Glenn Lamb	
Contact Address:	1201 Coliseum Blvd		
City:	Greensboro		
Zip:	27403		
Contact Email:	sandy.land@greensboro-nc.gov		
Melanie.neal@greensboro-nc.gov		Glenn.Lamb@greensboro-nc.gov	

Instructions: All requests for review of PSAP Distribution amount must use this form with each request. Please do not change block descriptors, formulas or formatting. *PLEASE SEE INSTRUCTIONS tab for further details*** All requests must be filed with the NC 911 Board no later than February 19, 2016.** Email this form and all supporting documentation to marsha.tapler@nc.gov. If you have questions regarding this form or filing a request, please call Marsha Tapler at 919-754-6344 or email at marsha.tapler@nc.gov.

June 30, 2015 Emergency Telephone System Fund Balance: \$1,424,453.94

Expenditure	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring <u>MONTHLY</u> Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
Phone Systems - Furniture				
Selective Rtnng/ALI Prov 9-1-1 trk line charges	352,000.06			
Basic line charge only **One administrative line per call-taking position	4,560.00			

Interpretive Services	15,879.12			
Data Connections for the sole purpose of collecting call information for analysis. If connections is shared with non-eligible 911 device, only a percentage is eligible.				
MPLS-Fiber used for backup PSAPs connections				
Automatic Call Distribution System				
911 telephone equipment (CPE, etc.)	346,205.13			
TDD/TTY				
Furniture: Cabinets, tables, desks which hold 911 equipment	5,500.00			
TOTAL	\$724,144.31	\$0.00	\$0.00	\$0.00

	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring MONTHLY Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
SOFTWARE				
CAD (modules that are part of the call-taking process only)				
GIS (to create and display the base map showing street centerlines and address, address point layer)				
Message switch software **must meet requirements noted in Approved Use of Funds list.				
MCT Digital Voiceless Dispatch Licensing **Allowable for Dispatched Protocols Law, Fire & EMS.	212,980.00			95,791.00
Voice Logging Recorder				
MIS for 9-1-1 phone system				

Increase in annual maintenance for Mobile Client and Freedom Application for Voiceless Dispatch. Previously submitted and approved item for Funding Reconsideration in FY14-15. Distribution hasn't caught up to spending level. Sungard invoice for purchase of additional licenses was submitted and approved in the FY14-15 Expenditure report. Sungard quotes for additional maintenance incurred from purchasing additional licenses attached.

Time Synchronization				
Dispatch Protocols (Law, Fire, Medical)	2,010.00			
Quality Assurance for Protocols				
ALI Database software	24,580.31			
Software Licensing	4,113.48			
Radio console software. Some Radio console software will include many additional modules that are not a part of the 911 process and are not eligible.				
Console Audio Box (CAB) software				
Paging software (to send call from CAD to first responder pager or mobile phone)	745.00			
Computer Aided Dispatch (CAD) to Computer Aided Dispatch (CAD) interface software (sending CAD info to another PSAP for dispatch)				
Automated digital voice dispatching software	33,040.00			
Software MAINTENANCE	459,239.68			
TOTAL	\$736,708.47	\$0.00	\$0.00	\$95,791.00

	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring MONTHLY Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
HARDWARE				
CAD server				
GIS server				
911 Phone server				
Voice logging server				
Monitors				
Computer Workstations	110,219.29			
Time Synchronization				
UPS	16,748.52		3,350.00	

UPS contract with Duke Energy.Previously submitted and approved item for Funding Reconsideration in FY14-15. Distribution hasn’t caught up to spending level. Current invoice attached.

Generator	7,600.00		12,589.00	
Call Detail Record Printer (automatically captures incoming 911 telephone call data)				
Radio Network Switching Equipment used exclusively for PSAP's Radio Dispatch Consoles (i.e.: CEB, IMC, NSS)	302,242.16		15,453.80	261,722.89
Fax Modem (for rip & run)				
Printers (CAD, CDR, Reports, etc.)				
Radio Console Dispatch Workstations				
Radio Console Ethernet Switch				
Radio Console Access Router				
Back Up Storage Equipment for 911 Data Base Systems				
Mobile Message Switch				
Paging Interface With Computer Aided Dispatch (CAD) system				
Alpha / Numeric Pager Tone Generator				
Radio Consolette **as defined in Approved Use of Funds List				
Handheld GPS devices that are used strictly for 911 addressing **as defined in Approved Use of Funds List.	4,069.98			
Hosted Solutions:**Must be approved by 911 Staff prior to reporting.	48,540.98		12,752.62	
Hardware MAINTENANCE	717,152.76			
TOTAL	\$1,206,573.69	\$0.00	\$44,145.42	\$261,722.89

Generator contract with Duke Engergy. Previously submitted and approved item for Funding Reconsideration in FY14-15. Distribution hasn't caught up to spending level. Current invoice attached.

- 1) \$15,453.60 monthly recurring cost: Arista lease began in November 2015. Quotes approved for eligible expenses by Marsha Tapler on 9/16/2015. Email attached.
- 2) \$302,242.16 Annual recurring cost: Motorola Contract for Radio Communication Console Lease. Previously submitted and approved item for Funding Reconsideration in FY14-15. Distribution hasn't caught up to spending level.Contract submitted with FY14-15 Expenditure report. Current invoice attached.



Attached ePlus quote 21782123 for Hosted Storage to retain Backups & Regional Efforts. Approved by Marsha Tapler on 2/5/2016. ePlus quote and approval email attached. Quote does not include interest or leasng fees. This figure is subject to change based on the leasing document/terms. Three year leasing contract is being negotiated for leasing to begin in July 2016.

Training Expenditures Total	\$17,574.00	\$0.00	\$0.00
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IMPLEMENTAL FUNCTIONS

Database Provisioning for 911	50,951.31		
Addressing for 911			
TOTAL	\$50,951.31	\$0.00	\$0.00

Total FY2015 Expenditures
 \$2,735,951.78

To be completed by 911 Board Staff:

PROPOSED FY2016 FUNDING	\$2,104,094.86
FY2017 Anticipated Capital Expenditures	0.00
FY2017 Anticipated Monthly Recurring	529,745.04
FY2017 Anticipated Annual Recurring	357,513.89
Requested FY2017 Funding	\$2,991,353.79

Total requested to be approved:
 \$2,991,353.79

Approved FY2017 20% Carry forward amount:
 \$536,811.00

From: [Land, Sandy](#)
To: [Tapler, Marsha](#)
Cc: [Neal, Melanie](#); [Lamb, Glenn](#)
Subject: FY2017_PSAP_Distribution_Reconsideration_Request.xlsx
Date: Friday, February 19, 2016 2:38:33 PM
Attachments: [FW Network Equipment Replacement.msg](#)
[FW Network Equipment Replacement.msg](#)
[Hosted - Backup"sRegional EffortDisaster Recovery.msg](#)
[SunGard MCTFreedom.msg](#)
[RE Hosted - Backup"sRegional EffortDisaster Recovery.msg](#)
[fundingreconsiderationletter2016.pdf](#)
[FY2017_PSAP_Distribution_Reconsideration_RequestFinal.xlsx](#)

Marsha,

Attached is Guilford Metro 911's FY16-17 PSAP Distribution Reconsideration Request, justification letter and supporting documentation.

In this current FY we are using \$1,108,411 of our fund balance. We are requesting the distribution reconsideration mostly for continuation of a previous funding reconsideration approval. Please let me know if I need to resubmit the documentation for the items that have been previously approved.

If you have any questions or need additional information, please contact me at the number below, Melanie Neal at 336-373-2646, or Glenn Lamb at 336.373.7615.

Thank you,

Sandy Land, IPMA-CP
Guilford Metro 911
336.373.2231

=====
Please note that email sent to and from this address is subject
to the North Carolina Public Records Law and may be disclosed to third parties.

From: [Land, Sandy](#)
To: [Tapler, Marsha](#)
Subject: RE: Revenue-Expenditure Report - Reconsideration
Date: Thursday, March 31, 2016 9:47:39 AM
Attachments: [image001.png](#)
[EQUIPMENT LIST PRICING GSO MCC7500 3-14-16.xlsx](#)
[Pages from fundingreconderationdoc2.pdf](#)
Importance: High

Good morning Marsha,

Attached is the spreadsheet with the cost extended out. The total lease is \$2,115,695.12 payable over 7 years at an annual payment of \$302,242.16.

The equipment portion of the lease is \$1,336,928.93. The installation portion of the lease is \$427,913.07.

The total system cost is \$1,764,842.

The lease terms are included in the proposal that was included in our approved FY15 PSAP Distribution Reconsideration Request (attached).

The difference between the total system cost and the total contract cost is interest.

Please let me know if have any questions.

Thanks.

Sandy Land, IPMA-CP
Guilford Metro 911
336.373.2231

From: Tapler, Marsha [mailto:marsha.tapler@nc.gov]
Sent: Wednesday, March 30, 2016 1:01 PM
To: Land, Sandy
Subject: Revenue-Expenditure Report - Reconsideration

Afternoon Sandy,

I must complete everything by lunch tomorrow or the reconsideration will not be forwarded to the committee for approval Tuesday. Please let me know what you need from me to assist in the completion.

Thank you,

Marsha

*Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov*

From: [Lamb, Glenn](#)
To: [Tapler, Marsha](#)
Subject: FW: Network Equipment Replacement
Attachments: [image001.jpg](#)
[image003.jpg](#)
[image004.jpg](#)
[COG-GM-PROSERV-Quote.pdf](#)
[COG-GM-JUSTICE-Quote.pdf](#)
[COG-GM-MAPLE-Quote.pdf](#)
[COG-GM-MEADOWOOD-Quote.pdf](#)
[COG-GM-SPRING-Quote.pdf](#)
[COG-GM-WESTR-Quote.pdf](#)
[COG-MMOB-L3-Quote.pdf](#)
[COG-MMOB-A-DIST-Quote.pdf](#)
[COG_NetworkDesign.pdf](#)
[IMG_1851.JPG](#)
[IMG_1853.JPG](#)
[IMG_1857.JPG](#)
[IMG_1845.JPG](#)
[IMG_1849.JPG](#)

Marsha,

Here's the original request.

Thanks,

Glenn Lamb
Support Services Manager
glenn.lamb@greensboro-nc.gov
Guilford Metro 9-1-1
P.O. Box 3136
Greensboro, North Carolina 27402
Office: 336-373-7615
Cell: 336-337-7896

From: Lamb, Glenn
Sent: Wednesday, June 03, 2015 6:59 PM
To: Tapler, Marsha
Subject: Network Equipment Replacement

Marsha,

It's time to replace/upgrade our well aged network equipment and routers. In reviewing these devices they range between 8 to 13 years in age and we are starting to have issues with these devices providing reliable 911 services. Currently these switches/routers allow CAD, Radio, and Phone workstations to all communicate between the servers and consoles via the network cables. Without these we could not receive 911 calls at the console, talk/dispatch/alert across the radio or be able to enter a CAD record. In addition these devices supply our network connectivity from our Primary PSAP to our Backup and allow for CAD to CAD (C2C) transmissions with 4 other primary agencies (High Point 911, Alamance 911, Davidson 911, Rockingham 911). Recently (05/21/2015) we experienced a total outage of our backup facility due to an automobile accident in which a utility pole supplying our fiber was destroyed (see attached photos). This single fiber optic connection allows for 911 Phones (CPE's), backups, Hosted Replication, C2C, CAD, Regional PSAP access, etc. to sync our data and allow for the backup center to operate. During this event we identified that we currently don't have a secondary and/or tertiary route for connectivity to the backup facility.

Fortunately we have our own alternative fiber pathways but will need to set the equipment in place to provide a redundant path to alleviate having this issue in the future. Below is a break out of the equipment, services, and PSAP network diagram.

Based on the below eligible listing, we assume these would fall under this category based on purchases in the past/current listed items?

Radio Network Switching Equipment used exclusively for PSAP's Radio Dispatch Consoles
(i.e.: CEB, IMC, NSS) (September 10, 2010)
Radio Console Ethernet Switch (September 10, 2010)
Radio Console Access Router (September 10, 2010)
Back Up Storage Equipment for 911 Data Base Systems (September 10, 2010)

GM911 Network Diagram:

COG_NetworkDesign.pdf

Network Services & Instillation:

COG-GM-PROSERV-Quote.pdf

Primary Network Equipment:

COG-MMOB-A-DIST-Quote.pdf

COG-MMOB-L3-Quote.pdf

COG-GM-JUSTICE-Quote.pdf

COG-GM-MAPLE-Quote.pdf

Backup Network Equipment:

COG-GM-MEADOWOOD-Quote.pdf

COG-GM-WESTR-Quote.pdf

COG-GM-SPRING-Quote.pdf

Tertiary Network Equipment:

At some point we would quote out a wireless network connection for failover between our facilities as a tertiary path.

Photos:

Our single fiber optic feed between the primary and backup 911 centers was taking out in a residential neighborhood due to an automobile accident. The attached pictures show this damage as well brought to our attention that these fiber lines are susceptible to power outages which could take down the network due to extensive inclement weather. We would like to research and see if a tertiary wireless connection could supply this redundant link at some point.

IMG_1845.JPG

IMG_1849.JPG

IMG_1851.JPG

From: Tapler, Marsha
To: ["melanie.neal@greensboro-nc.gov"](mailto:melanie.neal@greensboro-nc.gov); [Land, Sandy \(Sandy.Land@greensboro-nc.gov\)](mailto:Sandy.Land@greensboro-nc.gov)
Cc: [Lamb, Glenn \(Glenn.Lamb@greensboro-nc.gov\)](mailto:Glenn.Lamb@greensboro-nc.gov); Taylor, Richard
Subject: Greensboro FY2017 Funding Reconsideration
Date: Tuesday, February 23, 2016 10:50:00 AM
Attachments: [image001.png](#)

Good morning Melanie and Sandy,

After reviewing the documentation for Greensboro's funding reconsideration, I was not able to locate the time line information (noted below) so, please send. In addition, any request for additional funding for the expenses stating "continuation of a previous funding reconsideration" would require updated justification by current invoicing. I unable use documentation dated March 2014 or notes as documented in the currently received reconsideration request. If you have questions, let me know.

6. Complete time line of completion for capital expenses.

Thanks,

Marsha

Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov

cid:image001.png@01D0F624.71363D60



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

SUNGARD® PUBLIC SECTOR

May 12, 2014

Glenn Lamb
Support Services Manager
Guilford Metro 911
P.O. Box 3136
Greensboro, NC 27402

Dear Glenn,

As a part of SunGard Public Sector's appreciation of our partnership with Guilford Metro 911, we are pleased to present you with an Enterprise license of Mobile Computing, and an Enterprise license of ONESolution Freedom. SunGard Public Sector is the sole source for all products and services for this upgrade.

If you need additional information or have any questions, please contact me at 336-878-1206.

Sincerely,



Amy Shultz
Client Success Executive
SunGard Public Sector

SUNGARD® PUBLIC SECTOR

Add-On Quote

Date	Quote #	Acct Mgr
05/13/14	AZPSQ1764	Amy Shultz

Quote Prepared For:

Guilford Metro 911, NC
Glenn Lamb
1201 Colliseum Blvd.
Greensboro, NC 27402
Phone: 336-373-7615

The proposal is limited to upgrading to an Enterprise license for the following agencies:

Greensboro Police
Greensboro Fire Department
Guilford County Sheriff's Office
Guilford County EMS
Summerfield Fire
Colfax Fire

Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
Upgrade to Enterprise MCT for Greensboro Police, Guilford County Sheriff's Office, Guilford County EMS, Greensboro Fire, Summerfield Fire, and Colfax Fire					
1	MCT-CLIENT	UPGRADE MCT CLIENT - DIGITAL DISPATCH TO ENTERPRISE LICENSE Workstation license for the application software for the mobile unit allows the unit to receive and transmit digital (silent) dispatching, car-to-car and car-to-console messaging, premises and call information, magstripe reading (where available). Any additional hardware must be purchased separately.	\$175,000.00	\$175,000.00	\$28,000.00
			SubTotal:	\$175,000.00	
Enterprise ONESolution Freedom					
1	MCT-FREEDOM-PREM IUM	MCT FREEDOM ENTERPRISE LICENSE Freedom delivers the power of SunGard Public Sector's OneSolution Public Safety Software to smartphones and tablets. Freedom is a mobile HTML5 application designed to be platform independent. Supported platforms include IOS, Android, and Windows. Freedom Base extends core OSSI Mobile Dispatch functionality onto the mobile phone or tablets of authorized Agency employees. Accessible anywhere in the field with a 3G signal or better, Freedom Base provides key MCT functions. Freedom is designed to give you the ability of voiceless dispatch and messaging to be used on tablets and smartphones.	\$32,500.00	\$32,500.00	\$9,750.00

Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
1	MCT-PROJ-MGNT	PROJECT MANAGEMENT SERVICES Includes professional services from SunGard for management oversight and coordination with the Customer's project management, SunGard's internal resources and any third party vendors. Includes coordinating with the Customer's Project Manager all SunGard related deliveries such as application software, implementation services, and scheduling of SunGard's resources with the Customer.	\$1,280.00	\$1,280.00	\$0.00
1	MCT-PROF-ADD	ADDITIONAL PROFESSIONAL SERVICES-IMPLEMENTATION SERVICES Services provided by SunGard product or training specialists. Services may include, but are not limited to, add-on module training, refresher training, system analysis, or consulting.	\$4,200.00	\$4,200.00	\$0.00
SubTotal:				\$37,980.00	
Total:				\$212,980.00	\$37,750.00

This quote is valid until 07/11/14

To accept this quote, please fax a signed copy of the quote to Amy Shultz at 407-304-4226.

Please call me at 336-885-0911 if I can be of further assistance or if you have any questions.

Thank you,
Amy Shultz
Customer Account Executive

This Quote constitutes a Supplement to the Contract and Agreement by and between the parties hereto. Except as otherwise provided herein, all terms and conditions of the Contract and Agreement shall remain in full force and effect. As applicable for certain customers, the term "Contract and Agreement" is defined as the Software License & Services Agreement and the License Program Support Agreement between the parties hereto.

Should Customer terminate this agreement per the "Term of Contract" Section of the Contract and Agreement, the Customer agrees to pay, immediately upon termination, the remaining balance for all hardware, software, and services delivered prior to the termination date together with travel reimbursements, if any, related to the foregoing. Notwithstanding any language in the Contract and Agreement to the contrary, the purchase of support services is NOT necessary for the continuation of Customer's License.

Licensed Program(s) are provided in and may be used in machine-readable object code form only. SunGard Public Sector offers the Customer, through a third party escrow agent, a Source Code Escrow Agreement that provides for release of the source code version of the Licensed Program(s) from escrow upon the occurrence of certain release events, such as SunGard Public Sector's failure to provide required maintenance services as agreed.

Applicable taxes are not included, and, if applicable, will be added to the amount in the payment of invoice(s) being sent separately. Travel and living expenses are in addition to the prices quoted above and shall be governed by the SunGard Public Sector Corporate Travel and Expense Reimbursement Policy.

The SunGard Public Sector application software warranty shall be for a period of one (1) year after Delivery. There is no Testing and Acceptance period on the Licensed Program(s) herein.

Any interfaces listed above are interfaces only. Customer shall be responsible for obtaining the applicable software, hardware and system software from the appropriate third party vendor.

Preprinted conditions and all other terms not included in this Quote or in the Contract and Agreement, stated on any purchase order or other document submitted hereafter by Customer are of no force or effect, and the terms and conditions of the Contract and Agreement and any amendments thereto shall control unless expressly accepted in writing by SunGard Public Sector to Customer.

Third party hardware/software maintenance and/or warranty will be provided by the third party hardware and software manufacturer(s). SunGard Public Sector makes no representations as to expected performance, suitability, or the satisfaction of Customer's requirements with respect to the hardware or other third party products specified in this Quote. The return and refund policy of each individual third party hardware/software supplier shall apply.

This Agreement is based on the current licensing policies of each third party software manufacturer as well as all hardware manufacturers. In the event that a manufacturer changes any of these respective policies or prices, SunGard Public Sector reserves the right to adjust this proposal to reflect those changes.

This Quote shall be effective notwithstanding any provisions as to non-availability of funds contained in the Contract and Agreement.

The date of delivery is the date on which SunGard Public Sector delivers, F.O.B. SunGard Public Sector's place of shipment, the Licensed Program(s) to Customer.

For training and on-site project management sessions which are cancelled at the request of Customer within fourteen (14) days of the scheduled start date, Customer is responsible for entire price of the training or on-site project management plus incurred expenses.

Payment Terms are as Follows:

License, Project Management, Hardware and Third Party Software Fees are due upon execution of this Quote. Installation is due upon completion. Custom Modifications, Development, Conversion, Hardware and Third Party Software Implementation is due 50% on execution of this Quote, and 50% due upon invoice, upon completion. Unless otherwise provided, other Professional Services are due monthly, as such services are delivered. Additional services, if requested, will be invoiced at then-current rates. Training and Travel/Living expenses are due as incurred monthly. Any shipping charges shown are estimated only - actual shipping charges will be due upon delivery.

SunGard Public Sector Application Annual Support - the initial term of Maintenance and Support Services is included in License Fees and begins upon execution of this Quote and extends for a twelve (12) month period. Subsequent terms of support will be for twelve (12) month periods, commencing at the end of the initial support period. Support fees shown for the second term of support shall be due prior to the start of that term. Fees for subsequent terms of support will be due prior to the start of that term at the then prevailing rate. Third Party Application Annual Support Fees - payment terms shall be as provided by the Third Party to Customer with the exception that any fees listed above for the initial term of support are due upon execution of this Quote.

Accepted:

Guilford Metro 911, NC

Signature

Date

Printed Name

SUNGARD® PUBLIC SECTOR

Add-On Quote

Date	Quote #	Acct Mgr
05/13/14	AZPSQ1765	Amy Shultz

Quote Prepared For:

Guilford Metro 911, NC
Glenn Lamb
1201 Colliseum Blvd.
Greensboro, NC 27402
Phone: 336-373-7615

Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
1	MCT-CLIENT-MAINT	MCT CLIENT - DIGITAL DISPATCH- CURRENT MCT MAINTENANCE FOR GREENSBORO POLICE AND GUILFORD COUNTY SHERIFF'S OFFICE Workstation license for the application software for the mobile unit allows the unit to receive and transmit digital (silent) dispatching, car-to-car and car-to-console messaging, premises and call information, magstripe reading (where available). Any additional hardware must be purchased separately.	\$58,041.00	\$58,041.00	\$58,041.00

This quote is valid until 07/11/14

Total:	\$58,041.00	\$58,041.00
--------	-------------	-------------

To accept this quote, please fax a signed copy of the quote to Amy Shultz at 407-304-4226.

Please call me at 336-885-0911 if I can be of further assistance or if you have any questions.

Thank you,
Amy Shultz
Customer Account Executive

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Licensed Program(s) are provided in and may be used in machine-readable object code form only. SunGard Public Sector offers the Customer, through a third party escrow agent, a Source Code Escrow Agreement that provides for release of the source code version of the Licensed Program(s) from escrow upon the occurrence of certain release events, such as SunGard Public Sector's failure to provide required maintenance services as agreed.

Applicable taxes are not included, and, if applicable, will be added to the amount in the payment of invoice(s) being sent separately. Travel and living expenses are in addition to the prices quoted above and shall be governed by the SunGard Public Sector Corporate Travel and Expense Reimbursement Policy.

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Preprinted conditions and all other terms not included in this Quote or in the Contract and Agreement, stated on any purchase order or other document submitted hereafter by Customer are of no force or effect, and the terms and conditions of the Contract and Agreement and any amendments thereto shall control unless expressly accepted in writing by SunGard Public Sector to Customer.

Third party hardware/software maintenance and/or warranty will be provided by the third party hardware and software manufacturer(s). SunGard Public Sector makes no representations as to expected performance, suitability, or the satisfaction of Customer's requirements with respect to the hardware or other third party products specified in this Quote. The return and refund policy of each individual third party hardware/software supplier shall apply.

This Agreement is based on the current licensing policies of each third party software manufacturer as well as all hardware manufacturers. In the event that a manufacturer changes any of these respective policies or prices, SunGard Public Sector reserves the right to adjust this proposal to reflect those changes.

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SunGard Public Sector Application Annual Support - the initial term of Maintenance and Support Services is included in License Fees and begins upon execution of this Quote and extends for a twelve (12) month period. Subsequent terms of support will be for twelve (12) month periods, commencing at the end of the initial support period. Support fees shown for the second term of support shall be due prior to the start of that term. Fees for subsequent terms of support will be due prior to the start of that term at the then prevailing rate. Third Party Application Annual Support Fees - payment terms shall be as provided by the Third Party to Customer with the exception that any fees listed above for the initial term of support are due upon execution of this Quote.

Accepted:

Guilford Metro 911, NC

Signature

Date

Printed Name

A15-00592



Contract Routing Control Sheet

Guilford Metro 911

Contact: Susan Crotts Phone: 4389

Memo of Understanding

Tracking#: 9202 Date Submitted: 1/23/2015 Date Needed: 1/28/2015
 Contract#: 2015-10263 Date Started: 1/1/2015 Est End Date: 12/31/2016
 Coliseum#: Change Order#: Lease#: Bid#: ☐
 Requisition#: 010-15 NCDOT#: Resolution#: Email For Pickup: ☒ Rush: ☐
 Description: Inerlocal Agmt for use of backup location facilities
 Comments: MOU between GM911, Guilford County and HP911 GC Contract # 00061-03/15-264

Vendor:	Guilford County	Account #	CBR	Amount
Vendor#:	577			
Location:	Finance Department PO Box 3427 Greensboro, NC 27402-3427		Total:	



Signatures

<input checked="" type="checkbox"/> Dept Director	Reviewed By: <u>Melanie A. Neal</u>	Date: <u>4/21/15</u>
<input checked="" type="checkbox"/> Finance	Reviewed By: <u>[Signature]</u>	Date: <u>RECEIVED APR 22 2015</u>
<input checked="" type="checkbox"/> Accounting	Reviewed By: <u>[Signature]</u>	Date: <u>4-22-15</u>
<input checked="" type="checkbox"/> Attorney	Reviewed By: <u>[Signature]</u>	Date: <u>4-28-15</u>
<input checked="" type="checkbox"/> City Manager	Reviewed By: <u>[Signature]</u>	Date: <u>4-27-15</u>
<input type="checkbox"/> Mayor	Reviewed By: _____	Date: _____
<input checked="" type="checkbox"/> City Clerk	Attested By: <u>[Signature]</u>	Date: <u>4-30-15</u>
<input type="checkbox"/> Purchasing	Reviewed By: _____	Date: _____
<input checked="" type="checkbox"/> CCD	Reviewed By: <u>[Signature]</u>	Date: <u>4/21/15</u>

RECEIVED

APR 29 2015

City Manager's Office

RECEIVED

APR 30 2015

City Clerk's Office



April 21, 2015

To: Wesley Reid, Assistant City Manager

From: Susan E. Crotts, Centralized Contracting Division and Grants Manager *Set*

Subject: Authorization for Memorandum of Understanding between Guilford Metro 911
Guilford County and City of High Point to Establish Back Up Locations for
Operations Centers

The Greensboro City Council approved a resolution authorizing a Memorandum of Understanding, Contract #2014-10228, between Guilford Metro 911, Guilford County, and High Point 911 to Establish Back Up Locations for Operations Centers on 1/20/2015. A copy of the resolution is attached.

The purpose of this Memorandum of Understanding (MOU) is to establish a formal arrangement whereby Guilford-Metro makes available to High Point 911 its backup 911 center for use by High Point 911 during such times as High Point 911 may experience failure to its primary 911 emergency call and dispatch center subject to the terms of this MOU. There may also be events within the High Point area that necessitate relocation to the City's back up site for use as an incident command center or for routine practice of back up procedures.

Guilford-Metro 911 has developed, funded, organized, and equipped a backup 911 communications center which can be utilized immediately to receive and process 911 emergency calls in the event its primary emergency communications center is disabled. The City of High Point desires also to maintain a backup 911 center, and recognizes the economic benefits of utilizing Guilford-Metro's backup 911 center. Guilford-Metro 911 agreed with Guilford County to cost sharing for the facility space in the original consolidation agreement and addendums. No charges will be assessed unless there is a need for use of the backup facility.

The attached MOU establishes the terms by which High Point 911 may utilize the COUNTY facility that is operated by Guilford-Metro 911 as its backup 911 center for the benefit of the citizens of the City of High Point. Responsibilities of Guilford-Metro 911, Guilford County and High Point are outlined in the agreement. The MOU is for one year, to renew automatically each year until the arrangement is amended or terminated or until this MOU is superseded by a new MOU between the parties.

SC/ Attachments

ID 15-0031
010-15

RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A MEMORANDUM OF UNDERSTANDING, CONTRACT, #2014-10228, WITH THE CITY OF HIGH POINT AND GUILFORD COUNTY FOR USE OF BACK UP 911 CENTER FACILITIES

WHEREAS, the purpose of this MOU is to establish a formal arrangement whereby Guilford-Metro makes available to High Point 911 its backup 911 center located in Greensboro, North Carolina, for use by High Point 911 during such times as High Point 911 may experience failure to its primary 911 emergency call and dispatch center subject to the terms of this MOU; and

WHEREAS, both Guilford-Metro 911 and High Point 911 operate 911 emergency communications systems; and

WHEREAS, GM911 and the COUNTY have entered into an agreement for 911 services that allowed the development of a back up 911 center at the COUNTY's Meadowood facility; and

WHEREAS, during times of natural disaster and other unpredictable events, a 911 Center's system may be temporarily disabled; and

WHEREAS, Guilford-Metro 911 has developed, funded, organized, and equipped a backup 911 communications center which can be utilized immediately to receive and process 911 emergency calls in the event its primary emergency communications center is disabled; and

WHEREAS, the CITY of HIGH POINT desires also to maintain a backup 911 center, and recognizes the economic benefits of utilizing Guilford-Metro's backup 911 center; and


WHEREAS, the parties desire to set forth in an MOU the terms by which High Point 911 may utilize the COUNTY facility that is operated by Guilford-Metro 911 as its backup 911 center for the benefit of the citizens of the City of High Point; and

WHEREAS the parties pursuant to the authority of Chapter 160A, Article 20, Section 461 *et seq.* of the North Carolina General Statutes are authorized to enter into this Interlocal Agreement in order to pursue the above stated goals;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GREENSBORO:

That the request to approve the Memorandum of Understanding, Contract #2014-10228 between Guilford County, the City of Greensboro and City of High Point is hereby approved.

THE FOREGOING RESOLUTION WAS ADOPTED
BY THE CITY COUNCIL OF THE CITY OF
GREENSBORO ON THE 20TH DAY
OF JANUARY, 2015.


CITY CLERK

APPROVED AS TO FORM


CITY ATTORNEY

9202

NORTH CAROLINA

GUILFORD COUNTY

**Memorandum of Understanding between
Guilford-Metro 911, Guilford County, and High Point 911**

This Memorandum of Understanding (MOU) made and entered into by and between the City of Greensboro, on behalf of its Emergency Communications Division, also known as Guilford-Metro 911 (hereafter referred to as "GM911"), Guilford County, on behalf of its Emergency Services (hereafter referred to as "COUNTY") and the City of High Point, on behalf of its Emergency 911 Center (hereafter referred to as "CITY of HIGH POINT").

WITNESSETH:

WHEREAS, both Guilford-Metro 911 and High Point 911 operate 911 emergency communications systems; and

WHEREAS, GM911 and the COUNTY have entered into an agreement for 911 services that allowed the development of a back up 911 center at the COUNTY's Meadowood facility; and

WHEREAS, during times of natural disaster and other unpredictable events, a 911 Center's system may be temporarily disabled; and

WHEREAS, Guilford-Metro 911 has developed, funded, organized, and equipped a backup 911 communications center which can be utilized immediately to receive and process 911 emergency calls in the event its primary emergency communications center is disabled; and

WHEREAS, CITY of HIGH POINT desires also to maintain a backup 911 center, and recognizes the economic benefits of utilizing Guilford-Metro's backup 911 center; and

WHEREAS, the parties desire to set forth in this MOU the terms by which High Point 911 may utilize the COUNTY facility that is operated by Guilford-Metro 911 as its backup 911 center for the benefit of the citizens of the City of High Point.

WHEREAS the parties pursuant to the authority of Chapter 160A, Article 20, Section 461 *et seq.* of the North Carolina General Statutes are authorized to enter into this Interlocal Agreement in order to pursue the above stated goals;

Now, therefore, in consideration of the terms, conditions, and covenants expressed herein, the parties agree as follows:

1. Purpose of Agreement

- 1.1. The purpose of this MOU is to establish a formal arrangement whereby Guilford-Metro makes available to High Point 911 its backup 911 center located at 1002 Meadowood St, Greensboro, North Carolina, for use by High Point 911 during such times as High Point 911 may experience failure to its primary 911 emergency call and

dispatch center subject to the terms of this MOU. There may be events within the High Point area that also necessitate relocation to the Meadowood site for use as an incident command center or for routine practice of back up procedures. If these scheduled events are to occur, the HP911 staff will notify GM911 and COUNTY with as much notice as possible. It is understood that this facility is owned by the COUNTY and all modifications of space must be approved by COUNTY representatives.

2. Term

- 2.1. High Point 911 will provide, at its expense, any and all such hardware, software, and any other equipment or service of any kind that is required in order to make the backup 911 Center compatible with High Point 911's primary 911 emergency call and dispatch operations. It will also be High Point 911's sole responsibility to insure and maintain such additional hardware, software, and equipment. All technology installs will be coordinated with GM911 and COUNTY personnel.

3. Responsibilities of Guilford County and Guilford-Metro 911:

- 3.1. Guilford-Metro agrees to make its backup 911 center available to High Point 24 hours per day, 7 days per week, for High Point 911 to man and operate as its own backup 911 center in the event of failure, for whatever reason, of High Point 911's primary 911 emergency call and dispatch center.
- 3.2. Guilford-Metro agrees to maintain its backup 911 center and to keep it operational, functional, and as technologically up to date as is reasonable.
- 3.3. Guilford County shall provide key cards or other methods of access to the backup 911 center to High Point 911 personnel so that High Point 911 has access to the facility at all times. HP911 is responsible for maintaining current ID's for their personnel, and notifying the COUNTY of any changes of employee status.
- 3.4. Guilford County and Guilford Metro 911 agree to cost sharing for the facility space per the consolidation agreement and addendums.

4. Responsibilities of High Point 911:

- 4.1. High Point 911 shall give to the Guilford-Metro Director as much advance notice as is practical under the then existing circumstances of its need and intent to operate the backup 911 center.
- 4.2. High Point 911 will provide, at its expense, any and all hardware, software, and any equipment or service of any kind that is required in order to make the backup 911 center compatible with Guilford-Metro's primary 911 emergency call and dispatch operations. It will also be High Point 911's sole responsibility to insure and maintain such additional hardware, software, and equipment.
- 4.3. High Point 911 will also be responsible for any network requirements for the Meadowood facility, including monthly subscription fees.
- 4.4. High Point 911 shall insure that its operations, hardware, software, and equipment do not in any way interfere with Guilford-Metro's 911 emergency communications operations.

5. Priority

- 5.1. The parties acknowledge and agree that in the event that the backup 911 center is needed by both Guilford-Metro 911 and High Point 911 at the same time, the parties

shall act in good faith and use best efforts to share the use of the backup 911 center. However, in the event that shared use is, for whatever reason, impossible or not reasonably practical, Guilford-Metro 911 shall have priority in the use of the backup 911 center, and High Point 911's needs to the backup 911 center must be subordinated thereto.

6. Funding for Expansion or Change of use

- 6.1. Should additional space become available for modification within the Meadowood facility, GM911 and CITY of HIGH POINT are responsible for all costs incurred. The COUNTY's contribution to the upgrade will be limited to the contribution of square footage and the loss of utility of the space.
- 6.2. All up fit will be done in a professional and competent manner, in compliance with NC Building, Electrical, Mechanical and Plumbing code.
- 6.3. Modification of use will also require applicable permits from the City of Greensboro.
- 6.4. Any and all modifications will be done in concert with COUNTY Facilities Director or designee to ensure no untold hardship on the COUNTY operations contained within the Meadowood facility.

7. Amendment

This MOU may not be modified or amended except by subsequent written modification approved and authorized by the governing boards of each party and signed by an authorized representative of each party.

8. Entire Agreement

This MOU contains the entire agreement between the parties, and no statement, oral or written, made by either party or agent of either party that is not contained in this written MOU shall be valid or binding.

9. Remedies

This MOU shall be enforceable by each party by all remedies available at law or in equity. Failure or delay to exercise any right, remedy, or privilege hereunder shall not operate as a waiver of such right, remedy, or privilege, nor prevent subsequent enforcement.

10. Duplicate Originals

This agreement shall be executed by the parties in triplicate originals, each of which when executed shall constitute the same MOU.

11. Applicable Law:

The Parties agree that this MOU is subject to the jurisdiction and laws of the State of North Carolina. The Parties will comply with bid restrictions, if any, and applicable laws, including N.C.G.S. §143-129(j) regarding E-verify. Any controversies arising out of this MOU shall be governed by and construed in accordance with the laws of the State of North Carolina.

12. Term of Services:

The term of this MOU shall be for one (1) year from the January 1, 2015 hereof, and will renew automatically for additional one (1) year terms until the arrangement is amended or terminated as provided herein, or until such time as this MOU is superseded by a new MOU between the Parties.

13. Indemnity:

Each Party agrees to be solely responsible for its own negligent acts or omissions and willful misconduct, and those of its employees, agents, and subcontractors, in the performance of services provided hereunder.

13.1. The CITY of GREENSBORO and/or the CITY OF HIGH POINT will indemnify and hold harmless the COUNTY and hereby agrees to be liable for any and all claims, costs, demands, causes of action (including reasonable attorney fees, if any), losses or damages that may be made against the COUNTY as a result of any negligent acts or omissions or willful misconduct on the part of the CITY of GREENSBORO or the CITY of HIGH POINT, and their employees or agents. Each CITY shall be responsible for the negligence of its employees and agents to the extent of the North Carolina Tort Claims Act.

13.2. COUNTY will indemnify and hold harmless each CITY, as applicable, and hereby agrees to be liable for any and all claims, costs, demands, causes of action (including reasonable attorney fees, if any), losses or damages that may be made against each CITY as a result of any negligent acts or omissions or willful misconduct on the part of COUNTY, its agents and/or employees to the extent allowed by law.

14. Insurance:

The CITY of GREENSBORO and the CITY OF HIGH POINT will provide a Certificate of Insurance to the COUNTY at the time of signing of this MOU that shall have limits as such to cover the costs of the system. Each CITY will notify the COUNTY immediately of any material adverse change in insurance coverage. Each CITY will provide updates to the insurance certificates upon request and as necessary to maintain documentation of required coverage.

15. Amendment:

The terms of this MOU may only be amended with a written Amendment executed by the Parties.

16. Termination:

Any Party may terminate this MOU for any reason and without penalty, upon 180 days written notice to the other Parties.

17. NOTICES:

All notices pursuant to this MOU shall be in writing and delivered personally or mailed by certified mail, registered mail, postage prepaid, with return receipt requested, at the addresses appearing below, but each Party may change such address by written notice in accordance with this paragraph. Notices delivered personally will be deemed communicated as of actual receipt. Mailed notices will be deemed communicated as of three (3) days after mailing.

Marty Lawing, County Manager

Jim Westmoreland, City Manager

GUILFORD COUNTY

CITY OF GREENSBORO

P.O. Box 3427

P.O. Box 3136

301 West Market Street

300 West Washington Street

Greensboro, NC 27402

Greensboro, NC 27402-3136

Greg Demko, City Manager

CITY OF HIGH POINT

P.O. Box 230

211 S. Hamilton Street

High Point, NC 27261

18. CONTRACT LANGUAGE:

Inclusion of titles of paragraphs or section headings, capitalization of certain words or phrases and/or bold face typestyle of certain words or phrases in this Contract are for convenience purposes only and shall not be used to interpret or construe the provisions of this Agreement. The terms "Contract" and "Agreement" and "Memorandum of Agreement" have the same meaning and may be used interchangeably throughout this document. The terms "Attachment", "Exhibit" and "Addendum" have the same meaning and may be used interchangeably throughout this document.

19. SEVERABILITY:

If any provision of this MOU is held unenforceable, then such provision will be modified in writing to reflect the Parties' intention. All remaining provisions of this MOU shall remain in full force and effect.

20. ENTIRE AGREEMENT:

This MOU, including the Exhibits and/or Attachments, if any, sets forth the entire Agreement between the Parties. Facsimile or electronic (e.g., pdf) versions of this Agreement shall have the same legal effect as originals, and all of which when fully executed, shall constitute one and the same instrument. All prior conversation or writings between the Parties hereto or their representatives are merged within and extinguished.

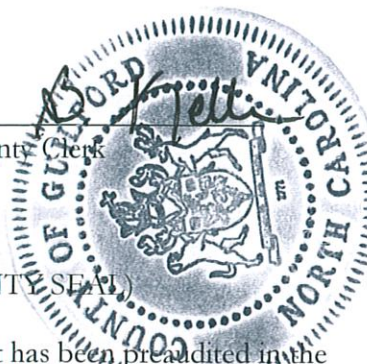
IN WITNESS WHEREOF, GUILFORD COUNTY, the CITY of GREENSBORO, and the CITY of HIGH POINT have set their hands and seals as of this 1st day of January 2015.

GUILFORD COUNTY

ATTEST:


Marty K. Lawing, County Manager


County Clerk



(COUNTY SEAL)

APPROVED AS TO CONTENT:

This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.


Guilford County Emergency Services Department


Guilford County Finance Director

APPROVED AS TO FORM:


Guilford County Attorney

EACH PARTY TO THIS AGREEMENT HAS A SEPARATE SIGNATURE PAGE

IN WITNESS WHEREOF, this Memorandum of Understanding is adopted on

This ____ day of _____, 2014.

Recommended by: Steve Lingerfelt

Steve Lingerfelt

911 Director, City of High Point

CITY OF HIGH POINT

ATTEST:

Greg Demko

Greg Demko

High Point City Manager

Lisa Vierling

Lisa Vierling

High Point City Clerk



This instrument has been preaudited in the
manner required by the Local Government
Budget and Fiscal Control Act.

Jeffery Moore 1/26/2015

Jeffery Moore

High Point City Finance Director

APPROVED AS TO FORM:

John Calkins

High Point City Attorney

Recommended by: Melanie A. Neal

Melanie Neal

Interim Executive Director, Guilford Metro 911

CITY OF GREENSBORO

ATTEST:

Wesley E. Neal

~~Jim Westmoreland~~ Wesley E. Neal
Asst.
Greensboro City Manager

Elizabeth H. Richardson

Elizabeth H. Richardson
Greensboro City Clerk

(CITY SEAL)

This instrument has been preaudited in the
manner required by the Local Government
Budget and Fiscal Control Act.

N/H ABV

Deputy Greensboro City Finance Officer

APPROVED AS TO FORM:

[Signature]

Greensboro City Attorney

Chief of
Reg.

THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK.

ePlus Technology, inc.
www.eplus.com
511 Davis Drive Suite 350
Morrisville, NC 27560



Bulk Services Agreement for 40 hours

City of Greensboro

SOW# 38148

May 5, 2015



Customer Contact

Luciano Canziani

336-433-7285

Luciano.canziani@greensboro-nc.gov

This Bulk Services Agreement ("BSA" or "Agreement") is made this 5th day of May 2015 by and between City of Greensboro, with its principal office located at Greensboro, NC. ("Customer") and ePlus Technology, inc., a corporation organized under the laws of the Commonwealth of Virginia, with its principal place of business at 13595 Dulles Technology Drive, Herndon, VA 20171 ("Supplier" or "ePlus"). ePlus and Customer may also be referred individually as "Party" or collectively as "Parties." This BSA is subject to the terms and conditions of the Customer Master Agreement dated October 3rd, 2011 between the Parties.

1.0 OVERVIEW

ePlus will provide to Customer information technology consulting services and resources on a time & material basis when for on-site or remote engineering design and support ("Services"). The ePlus engineering hourly rates that apply to this BSA follow below:

PRE-SCHEDULED WORK		
JOB ROLE	NORMAL BUSINESS HOURS	AFTER HOURS
Senior Consultant/Architect	\$215.00	\$260.00

Notes:

1. Pre-Scheduled Work is when Customer notifies ePlus at least three business days in advance of date/time work is required.
2. ePlus makes no guarantee that resources will be available to respond to emergency requests. Unscheduled requests will be handled using commercially reasonable efforts only.
3. Normal Business Hours (NBH) are defined as Monday through Friday 8am-5pm, except for ePlus holidays.
4. A minimum of six (6) hours shall be charged for any work done onsite.
5. A minimum of ½ hour shall be charged for any work done remotely.
6. All work shall be billed in 30-minute increments after any minimums have been applied.
7. All materials used shall be billed separately.
8. Senior ePlus staff providing Services in emerging or specialty technologies will bill at the Architect level or higher.
9. Emerging or specialty technologies include, but are not limited to:
 - a. Unified Communications and Collaboration: VOIP, mobility, presence, video, TelePresence
 - b. Contact Center
 - c. Virtualization
 - d. Advanced data center: Data Center Ethernet/Data Center Bridging, Unified Fabric/FCoE, Unified Computing System, load balancing, multi-context/multi-tenancy, HPC
 - e. Advanced storage: virtualization, de-duplication, replication
 - f. Advanced systems: LDAP/Active Directory design, Exchange design, high availability design, database servers
 - g. Advanced routing/switching: network virtualization & VRFs, service provider, MPLS, WAN optimization, DMVPN, virtual port channel, virtual switching system, IPv6, routing design, asymmetric routing, route health injection, optical (DWDM, ONS, etc.)
 - h. Advanced security solutions: NAC, IPS, SIEM, vulnerability/penetration testing, TrustSec, PKI, 802.1x, DOS
 - i. Advanced wireless: voice over wireless LAN, location services, intrusion, site surveys, wireless mesh, bridges, long-haul wireless
 - j. Physical security and IP surveillance

- k. Content networking: digital signage, content caching/distribution
10. All requested Services should be pre-scheduled through ePlus' Service Coordinators by calling Janelle Bennett @ 919-767-2971 or emailing jbennett@eplus.com
11. Services rendered will be deducted from the posted purchase order. Any purchase order issued under this BSA shall expire within one (1) year of issuance.
Regular statements of the balance of the agreement will be provided. When the balance has been depleted, further Services are conditioned on Customer's issuance of a new purchase order under this BSA. A new agreement or change request is not required unless ePlus' pricing has changed

2.0 PERIOD OF SUPPLIER PERFORMANCE

COMMENCEMENT AND COMPLETION DATES: May 5, 2015 thru May 4, 2016

Commencement and Completion dates represent a proposed one year term; actual term will be from the date of the purchase order until the expiration of the last purchase order issued hereunder. Either Party may terminate the BSA for any reason on thirty (30) days prior written notice to the other Party. Upon any such termination, ePlus will be paid all fees and expenses which have been incurred or earned in connection with the performance of the Services through the effective date of such termination. Additionally, in the event Customer cancels any Services with less than two (2) weeks prior notice, Customer shall reimburse ePlus for any non-refundable expenses incurred in preparation for such cancelled Services.

3.0 POINTS OF CONTACT

Unless otherwise specified in writing, the primary contacts for Supplier and the Customer shall be:

	EPLUS CONTACT	CUSTOMER CONTACT
NAME	JANELLE BENNETT	LUCIANO CANZIANI
TELEPHONE	919-767-2971	336-433-7285

4.0 FEES AND PAYMENT

- 4.1 CUSTOMER SHALL PAY, IN ACCORDANCE WITH THE RELEVANT TERMS AND CONDITIONS OF THE AGREEMENT, A FEE FOR SUPPLIER'S PERFORMANCE OF SERVICES FOR THE PROJECT.
- 4.2 CUSTOMER SHALL PROVIDE ePLUS A PURCHASE ORDER FOR **\$8,600.00** TO BE RETAINED AND APPLIED AS SERVICES ARE RENDERED BY ePLUS. CUSTOMER WILL BE NOTIFIED IF PURCHASE ORDER BALANCE IS RUNNING LOW AND NEEDS TO BE REPLENISHED WITH A NEW PURCHASE ORDER.
- 4.3 EXCEPT PURSUANT TO A CUSTOMER REQUEST UNDER SECTION 4.4, CUSTOMER WILL ONLY BE BILLED FOR SERVICES RENDERED, WITH PRIOR CUSTOMER APPROVAL. UNDER NO CIRCUMSTANCES SHALL ANY PURCHASE ORDER FURNISHED BY CUSTOMER BE CONSTRUED AS A MINIMUM PURCHASE COMMITMENT ON THE PART OF CUSTOMER.
- 4.4 AT CUSTOMER'S WRITTEN REQUEST (WHICH MAY BE BY EMAIL) AT ANY TIME, ePLUS MAY INVOICE CUSTOMER FOR THE OUTSTANDING BALANCE OF ANY PURCHASE ORDER ISSUED AGAINST THIS AGREEMENT, AND CUSTOMER AGREES TO PAY SUCH INVOICE WHETHER OR NOT SERVICES HAVE BEEN RENDERED YET. IN THE EVENT OF SUCH

PREPAYMENT, ePLUS WILL PERFORM THE SERVICES UPON CUSTOMER'S REQUEST ON OR BEFORE THE EXPIRATION DATE OF THIS AGREEMENT.

- 4.5 PAYMENTS ARE DUE TO ePLUS WITHIN 30 DAYS AFTER CUSTOMER'S RECEIPT OF AN INVOICE AGAINST THIS AGREEMENT.**

5.0 ACCEPTANCE OF SERVICES

Upon ePlus' completion of a task or Service performed, ePlus shall notify Customer by providing a time sheet for signature or a Milestone/Service Completion Certificate ("MCC"). Customer has five (5) working days from the completion of the Services or task, as applicable, to accept the work performed as being complete. Signing of the time sheet or MCC, or Customer's failure to respond to the time sheet or MCC within the designated five (5) working day period, signifies Customer's acceptance of the task and that Services have been performed in accordance with this BSA. In order to refuse acceptance of the Services, Customer must provide ePlus with full details that show that Services do not conform to the BSA. ePlus shall address such non-conformance in a timely manner and shall compile an action plan to correct any deficiencies. Acceptance may not be withheld due to defects in Services that do not represent a material non-conformance with the requirements of the BSA.

6.0 DISCLAIMER

- 6.1 ePLUS WILL NOT BE LIABLE FOR ANY FAILURE TO PERFORM THE SERVICES, TO THE EXTENT THAT THE FAILURE IS CAUSED BY CUSTOMER'S LACK OF COOPERATION.**
- 6.2 ePLUS WILL NOT BE HELD RESPONSIBLE FOR DATA LOSS. BACKUPS SHOULD BE PERFORMED PRIOR TO WORK STARTING. ALL DATA IS THE RESPONSIBILITY OF THE CUSTOMER.**
- 6.3 ePLUS WILL NOT BE HELD LIABLE FOR SOFTWARE LICENSE COMPLIANCE. SOFTWARE LICENSE COMPLIANCE IS BETWEEN THE CUSTOMER AND THE SOFTWARE COMPANY.**
- 6.4 ePLUS WILL NOT BE HELD FOR ADDITIONAL WORK NOT LISTED IN THIS BSA. AN ADDENDUM MUST BE WRITTEN AND APPROVED BY BOTH ePLUS AND THE CUSTOMER BEFORE ADDITIONAL WORK CAN BE STARTED.**
- 6.5 ePLUS WILL NOT BE HELD RESPONSIBLE FOR DELAYS OR FAILURES TO PERFORM HEREUNDER DUE TO CAUSES BEYOND ITS REASONABLE CONTROL (INCLUDING, WITHOUT LIMITATION, ACTS OF GOD, FIRE, FLOOD, WAR, EXPLOSION, SABOTAGE, TERRORISM, EMBARGO, CIVIL COMMOTION, ACTS OR OMISSIONS OF ANY GOVERNMENT ENTITY, SUPPLIER DELAYS, COMMUNICATIONS OR POWER FAILURE, EQUIPMENT OR SOFTWARE MALFUNCTION, OR LABOR DISPUTES).**
- 6.6 ePLUS WILL NOT BE HELD RESPONSIBLE FOR DELAYS OR FAILURES TO PERFORM RELATED TO THE CUSTOM CONFIGURED OR SPECIALIZED HARDWARE OR SOFTWARE NEEDING MODIFICATION BY THE MANUFACTURER.**
- 6.7 ePLUS WILL NOT BE HELD RESPONSIBLE FOR DELAYS OR FAILURES TO PERFORM RELATED TO THE DATA CONVERSION BEING PERFORMED BY THE CUSTOM CONFIGURED OR SPECIALIZED SOFTWARE MANUFACTURER.**

7.0 BSA ACCEPTANCE

Each Party hereby acknowledges and confirms that it has read this BSA # 38148 and accepts and approves the scope of work and terms and conditions. Each Party understands that should additional work be required that by its nature could not have been known or determined at the time this BSA was executed, a mutually agreeable written change order describing the additional work and any related expenses will be required.

This BSA must be signed and returned before work can begin. Please sign and return to ePlus at jbennett@eplus.com.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the Effective Date.

ePlus Technology, inc.		City of Greensboro	
AUTHORIZED SIGNATURE		AUTHORIZED SIGNATURE	
PRINTED NAME		PRINTED NAME	
TITLE		TITLE	
DATE		DATE	
		PO#	

Quote Name:



Quotation

Bill To		
CITY OF GREENSBORO		
PO BOX 3136		
GREENSBORO	NC	27402-3136
ACCOUNTING DIVISION		

Ship To		
CITY OF GREENSBORO		
300 WEST WASHINGTON STREET		
GREENSBORO	NC	27401

Quotation	Page 1 of 1
Quotation #:	21768262
Quotation Date:	05/01/2015
Expiration Date:	05/31/2015
Client Reference:	
Account Rep:	Matt Morrell

Line No.	Quantity	Part Number	MFG	Description	Unit Price	Ext Price
001	20	ZVR-VM-ZP-1VM	ZERTO	ZERTO REPLICATION LICENSE - SINGLE VM	\$698.44	\$13,968.80
002	20	ZVR-MS-PRM-ZP-1VM-1Y	ZERTO	PREMIUM M&S FOR SINGLE VM, INCLUDING 24X 7 PHONE AND EMAIL SUPPORT, 1 HOUR RESPONSE, SOFTWARE MAINTENANCE UPDATES	\$174.61	\$3,492.20

By placing an order with ePlus for products or services you agree to comply with the Terms and Conditions for Purchasing Products and Services located at <http://www.eplus.com/terms-and-conditions/Pages/Products-Services-Terms-and-Conditions.aspx> (the 'Order Terms'). Unless there is a separate written agreement signed on behalf of both you and ePlus by a duly authorized officer, the Order Terms shall be the only terms and conditions applicable to transactions between you and ePlus, and no additional or contrary terms referenced in a purchase order, document, or electronic communication shall apply. In no event shall ePlus performance under a purchase order be deemed to constitute acceptance of any terms and conditions set forth therein.

[ePlus offers flexible and easy leasing options for your IT equipment. Use leasing to increase your IT acquisition capability, overcome limited budgets, and manage the lifecycle of your assets. Contact an ePlus Leasing Coordinator at 1-703-984-8021 or \[leasing@eplus.com\]\(mailto:leasing@eplus.com\) to receive a lease quote today.](#)

Thank you for your inquiry. Please note the following about this quotation: It will expire on the date stated above. Unless freight amount is indicated, or is zero, freight will be added to the invoice. Unless Bill-To company is exempt from Sales Tax, it will be added to the invoice. Extended Warranties and Professional Services are available.

Customer Acceptance		To Place An Order , Please Contact:		Sub Total: \$ 17,461.00	
Signature: _____	Date: _____	Sales: Kelly Manning		Est. Tax:	TBD if Applicable
Name: _____	PO #: _____	Phone: 910-332-3203		Freight:	TBD
Title: _____	Ship Via: _____	Fax: 910-332-3253		Total: \$ 17,461.00	
This quotation is confidential for your internal use only.		email: kmanning@eplus.com			
This is a solicitation for an offer and is subject to credit approval. No contract is formed unless a purchase order or other offer is received and accepted by our office. If you accept this quotation with the intent to have your chosen leasing company to pay the costs directly, please note that if the Lessor does not pay ePlus for any reason, you will be responsible for payment to ePlus.		Address: 5710 Oleander Drive - Wilmington, NC 28403			
		Note: Note: Please send orders to the attention of Kelly Manning			

Quote Name:



Quotation

Bill To		
CITY OF GREENSBORO PO BOX 3136		
GREENSBORO	NC	27402-3136
ACCOUNTING DIVISION		

Ship To		
CITY OF GREENSBORO 300 WEST WASHINGTON STREET		
GREENSBORO	NC	27401

Quotation	Page 1 of 1
Quotation #:	21768369
Quotation Date:	05/01/2015
Expiration Date:	05/31/2015
Client Reference:	
Account Rep:	Matt Morrell

Line No.	Quantity	Part Number	MFG	Description	Unit Price	Ext Price
001	20	ZVR-VM-ZP-1VM	ZERTO	ZERTO REPLICATION LICENSE - SINGLE VM	\$698.44	\$13,968.80
002	20	ZVR-MS-PRM-ZP-1VM-1Y	ZERTO	PREMIUM M&S FOR SINGLE VM, INCLUDING 24X 7 PHONE AND EMAIL SUPPORT, 1 HOUR RESPONSE, SOFTWARE MAINTENANCE UPDATES	\$174.61	\$3,492.20

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Customer Acceptance		To Place An Order , Please Contact:		Sub Total: \$ 17,461.00	
Signature: _____	Date: _____	Sales: Kelly Manning		Est. Tax:	TBD if Applicable
Name: _____	PO #: _____	Phone: 910-332-3203		Freight:	TBD
Title: _____	Ship Via: _____	Fax: 910-332-3253		Total: \$ 17,461.00	
This quotation is confidential for your internal use only.		email: kmanning@eplus.com			
This is a solicitation for an offer and is subject to credit approval. No contract is formed unless a purchase order or other offer is received and accepted by our office. If you accept this quotation with the intent to have your chosen leasing company to pay the costs directly, please note that if the Lessor does not pay ePlus for any reason, you will be responsible for payment to ePlus.		Address: 5710 Oleander Drive - Wilmington, NC 28403			
		Note: Note: Please send orders to the attention of Kelly Manning			



Bill To	Ship To	Quotation	Page 1 of 1
GUILFORD COUNTY INFORMATION SE PO BOX 3427	GUILFORD COUNTY INFORMATION SE	Quotation #:	21768842
GREENSBORO NC 27402		Quotation Date:	05/04/15
ATTN: ACCOUNTING DEPT		Expiration Date:	06/03/15
		Client Reference:	
		Account Rep:	Matt Morrell

Qty	Part Number	MFG Name	Description	Unit Price	Extended Price
2	X1160A-R6	NETAPP	CARD MEZZANINE 2-PORT 10GBE	1,410.00	2,820.00

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Customer Acceptance		To Place An Order , Please Contact:		SubTotal: \$2,820.00	
Signature: _____ Date: _____		Sales: Kelly Manning		Est. Tax: TBD if Applicable	
Name: _____ PO #: _____		Phone: 910-332-3203		Freight: TBD	
Title: _____ Ship VIA: _____		Fax: _____			
This quotation is confidential for your internal use only.		email: kmanning@eplus.com			
This is a solicitation for an offer and is subject to credit approval. No contract is formed unless a purchase order or other offer is received and accepted by our office. If you accept this quotation with the intent to have your chosen leasing company to pay the costs directly, please note that if the Lessor does not pay ePlus for any reason, you will be responsible for payment to ePlus.		Address: 5710 Oleander Drive - Wilmington, NC 28403		Total: \$2,820.00	

Quote Name: 10GBase-T PCIE Card



Quotation

Bill To	Ship To	Quotation #:	21769145
GUILFORD COUNTY INFORMATION SE PO BOX 3427	GUILFORD COUNTY INFORMATION SE 301 WEST MARKET STREET	Quotation Date:	05/04/2015
GREENSBORO NC 27402	GREENSBORO NC 27401	Expiration Date:	06/03/2015
ATTN: ACCOUNTING DEPT		Client Reference:	
		Account Rep:	Matt Morrell

Line No.	Quantity	Part Number	MFG	Description	Unit Price	Ext Price
001	4	UCSC-PCIE-ITG	CISCO	INTEL X540 DUAL PT 10GBASE-T ADPT	\$803.52	\$3,214.08

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ePlus offers flexible and easy leasing options for your IT equipment. Use leasing to increase your IT acquisition capability, overcome limited budgets, and manage the lifecycle of your assets. Contact an ePlus Leasing Coordinator at 1-703-984-8021 or leasing@eplus.com to receive a lease quote today.

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Customer Acceptance Signature: _____ Date: _____ Name: _____ PO #: _____ Title: _____ Ship Via: _____ This quotation is confidential for your internal use only. This is a solicitation for an offer and is subject to credit approval. No contract is formed unless a purchase order or other offer is received and accepted by our office. If you accept this quotation with the intent to have your chosen leasing company to pay the costs directly, please note that if the Lessor does not pay ePlus for any reason, you will be responsible for payment to ePlus.	To Place An Order , Please Contact: Sales: Kelly Manning Phone: 910-332-3203 Fax: 910-332-3253 Email: kmanning@eplus.com Address: 5710 Oleander Drive - Wilmington, NC 28403 Note: Please send orders to the attention of Kelly Manning	Sub Total: \$ 3,214.08 Est. Tax: TBD if Applicable Freight: TBD Disc/Trade-In: \$ 0.00 Total: \$ 3,214.08
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Quote Name:



Quotation

Bill To		
CITY OF GREENSBORO		
PO BOX 3136		
GREENSBORO	NC	27402-3136
ACCOUNTING DIVISION		

Ship To
CITY OF GREENSBORO

Quotation #:	21771362
Quotation Date:	05/08/2015
Expiration Date:	06/07/2015
Client Reference:	
Account Rep:	Matt Morrell

Line No.	Quantity	Part Number	MFG	Description	Unit Price	Ext Price
001	2	FA-405-11TB-ETH4-SH2	PURE STORAGE	PURE STORAGE FLASHARRAY FA-405 11TB ETH4 SH2	\$192,000.00	\$384,000.00
002	2	FA-405-11TB 1YR 24/7 4HR S	PURE STORAGE	FA-405-11TB 1 YEAR 24/7 4HR SUPPORT	\$60,000.00	\$120,000.00

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Thank you for your inquiry. Please note the following about this quotation: It will expire on the date stated above. Unless freight amount is indicated, or is zero, freight will be added to the invoice. Unless Bill-To company is exempt from Sales Tax, it will be added to the invoice. Extended Warranties and Professional Services are available.

Customer Acceptance Signature: _____ Date: _____ Name: _____ PO #: _____ Title: _____ Ship Via: _____ This quotation is confidential for your internal use only. This is a solicitation for an offer and is subject to credit approval. No contract is formed unless a purchase order or other offer is received and accepted by our office. If you accept this quotation with the intent to have your chosen leasing company to pay the costs directly, please note that if the Lessor does not pay ePlus for any reason, you will be responsible for payment to ePlus.		To Place An Order , Please Contact: Sales: Kelly Manning Phone: 910-332-3203 Fax: _____ Email: kmanning@eplus.com Address: 5710 Oleander Drive - Wilmington, NC 28403	Sub Total: \$ 504,000.00 Est. Tax: TBD if Applicable Freight: TBD Disc/Trade-In: \$ 0.00 Total: \$ 504,000.00
--	--	---	--

Storage Capacity



Used

6.1 TB

Spare Disks

419.19 GB

From: [Tapler, Marsha](#)
To: [Lamb, Glenn](#)
Subject: RE: Hosted - Backup's/Regional Effort/Disaster Recovery
Date: Friday, February 05, 2016 4:17:38 PM
Attachments: [image003.png](#)
[image004.jpg](#)
[image001.jpg](#)

Hello Glen,

As long as no expenses are incurred due to Rockingham, it is eligible for 911 funds.

Thank you,

Marsha

*Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov*

cid:image001.png@01D0F624.71363D60



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From: Lamb, Glenn [mailto:Glenn.Lamb@greensboro-nc.gov]
Sent: Wednesday, February 03, 2016 8:41 PM
To: Tapler, Marsha <marsha.tapler@nc.gov>
Subject: Hosted - Backup's/Regional Effort/Disaster Recovery

Marsha,

Over the last year we've been evaluating our current equipment at both our primary and backup facilities. In conducting our failover testing between the facilities, deploying to our backup facility, and checking our server replications from the primary to the backup, we've found that our current solution is not capable of sustaining our needs, current agreements, and future endeavors. The hosted solution that we have in place is quickly running out of space (see attached, Current Storage.jpg), gives us issues with failing between the primary and backup facilities, can't be

upgraded without additional hardware/cost, and we are in the process of partnering with other 911 centers to supply a regional 911 backup center to help with the recent legislation change.

Recently we just signed an MOU (see attached, 2015 Executed Contract.pdf) with High Point 911 to provide a backup facility for their primary 911 center. We are also in the process of working with Rockingham County 911 to also sign an MOU and provide a backup facility as well. Temporarily we have a verbal agreement, emails, and a meeting scheduled to setup their access to our backup facility. In addition we are talking with other surrounding Primary PSAPs to see if they too are interested in utilizing our backup facility. The overall goal for this initiative is for us to place new equipment that will provide for a more seamless failover between the sites, additional storage capacity for the approved surcharge servers of regional centers, and to provide adequate backups. We hope in the near future to continue this trend and have other agencies partner with us in our regional backup efforts!

Attached is the necessary equipment and software to enhance our existing hosted environment for the above mentioned reasons.

Professional Configuration Services:

38148 BSA COG - 2015 - 2016 40 hrs .pdf

Primary, Backup, & 911 Center(s) Failover Software:

21768262.pdf

21768369.pdf

Server Network Interface Cards:

21768842.pdf

21769145.pdf

Hosted Storage to retain Backups & Regional Efforts:

21771362.pdf

Regional Initiative:

2015 Executed Contract.pdf

High Point 911 - GM911 signed an MOU with HP911 on 04/30/2015 to provide a backup facility/equipment for their use in the event of an outage at their 911 center. Next week (02/11/2016) High Point 911 is in the process of installing backup 911 trunks, networks, and telephone equipment to utilize our backup 911 center.

Rockingham County 911 – GM911, pending an formal agreement/MOU with RC911 on 04/10/2015 we began talks to allow their access to our backup facility. Currently we have made a verbal agreement as of 04/10/2015 to have their 911 CAMA trunks setup to automatically roll to our facility in the event of a failure. We have also agreed to provide the facility and equipment necessary in the interim of having a MOU drafted and approved. We do have several upcoming meetings to formulate the MOU and define this access.

Current GM911 hosted servers at the primary and backup:

CAD

Message Switch

C2C

Paramount (ProQA)

Aqua

Alpha Paging

Paging Interface with CAD

ANI/ALI

Backup – New Zerto Backup Manager

Regional servers to be backed up and available for immediate failover:

For approved surcharge items, see examples of current GM911 hosted servers. But the intent would be to backup the regional partners approved servers at our backup facility.

Thanks,

Glenn Lamb

Support Services Manager

glenn.lamb@greensboro-nc.gov

Guilford Metro 9-1-1

P.O. Box 3136

Greensboro, North Carolina 27402

Office: 336-373-7615

Cell: 336-337-7896

=====

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QUOTE

Quote No: COG-GM-MWD
Date: Mar 28, 2015
Terms: Lease
Shipping: DS Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: MEADOWOOD DATACENTER

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
** 7050TX SPINE SWITCHES **				
DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	2	\$19,597.20	\$39,194.40
LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$4,431.84	\$8,863.68
LIC-FIX-2-V	Virtualization license for Arista Fixed switches 40-128 port 10G (VMTracer and VXLAN)	2	\$2,016.00	\$4,032.00
** 7050TX SPINE A-CARE **				
SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	48	\$224.00	\$10,752.00
SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	48	\$224.00	\$10,752.00
** 7050SX ACCESS LAYER DISTRIBUTION **				
DCS-7050SX-64-F	Promo: Arista 7050X, 48x10GbE (SFP+) & 4xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	2	\$11,197.20	\$22,394.40
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API,	2	\$1,004.64	\$2,009.28

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DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING

Item No	Description	Qty	Unit Price	Ext. Price
	Time-stamping, OpenFlow)			
	** 7050SX A-CARE **			
SVC-7050SX-64-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050SX-64	48	\$92.80	\$4,454.40
SVC-7050SX-64-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050SX-64	48	\$92.80	\$4,454.40
	** OPTICS **			
AOC-Q-Q-40G-5M	QSFP+ to QSFP+ 40GbE Active Optical Cable 5 meter	8	\$636.80	\$5,094.40
AOC-Q-Q-40G-3M	QSFP+ to QSFP+ 40GbE Active Optical Cable 3 meter	4	\$572.80	\$2,291.20
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	1	\$6,396.80	\$6,396.80
QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	1	\$9,596.80	\$9,596.80
SFP-1G-LX	1000BASE-LX SFP (Long Haul)	1	\$148.48	\$148.48
			SubTotal	\$130,434.24
			Tax	\$8,804.31
			Shipping	\$0.00
			Total	\$139,238.55

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QUOTE

Quote No: COG-GM-MAPLE
Date: Mar 27, 2015
Terms: Lease
Shipping: Drop Ship Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: MAPLE STREET DATACENTER

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
** ARISTA HW / LICENSES **				
DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2x AC and 2xC13-C14 cords	2	\$19,597.20	\$39,194.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	2	\$1,004.64	\$2,009.28
** OPTICS **				
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	1	\$6,396.80	\$6,396.80
QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	1	\$9,596.80	\$9,596.80
CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	2	\$122.88	\$245.76
SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	2	\$101.12	\$202.24
SFP-1G-LX	1000BASE-LX SFP (Long Haul)	16	\$148.48	\$2,375.68

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DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.

Item No	Description	Qty	Unit Price	Ext. Price
** ARISTA A-CARE MAINTENANCE **				
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SubTotal				\$85,953.44
Tax				\$5,801.86
Shipping				\$0.00
Total				\$91,755.30

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Q U O T E

Quote No: COG-GM-PROSERV
Date: Mar 28, 2015
Terms: COG-D
Shipping: No Shipping

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: COG GM 911 Datacenter Design & Installation

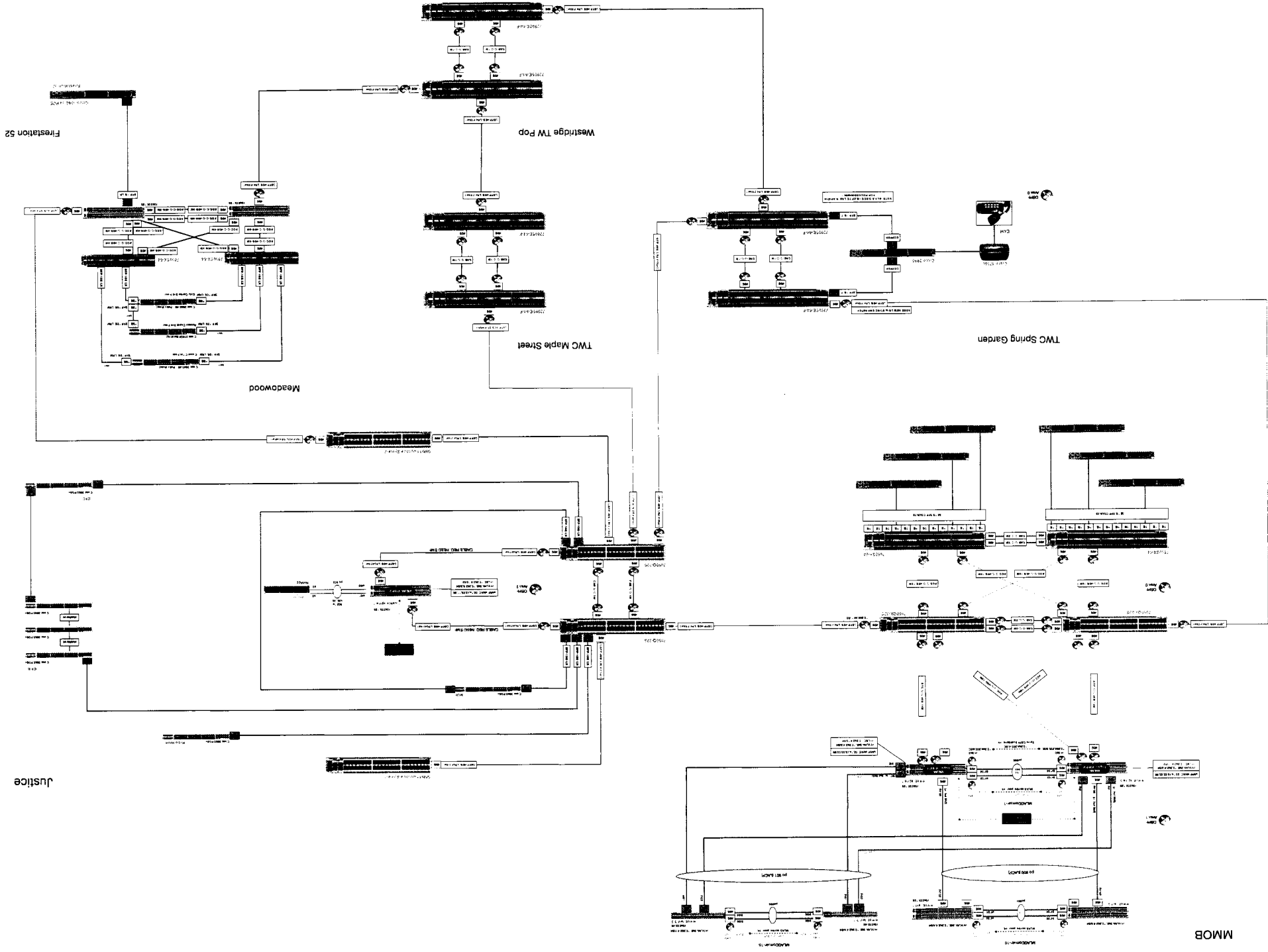
Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
IVI-PS-440	IVI datacenter professional services project	1	\$75,000.00	\$75,000.00

SubTotal	\$75,000.00
Tax	\$0.00
Shipping	\$0.00
Total	\$75,000.00

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MMOB





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QUOTE

Quote No: COG-GM-WESTR
Date: Mar 27, 2015
Terms: Lease
Shipping: Drop Ship Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: WESTRIDGE DATACENTER

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
** ARISTA HW / LICENSES **				
DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2x AC and 2xC13-C14 cords	2	\$19,597.20	\$39,194.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	2	\$1,004.64	\$2,009.28
** OPTICS **				
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	3	\$6,396.80	\$19,190.40
CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	2	\$122.88	\$245.76
SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	2	\$101.12	\$202.24
SFP-1G-LX	1000BASE-LX SFP (Long Haul)	16	\$148.48	\$2,375.68

**** ARISTA A-CARE MAINTENANCE ****

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Item No	Description	Qty	Unit Price	Ext. Price
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SubTotal				\$89,150.24
Tax				\$6,017.64
Shipping				\$0.00
Total				\$95,167.88

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Q U O T E

Quote No: COG-GM-JUST
Date: Apr 29, 2015
Terms: Lease
Shipping: DS Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: JUSTICE DATACENTER

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
** GM 911 7050TX SPINE **				
DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	2	\$19,597.20	\$39,194.40
LIC-FIX-2-V	Virtualization license for Arista Fixed switches 40-128 port 10G (VMTracer and VXLAN)	2	\$2,016.00	\$4,032.00
LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$4,431.84	\$8,863.68
** GM 911 7050TX A-CARE **				
SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	48	\$224.00	\$10,752.00
SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	48	\$224.00	\$10,752.00
** JUSTICE 6500 REPLACEMENT **				
DCS-7050QX-32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch, front-to-rear airflow and dual AC power supplies	2	\$13,997.20	\$27,994.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48

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Item No	Description	Qty	Unit Price	Ext. Price
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	2	\$1,004.64	\$2,009.28
** ARISTA A-CARE MAINTENANCE **				
SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	48	\$152.32	\$7,311.36
SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	48	\$152.32	\$7,311.36
** OPTICS **				
CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	2	\$154.56	\$309.12
QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	2	\$9,596.80	\$19,193.60
QSFP-40G-LRL4	40GBASE-LRL4 QSFP+ transceiver, up to 1KM over single-mode fiber	8	\$2,876.80	\$23,014.40
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	2	\$6,396.80	\$12,793.60
SubTotal				\$177,959.68
Tax				\$12,012.28
Shipping				\$0.00
Total				\$189,971.96

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED -
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 BASIS - WE SPECIFICALLY DISCLAIM ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR WITH REGARD TO ANY LICENSED PRODUCTS. WE
 SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, BUSINESS, GOODWILL, DATA, INTERRUPTION OF BUSINESS, NOR FOR INCIDENTAL OR CONSEQUENTIAL MERCHANTABILITY OR FITNESS OF PURPOSE,
 DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.



INTELLIGENT VISIBILITY

PO Box 348 | Browns Summit, NC | 27214-9797

Q U O T E

Quote No: COG-MMOB-L3
Date: Mar 28, 2015
Terms: Lease
Shipping: Drop Ship Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: MMOB L3 Trans Replacement-NBD

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
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**** ARISTA HW / LICENSES ****

DCS-7050QX-32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch, front-to-rear airflow and dual AC power supplies	2	\$13,997.20	\$27,994.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	2	\$1,004.64	\$2,009.28
CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	4	\$154.56	\$618.24
CAB-Q-Q-5M	40GbE QSFP+ to QSFP+ twinax copper cable, 5M	4	\$194.88	\$779.52
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	2	\$6,396.80	\$12,793.60
AOC-Q-Q-40G-15M	QSFP+ to QSFP+ 40GbE Active Optical Cable 15 meter	8	\$764.80	\$6,118.40

**** ARISTA A-CARE MAINTENANCE ****

SVC-7050QX-32-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050QX-32	48	\$105.60	\$5,068.80
SVC-7050QX-32-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050QX-32	48	\$105.60	\$5,068.80

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED. GENERALLY ALL HARDWARE/COMPUTER COMPONENTS PROPOSED ABOVE ARE COVERED BY A LIMITED ONE YEAR WARRANTY, COVERING PARTS AND LABOR FOR HARDWARE ONLY AND ON A DEFECT BASIS - WE SPECIFICALLY DISCLAIM ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR WITH REGARD TO ANY LICENSED PRODUCTS, WE SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, BUSINESS, GOODWILL, DATA, INTERRUPTION OF BUSINESS, NOR FOR INCIDENTAL OR CONSEQUENTIAL MERCHANTABILITY OR FITNESS OF PURPOSE, DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.

Item No	Description	Qty	Unit Price	Ext. Price
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SubTotal \$64,879.52

Tax \$4,379.37

Shipping \$0.00

Total **\$69,258.89**

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED -
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 DAMAGES RELATED TO THIS AGREEMENT - MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.



INTELLIGENT VISIBILITY

PO Box 348 | Browns Summit, NC | 27214-9797

QUOTE

Quote No: COG-MMOB-A-DIST
Date: Mar 27, 2015
Terms: Lease
Shipping: Drop Ship Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: MMOB Dist Access Replacement-NBD

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
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**** ARISTA HW / LICENSES ****

DCS-7050SX-64-F-P	Promo: Arista 7050X, 48x10GbE (SFP+) & 4xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	2	\$11,197.20	\$22,394.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48
CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	2	\$154.56	\$309.12
SFP-1G-LX	1000BASE-LX SFP (Long Haul)	16	\$148.48	\$2,375.68
SFP-1G-SX	1000BASE-SX SFP (Short Haul)	16	\$80.64	\$1,290.24
DCS-7050TX-128-F	Promo: Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	1	\$19,597.20	\$19,597.20
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	1	\$2,214.24	\$2,214.24
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	1	\$1,004.64	\$1,004.64

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED -
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DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.

Item No	Description	Qty	Unit Price	Ext. Price
** ARISTA A-CARE MAINTENANCE **				
SVC-7050SX-64-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050SX-64	48	\$98.60	\$4,732.80
SVC-7050SX-64-1M-NB	1 Month A-Care Software & NBD Hardware Replacement/Same Day Ship for 7050SX-64	48	\$98.60	\$4,732.80
** ARISTA A-CARE FOR EXISTING **				
SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	48	\$238.00	\$11,424.00
SubTotal				\$74,503.60
Tax				\$5,028.99
Shipping				\$0.00
Total				\$79,532.59

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED - GENERALLY ALL HARDWARE COMPUTER COMPONENTS PROPOSED ABOVE ARE COVERED BY A LIMITED ONE YEAR WARRANTY, COVERING PARTS AND LABOR FOR HARDWARE ONLY AND ON A DEPOT BASIS - WE SPECIFICALLY DISCLAIM ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR WITH REGARD TO ANY LICENSED PRODUCTS. WE SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, BUSINESS, GOODWILL, DATA, INTERRUPTION OF BUSINESS, NOR FOR INCIDENTAL OR CONSEQUENTIAL MERCHANTABILITY OR FITNESS OF PURPOSE, DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.



INTELLIGENT VISIBILITY

PO Box 348 | Browns Summit, NC | 72714-9797

Q U O T E

Quote No: COG-GM-SPRING
Date: Mar 27, 2015
Terms: Lease
Shipping: Drop Ship Ground

**** CONFIDENTIAL FOR CITY OF GREENSBORO ONLY ****

Quote Name: SPRING GARDEN DATACENTER

Bill To:	Ship To:
The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401	The City of Greensboro Rodney Roberts 300 W. Washington Street Greensboro, NC 27401

Item No	Description	Qty	Unit Price	Ext. Price
** ARISTA HW / LICENSES **				
DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2x AC and 2xC13-C14 cords	2	\$19,597.20	\$39,194.40
LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	2	\$2,214.24	\$4,428.48
LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	2	\$1,004.64	\$2,009.28
** OPTICS **				
QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	3	\$6,396.80	\$19,190.40
CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	2	\$122.88	\$245.76
SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	10	\$101.12	\$1,011.20
SFP-1G-LX	1000BASE-LX SFP (Long Haul)	20	\$148.48	\$2,969.60

**** ARISTA A-CARE MAINTENANCE ****

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED -
GENERALLY ALL HARDWARE COMPUTER COMPONENTS PROPOSED ABOVE ARE COVERED BY A LIMITED ONE YEAR WARRANTY, COVERING PARTS AND LABOR FOR HARDWARE ONLY AND ON A DEPOT
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SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, BUSINESS, GOODWILL, DATA, INTERRUPTION OF BUSINESS, NOR FOR INCIDENTAL OR CONSEQUENTIAL MERCHANTABILITY OR FITNESS OF PURPOSE.
DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.

Item No	Description	Qty	Unit Price	Ext. Price
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	48	\$224.00	\$10,752.00
SubTotal				\$90,553.12
Tax				\$6,112.34
Shipping				\$0.00
Total				\$96,665.46

PRICES SUBJECT TO CHANGE - PRICES BASED UPON TOTAL PURCHASE - ALL DELIVERY, TRAINING OR CONSULTING SERVICES TO BE BILLED AT PUBLISHED RATES FOR EACH ACTIVITY INVOLVED - GENERALLY ALL HARDWARE COMPUTER COMPONENTS PROPOSED ABOVE ARE COVERED BY A LIMITED ONE YEAR WARRANTY, COVERING PARTS AND LABOR FOR HARDWARE ONLY AND ON A DEPOSIT BASIS - WE SPECIFICALLY DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OR WITH REGARD TO ANY LICENSED PRODUCTS. WE SHALL NOT BE LIABLE FOR ANY LOSS OF PROFITS, BUSINESS, GOODWILL, DATA, INTERRUPTION OF BUSINESS, NOR FOR INCIDENTAL OR CONSEQUENTIAL MERCHANTABILITY OR FITNESS OF PURPOSE, DAMAGES RELATED TO THIS AGREEMENT. MINIMUM 15% RESTOCKING FEE WITH ORIGINAL PACKAGING.











10585

ORIGINAL

RETURN THIS COPY

ONTARIO INVESTMENTS, INC.

6666 Old Collamer Road
East Syracuse, NY 13057
(315) 431-4676
(315) 431-4675 FAX

**EXHIBIT A
EQUIPMENT SCHEDULE**

To Master Lease Agreement dated **July 1, 2013**

Equipment Schedule No. **L2282** dated **November 24, 2015**

This is Counterpart No. 1 of 3 serially numbered, manually executed counterparts. To the extent that this document constitutes chattel paper under the Uniform Commercial Code, no security interest in the document may be created through transfer and possession of any counterpart other than Counterpart No. 1.

This Equipment Schedule is made this **24th** day of **November, 2015**, between Ontario Investments, Inc. having its principal place of business at 6666 Old Collamer Road, East Syracuse, NY 13057 ("Lessor"), and **City of Greensboro** having a principal place of business at **300 West Washington Street, Greensboro, NC 27401** ("Lessee").

1. Lease

Subject to the terms and conditions set forth in this Equipment Schedule, Lessor hereby leases to Lessee and Lessee leases from Lessor the items of personal property (collectively the "Equipment" or individually and "Item") set forth in Section 5. Capitalized terms used herein shall have the meanings attributed to them in this Equipment Schedule or in the Master Lease Agreement incorporated herein.

2. Terms

The terms and conditions of the Master Lease Agreement dated **July 1, 2013**, a copy of which is annexed hereto, are incorporated in this Equipment Schedule and made a part of this Lease. This Equipment Schedule constitutes a separate Lease, evidenced by the executed copies hereof.

3. The Equipment

Lessor, at the express request of Lessee, may have ordered the Equipment set forth in this Equipment Schedule from supplier(s) selected solely by Lessee OR Lessor shall supply the Equipment from Lessor's inventory. Lessor has made no representations or recommendations regarding Lessee's choice of supplier(s). Lessee negotiated the style, quality, price, delivery date(s) and all other relating to the Equipment directly with the supplier(s) and without Lessor's assistance or participation.

4. Location of Items of Equipment

Various Locations

5. Description of Equipment

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
------	------	-----------------------	--------------	------------

(See Attachment)

6. Rent

- (a) Lease Term: 48 months
- (b) Amount of Periodic Rent: \$15,453.80
- (c) Payment Period:
 - X monthly
 - quarterly
 - annual-in-advance
 - one time payment
- (d) Start Date: 12/01/15 End Date: 11/30/19
- (e) Options: None

7. Casualty Value

The Casualty Value for any Item shall be the greater of the cost to replace the Item with like Equipment of the same or a later model, and in good repair, condition and working order, or an amount equal to the Cost of the Item multiplied by the applicable percentage set forth in the attached Schedule 1.

8. E-VERIFY

The Contractor certifies that it currently complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, and that at all times during the term of this Agreement, it will continue to comply with these requirements. The Contractor also certifies that it will require that all of its subcontractors that perform any work pursuant to this Agreement to comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. The terms "Contractor", "Sub-Contractor" and "comply" shall have the same meanings intended by Chapter 160A Section 20.1(b) of the North Carolina General Statutes. Violation of this section shall be deemed a material breach of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Equipment Schedule to be duly executed as of the date first above written.

LESSOR: ONTARIO INVESTMENTS, INC.

By: James Marshall

Its: President

Attest: M. J. Marshall

Title: for President

LESSEE: CITY OF GREENSBORO

By: Wesley Reed

Its: Asst. CITY MANAGER

Attest: Angela Reed

Title: Deputy City Clerk

Approved: James J. Clark

IT DIRECTOR

Approved as to form John H. X. X.

Assistant City Attorney

(This instrument has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.)

Michelle Drury
Deputy Finance Officer

Attachment B
Equipment Schedule L2282
Ontario Investments, Inc. (Lessor) And City of Greensboro (Lessee)

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 1</u>				
GM 911 7050TX SPINE				
2	DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15082282, JPE15090970
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
GM 911 7050TX A-CARE				
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
JUSTICE 6500 REPLACEMENT				
2	DCS-7050QX - 32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch front-to-rear airflow and dual AC power supplies	New	JPE15413829, JPE15421674
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
JUSTICE ARISTA A-CARE MAINTENANCE				
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
JUSTICE OPTICS				
5	CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	New	N/A
4	QSFP-40G-LRL4	40GBASE-LRL4 QSFP+ transceiver, up to 1KM over single-mode fiber	New	
Serial #'s: XVL154400011, XVL154400060, XVL154400097, XVL154400042				
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380228, XDP153380033
5	SFP-10G-LR	10GBASE-LR SFP+ (Long Reach)	New	
Serial #'s: XDP145202172, XDP145200613, XDP145203133, XDP145200365, XDP145203157				
2	QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000R, XFY1506J0002

Ship To:

Attn: L2282, Conf. 1-Rashid Thompson-Information Technology

<u>QTY.</u>	<u>MFR.</u>	<u>EQUIPMENT DESCRIPTION</u>	<u>NEW/ USED</u>	<u>SERIAL NO.</u>
<u>Configuration 2</u>				
ARISTA HW / LICENSES				
2	DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15304613, JPE15360464
2	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
** OPTICS**				
1	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XLA154000688
1	QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000F
2	CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	New	N/A
2	SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	New	XMD15315205D, XMD1532523YM
16	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1503CT2KF, XMD1503CT2FM, XMD1504CT055, XMD1503CT0R6, XMD1503CT0PP, XMD1503CT2MK, XMD1503CT0R5, XMD1503CT2HJ, XMD1503CT2HE, XMD1503CT2UA, XMD1503CT2U9, XMD1503CT2KE, XMD1503CT0RB, XMD1503CT2MG, XMD1504CT09B, XMD1503CT2DW				
ARISTA A-CARE MAINTENANCE				
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A

Ship To:

Attn: L2282A, Conf. 2--Rashid Thompson--Information Technology

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 3</u>				
7050TX SPINE SWITCHES				
2	DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15111724, JPE15112227
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
7050TX SPINE A-CARE				
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
7050SX ACCESS LAYER DISTRIBUTION				
2	DCS-7050SX - 64-F	Promo: Arista 7050X, 48x10GbE (SFP+) & 4xQSFP+ switch front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15414363, JPE15414378
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
7050SX A-CARE				
48	SVC-7050SX-64-1M-NB	1-Month A-Care Software & NBD Hardware Replacement/Sane Day Ship for 7050SX-64	New	N/A
48	SVC-7050SX-64-1M-NB	1-Month A-Care Software & NBD Hardware Replacement/Sane Day Ship for 7050SX-64	New	N/A
OPTICS				
8	AOC-Q-Q-40G-5M	QSFP+ to QSFP+ 40GbE Active Optical Cable 5 meter	New	
Serial #'s: XEJ150901005, XEJ150901071, XEJ150900306, XEJ150901083, XEJ150901122, XEJ150900542, XEJ150901113, XEJ150900626				
4	AOC-Q-Q-40G-3M	QSFP+ to QSFP+ 40GbE Active Optical Cable 3 meter	New	
Serial #'s: XEJ144500421, XEJ144500230, XEJ144400617, XEJ144500412				
1	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380242
1	QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000Y
1	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	XFY1506J000Y

Ship To:

Attn: L2282B, Conf. 3--Rashid Thompson--Information Technology

<u>QTY.</u>	<u>MFR.</u>	<u>EQUIPMENT DESCRIPTION</u>	<u>NEW/ USED</u>	<u>SERIAL NO.</u>
<u>Configuration 4</u>				
ARISTA HW / LICENSES				
2	DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15370019, JPE15370027
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
** OPTICS**				
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380060, XDP153380122
2	CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	New	N/A
15	SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	New	
Serial #'s: XMD1524521J3, XMD1524521J4, XMD1524521JJ, XMD1524521J0, XMD1524521J1, XMD1524521J9, XMD1527521SN, XMD1527521SE, XMD1527521SF, XMD1527521SL, XMD1527521T7, XMD1527521SM, XMD1527521T0, XMD1527521T5, XMD1527521T4				
20	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT00A, XMD1502CT009, XMD1502CT1VB, XMD1502CT1EA, XMD1502CT1VM, XMD1502CT0R8, XMD1502CT2G8, XMD1502CT2G6, XMD1502CT0V2, XMD1502CT0UT, XMD1502CT2TH, XMD1502CT1C6, XMD1502CT2CF, XMD1502CT2CD, XMD1502CT1TV, XMD1502CT29C, XMD1502CT0W8, XMD1502CT2X2, XMD1502CT0K1, XMD1502CT0W2				
10	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT1H3, XMD1502CT2CA, XMD1502CT1H6, XMD1502CT2CC, XMD1502CT1TR, XMD1502CT1GX, XMD1502CT1H7, XMD1502CT29Y, XMD1502CT16V, XMD1502CT2M8				
ARISTA A-CARE MAINTENANCE				
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A

Ship To:

Attn: L2282C, Conf. 4--Rashid Thompson--Information Technology

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 6</u>				
ARISTA HW / LICENSES				
2	DCS-7050QX - 32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch front-to-rear airflow and dual AC power supplies	New	JPE15420577, JPE15420664
2	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
4	CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	New	N/A
4	CAB-Q-Q-5M	40GbE QSFP+ to QSFP+ twinax copper cable, 5M	New	N/A
4	CAB-Q-Q-7M	40GbE QSFP+ to QSFP+ twinax copper cable, 7M	New	N/A
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380260, XDP153380049
8	AOC-Q-Q-40G-15M	QSFP+ to QSFP+ 40GbE Active Optical Cable 15 meter	New	
Serial #'s: XEJ151600313, XEJ151600406, XEJ151600622, XEJ151600601, XEJ151600072, XEJ151600068, XEJ151600387, XEJ151600543				
ARISTA A-CARE MAINTENANCE				
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A

Ship To:

Attn: L2282E, Conf. 6--Rashid Thompson--Information Technology

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 7</u>				
ARISTA HW / LICENSES				
2	DCS-7050SX - 64-F-P	Promo: Arista 7050X, 48x10GbE (SFP+) & 4xQSFP+ switch front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15414366, JPE15414443
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	New	N/A
16	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT2MD, XMD1502CT16M, XMD1502CT2X6, XMD1502CT2X5, XMD1502CT0K7, XMD1502CT2MA, XMD1502CT2A1, XMD1502CT2MB, XMD1502CT0RC, XMD1502CT2X1, XMD1502CT0R6, XMD1502CT2G9, XMD1502CT0UX, XMD1502CT0RA, XMD1502CT0UR, XMD1502CT0B1				
16	SFP-1G-SX	1000BASE-SX SFP (Short Haul)	New	
Serial #'s: XCW1503QH1C2, XCW1502QH1G7, XCW1503QH01L, XCW1502QH0EX, XCW1503QH01W, XCW1502QH0C1, XCW1503QH1BW, XCW1503QH022, XCW1503QH02U, XCW1502QH1JB, XCW1503QH0GC, XCW1503QH0GJ, XCW1503QH0TT, XCW1503QH11A, XCW1503QH0UV, XCW1502QH042				
ARISTA EXISTING				
1	DCS-7050TX-128-F	Promo: Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15313231
1	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
1	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
ARISTA A-CARE MAINTENANCE				
48	SVC-7050SX-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050SX-64	New	N/A
48	SVC-7050SX-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050SX-64	New	N/A
ARISTA A-CARE FOR EXISTING				
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A

Ship To:

Attn: L2282F, Conf. 7-Rashid Thompson-Information Technology

SCHEDULE 1

TO EQUIPMENT SCHEDULE NO. L2282 DATED NOVEMBER 24, 2015 BETWEEN ONTARIO INVESTMENTS, INC. (LESSOR) AND CITY OF GREENSBORO (LESSEE) "EQUIPMENT COST": \$725,190.28.

CASUALTY VALUES (%)

<u>PAYMENT NUMBER</u>	<u>CASUALTY VALUE</u>	<u>PAYMENT NUMBER</u>	<u>CASUALTY VALUE</u>
1	108.95	31	72.61
2	107.89	32	71.22
3	106.82	33	69.82
4	105.74	34	68.41
5	104.65	35	66.98
6	103.55	36	65.54
7	102.44	37	64.09
8	101.32	38	62.62
9	100.19	39	61.14
10	99.05	40	59.65
11	97.90	41	58.14
12	96.74	42	56.62
13	95.57	43	55.08
14	94.39	44	53.53
15	93.20	45	51.97
16	92.00	46	50.39
17	90.79	47	48.80
18	89.57	48	47.19
19	88.34		
20	87.09		
21	85.83		
22	84.56		
23	83.28		
24	81.99		
25	80.69		
26	79.37		
27	78.04		
28	76.70		
29	75.35		
30	73.99		

Lessee: **CITY OF GREENSBORO**

By: Wesley Rees

Title: Asst CITY MANAGER

Date: 12-18-15

10585

ORIGINAL

RETURN THIS COPY

LESSOR: Ontario Investments, Inc.
6666 Old Collamer Road
East Syracuse, NY 13057

CONTRACT NO. ALWAYS REFER TO:
L2282

LESSEE: City of Greensboro
ADDRESS: 300 West Washington Street
COUNTY: Guilford
CITY: Greensboro
STATE & ZIP: North Carolina 27401

CONTACT: Kathy Goodwin

CERTIFICATE OF ACCEPTANCE

<u>QTY.</u>	<u>MFR.</u>	<u>EQUIPMENT DESCRIPTION</u>	<u>NEW/ USED</u>	<u>SERIAL NO.</u>
<u>Configuration 1</u>				
GM 911 7050TX SPINE				
2	DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15082282, JPE15090970
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
GM 911 7050TX A-CARE				
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
JUSTICE 6500 REPLACEMENT				
2	DCS-7050QX-32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch front-to-rear airflow and dual AC power supplies	New	JPE15413829, JPE15421674
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
JUSTICE ARISTA A-CARE MAINTENANCE				
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
JUSTICE OPTICS				
5	CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	New	N/A
4	QSFP-40G-LRL4	40GBASE-LRL4 QSFP+ transceiver, up to 1KM over single-mode fiber	New	
Serial #'s: XVL154400011, XVL154400060, XVL154400097, XVL154400042				
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380228, XDP153380033

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 2

<u>QTY.</u>	<u>MFR.</u>	<u>EQUIPMENT DESCRIPTION</u>	<u>NEW/ USED</u>	<u>SERIAL NO.</u>
<u>Configuration 1 (con't)</u>				
5	SFP-10G-LR	10GBASE-LR SFP+ (Long Reach)	New	
		Serial #'s: XDP145202172, XDP145200613, XDP145203133, XDP145200365, XDP145203157		
2	QSFP-40G- ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000R, XFY1506J0002

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Attn: L2282, Conf. 1--Rashid Thompson--Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 3

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 2</u>				
ARISTA HW / LICENSES				
2	DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15304613, JPE15360464
2	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
** OPTICS**				
1	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XLA154000688
1	QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000F
2	CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	New	N/A
2	SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	New	XMD15315205D, XMD1532523YM
16	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1503CT2KF, XMD1503CT2FM, XMD1504CT055, XMD1503CT0R6, XMD1503CT0PP, XMD1503CT2MK, XMD1503CT0R5, XMD1503CT2HJ, XMD1503CT2HE, XMD1503CT2UA, XMD1503CT2U9, XMD1503CT2KE, XMD1503CT0RB, XMD1503CT2MG, XMD1504CT09B, XMD1503CT2DW				
ARISTA A-CARE MAINTENANCE				
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A

Ship To:

Attn: L2282A, Conf. 2-Rashid Thompson-Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 4

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 3</u>				
7050TX SPINE SWITCHES				
2	DCS-7050TX-128-F	Arista 7050X, 96x10GbE (1/10GBASE-T) & 8xQSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15111724, JPE15112227
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
7050TX SPINE A-CARE				
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
48	SVC-7050TX-128-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050TX-128	New	N/A
7050SX ACCESS LAYER DISTRIBUTION				
2	DCS-7050SX - 64-F	Promo: Arista 7050X, 48x10GbE (SFP+) & 4xQSFP+ switch front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15414363, JPE15414378
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
7050SX A-CARE				
48	SVC-7050SX-64-1M-NB	1-Month A-Care Software & NBD Hardware Replacement/Sane Day Ship for 7050SX-64	New	N/A
48	SVC-7050SX-64-1M-NB	1-Month A-Care Software & NBD Hardware Replacement/Sane Day Ship for 7050SX-64	New	N/A
OPTICS				
8	AOC-Q-Q-40G-5M	QSFP+ to QSFP+ 40GbE Active Optical Cable 5 meter	New	
Serial #'s: XEJ150901005, XEJ150901071, XEJ150900306, XEJ150901083, XEJ150901122, XEJ150900542, XEJ150901113, XEJ150900626				
4	AOC-Q-Q-40G-3M	QSFP+ to QSFP+ 40GbE Active Optical Cable 3 meter	New	
Serial #'s: XEJ144500421, XEJ144500230, XEJ144400617, XEJ144500412				
1	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380242
1	QSFP-40G-ER4	40GBASE-ER4 QSFP+ transceiver, up to 40km over single-mode fiber	New	XFY1506J000Y
1	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	XFY1506J000Y

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Attn: L2282B, Conf. 3-Rashid Thompson-Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 5

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 4</u>				
ARISTA HW / LICENSES				
2	DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15370019, JPE15370027
2	LIC-FIX-2-V	Virtualization license for Arista Fixed switches, 40-128 port 10G (VMTracer and VXLAN)	New	N/A
2	LIC-FIX-2-E	Enhanced L3 License for Arista Fixed switches, 40-128 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
** OPTICS**				
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380060, XDP153380122
2	CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	New	N/A
15	SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	New	
Serial #'s: XMD1524521J3, XMD1524521J4, XMD1524521JJ, XMD1524521J0, XMD1524521J1, XMD1524521J9, XMD1527521SN, XMD1527521SE, XMD1527521SF, XMD1527521SL, XMD1527521T7, XMD1527521SM, XMD1527521T0, XMD1527521T5, XMD1527521T4				
20	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT00A, XMD1502CT009, XMD1502CT1VB, XMD1502CT1EA, XMD1502CT1VM, XMD1502CT0R8, XMD1502CT2G8, XMD1502CT2G6, XMD1502CT0V2, XMD1502CT0UT, XMD1502CT2TH, XMD1502CT1C6, XMD1502CT2CF, XMD1502CT2CD, XMD1502CT1TV, XMD1502CT29C, XMD1502CT0W8, XMD1502CT2X2, XMD1502CT0K1, XMD1502CT0W2				
10	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT1H3, XMD1502CT2CA, XMD1502CT1H6, XMD1502CT2CC, XMD1502CT1TR, XMD1502CT1GX, XMD1502CT1H7, XMD1502CT29Y, XMD1502CT16V, XMD1502CT2M8				
ARISTA A-CARE MAINTENANCE				
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A

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Attn: L2282C, Conf. 4--Rashid Thompson--Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 6

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 5</u>				
ARISTA HW / LICENSES				
2	DCS-7280SE-64-F	Arista 7280E, 48x10GbE (SFP+) & 4x40GbE QSFP+ switch, front-to-rear air, 2xAC, 2xC13-C14 cords	New	JPE15370044, JPE15370069
2	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
** OPTICS**				
3	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	
Serial #'s: XDP153380030, XDP153380344, XDP153380274				
2	CAB-Q-Q-1M	40GbE QSFP+ to QSFP+ twinax copper cable, 1M	New	N/A
2	SFP-1G-T	1000BASE-T SFP (RJ-45 Copper)	New	XMD1530522PT, XMD1530522PU
16	SFP-1G-LX	1000BASE-LX SFP (Long Haul)	New	
Serial #'s: XMD1502CT2C9, XMD1502CT2C6, XMD1502CT2MF, XMD1502CT2M9, XMD1502CT2A5, XMD1502CT16L, XMD1502CT2ME, XMD1502CT2WY, XMD1502CT1U0, XMD1502CT2NG, XMD1502CT2A7, XMD1502CT2A2, XMD1502CT0W1, XMD1502CT0W4, XMD1502CT0W6, XMD1502CT2TG				
ARISTA A-CARE MAINTENANCE				
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A
48	SVC-7280SE-64-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7280SE-64	New	N/A

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Attn: L2282D, Conf. 5-Rashid Thompson-Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 7

QTY.	MFR.	EQUIPMENT DESCRIPTION	NEW/ USED	SERIAL NO.
<u>Configuration 6</u>				
ARISTA HW / LICENSES				
2	DCS-7050QX - 32S-F-P	Promo: Arista 7050X, 32xQSFP+ & 4xSFP+ switch front-to-rear airflow and dual AC power supplies	New	JPE15420577, JPE15420664
2	LIC-FIX-1-E	Enhanced L3 License for Arista Fixed switches, 24-36 port 10G (BGP, OSPF, ISIS, PIM, NAT)	New	N/A
2	LIC-FIX-1-Z	Monitoring & provisioning license for Arista Fixed switches 24-36 port 10G (ZTP, LANZ, TapAgg, API, Time-stamping, OpenFlow)	New	N/A
4	CAB-Q-Q-3M	40GbE QSFP+ to QSFP+ twinax copper cable, 3M	New	N/A
4	CAB-Q-Q-5M	40GbE QSFP+ to QSFP+ twinax copper cable, 5M	New	N/A
4	CAB-Q-Q-7M	40GbE QSFP+ to QSFP+ twinax copper cable, 7M	New	N/A
2	QSFP-40G-LR4	40GBASE-LR4 QSFP+ transceiver, up to 10KM over single-mode fiber	New	XDP153380260, XDP153380049
8	AOC-Q-Q-40G-15M	QSFP+ to QSFP+ 40GbE Active Optical Cable 15 meter	New	
Serial #'s: XEJ151600313, XEJ151600406, XEJ151600622, XEJ151600601, XEJ151600072, XEJ151600068, XEJ151600387, XEJ151600543				
ARISTA A-CARE MAINTENANCE				
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A
48	SVC-7050QX-32S-1M-4H	1-Month A-Care Software & 24x7x4 Hour Hardware Replacement for 7050QX-32S	New	N/A

Ship To:

Attn: L2282E, Conf. 6--Rashid Thompson--Information Technology

CERTIFICATE OF ACCEPTANCE
EQUIPMENT SCHEDULE L2282
PAGE 9

The equipment described above is leased by the LESSOR to LESSEE pursuant to the terms of the Lease Agreement dated: **July 1, 2013**. The equipment has been fully inspected and tested, or LESSEE has had a reasonable opportunity to do so, and is accepted by LESSEE and is satisfactory and in good order. The serial number on each item of Equipment, as specified above has been verified. LESSEE approves full payment by LESSOR to the supplier (s):

DATE OF ACCEPTANCE: November 24, 2015

NAME OF LESSEE: CITY OF GREENSBORO

SIGNED BY: Wesley Reid

TITLE: Deputy City Manager
(Indicate Corporate Office,
General Partner, Owner, etc.)



December 1, 2015

Ms. Kathy Goodwin
City of Greensboro
300 West Washington Street, Ste. #P112
Greensboro, NC 27401

Dear Kathy:

Enclosed, please find the following documents pertaining to Equipment Schedule No. L2282:

- (1) Spreadsheet with List of Equipment
- (3) Original Equipment Schedules with Stip Loss Tables attached (1-original, 2-duplicates)
- (3) Certificate of Acceptances (1-original, 2-duplicates)
- (2) Invoices – Invoices will be Emailed

Please review the enclosed documents and have all copies executed by an authorized signatory. **After execution, please return the following documents to my attention:**

- (2) Original Equipment Schedules with Stip Loss Tables attached (1-original, 1-duplicate)
- (2) Certificate of Acceptances (1-original, 1-duplicate)

Kathy, if you should have any questions, please contact me at (315) 431-4676.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael S. Marsallo". The signature is fluid and cursive, written over the printed name.

Michael S. Marsallo
VP/Treasurer

START DATE:
12/01/15

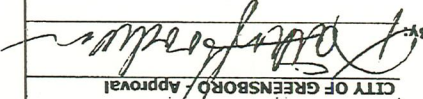
ORDER DATE	ACCEPTANCE DATE	ONTARIO PO #	CONFIG #	SERIAL #	VENDOR	QTY	DESCRIPTION	EQUIPMENT TOTAL	UNIT PRICE	TOTAL CONFIGURATION COST	RATE FACTOR	LEASE RATE	LEASE RATE CONFIGURATION TOTAL
10/19/15	11/24/15	L2282		JPET15082282, JPET15413829, JPET15421674	Intelligent Visibility	1	(4) Ansta 7050X Switch w/ features	\$177,777.08	\$177,777.08	\$177,777.08	0.02131	\$3,768.43	\$3,768.43
10/19/15	11/17/15	L2282A		JPET15304613, JPET15111724, JPET15112227, JPET15414363, JPET15414378	Intelligent Visibility	2	(2) Ansta 7280E Switch w/ features	\$85,953.44	\$85,953.44	\$85,953.44	0.02131	\$1,831.67	\$1,831.67
10/19/15	11/24/15	L2282B		JPET15370019, JPET15370027, JPET15370044, JPET15370069, JPET15420577, JPET15420664, JPET15414366, JPET15313231	Intelligent Visibility	3	(4) Ansta 7050X Switch w/ features	\$130,434.24	\$130,434.24	\$130,434.24	0.02131	\$2,779.55	\$2,779.55
10/19/15	11/23/15	L2282C		JPET15370019, JPET15370027, JPET15370044, JPET15370069, JPET15420577, JPET15420664, JPET15414366, JPET15313231	Intelligent Visibility	4	(2) Ansta 7280E Switch w/ features	\$92,604.64	\$92,604.64	\$92,604.64	0.02131	\$1,973.40	\$1,973.40
10/19/15	11/23/15	L2282D		JPET15370044, JPET15370069, JPET15420577, JPET15420664, JPET15414366, JPET15313231	Intelligent Visibility	5	(2) Ansta 7280E Switch w/ features	\$89,150.24	\$89,150.24	\$89,150.24	0.02131	\$1,899.79	\$1,899.79
10/20/15	11/24/15	L2282E		JPET15420577, JPET15420664, JPET15414366, JPET15313231	Intelligent Visibility	6	(2) Ansta 7050X Switch w/ features	\$70,520.48	\$70,520.48	\$70,520.48	0.02131	\$1,502.79	\$1,502.79
10/20/15	11/23/15	L2282F		JPET15414366, JPET15414363, JPET15414378	Intelligent Visibility	7	(3) Ansta 7050X Switch w/ features	\$78,750.16	\$78,750.16	\$78,750.16	0.02131	\$1,678.17	\$1,678.17
Totals for above Configuration										\$725,190.28			\$15,453.80
Grand Total										\$725,190.28			\$15,453.80

Calendar Year 2015 (24 Months):	Monthly LRF: 0.03606	Annual LRF: N/A	1 Time Payment
Description:	Apple iPad 2	N/A	N/A

Calendar Year 2015 (36 Months):	Monthly LRF: 0.02609	Annual LRF: N/A	1 Time Payment
Description:	Desktops w/ 4yr Laptops w/ 4yr Toughbooks Scanners/Projectors	N/A	N/A

Calendar Year 2015 (48 Months):	Monthly LRF: 0.02131	Annual LRF: N/A	1 Time Payment
Description:	Network Equip/Servers	N/A	N/A

Equipment Description for Invoices	0 Dell Desktops
	0 Dell Laptops
	0 HP Printers
	19 Various other equipment (see lease contract for details)

CITY OF GREENSBORO - Approval
By: 

Its: Leasing/Deployment Supervisor

Date:

12-1-15

18152008000000000000000000000000700003350002

MOTOROLA SOLUTIONS CREDIT COMPANY LLC
1303 EAST ALGONQUIN ROAD
IL01-9TH FLOOR
SCHAUMBURG, IL 60196



ATTN: DIRECTOR GM 911
CITY OF GREENSBORO
1201 COLISEUM BLVD
GREENSBORO, NC 27403

Contract #	: 680-0023435-000
Date Due	: 08/01/2015
Invoice Number	: 24387
Invoice Date	: 06/07/2015
Current Charges	: .00
Total Due	: 322,643.50

FOR QUESTIONS CONCERNING THIS INVOICE CONTACT: COLLEEN KASSNER 847-576-6314

THANK YOU FOR CHOOSING MOTOROLA FUNDING CORP FOR YOUR FINANCING NEEDS

Contract No. 680-0023435-000					
Date	Description	Base Payment	Sales/Use Tax	Late Charge	Contract Total
08/01/2015	ANNUAL PYMT Rental Future Due	302,242.16	20,401.34		322,643.50
680-0023435-000 Total					322,643.50

To ensure proper credit, please include this portion with your payment

ATTN: DIRECTOR GM 911
CITY OF GREENSBORO
1201 COLISEUM BLVD
GREENSBORO, NC 27403

Contract #	: 680-0023435-000
Date Due	: 08/01/2015
Invoice Number	: 24387
Invoice Date	: 06/07/2015
Current Charges	: .00
Total Due	: 322,643.50

Remit To:

MOTOROLA SOLUTIONS CREDIT
COMPANY LLC
16588 COLLECTION CENTER DRIVE
CHICAGO, IL 60693

SUNGARD® PUBLIC SECTOR

Add-On Quote

Date	Quote #	Acct Mgr
05/13/14	AZPSQ1765	Amy Shultz

Quote Prepared For:

Guilford Metro 911, NC
Glenn Lamb
1201 Colliseum Blvd.
Greensboro, NC 27402
Phone: 336-373-7615

Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
1	MCT-CLIENT-MAINT	MCT CLIENT - DIGITAL DISPATCH- CURRENT MCT MAINTENANCE FOR GREENSBORO POLICE AND GUILFORD COUNTY SHERIFF'S OFFICE Workstation license for the application software for the mobile unit allows the unit to receive and transmit digital (silent) dispatching, car-to-car and car-to-console messaging, premises and call information, magstripe reading (where available). Any additional hardware must be purchased separately.	\$58,041.00	\$58,041.00	\$58,041.00

This quote is valid until 07/11/14

Total:	\$58,041.00	\$58,041.00
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To accept this quote, please fax a signed copy of the quote to Amy Shultz at 407-304-4226.

Please call me at 336-885-0911 if I can be of further assistance or if you have any questions.

Thank you,
Amy Shultz
Customer Account Executive

SUNGARD® PUBLIC SECTOR

Add-On Quote

Date	Quote #	Acct Mgr
05/13/14	AZPSQ1764	Amy Shultz

Quote Prepared For:

Guilford Metro 911, NC
Glenn Lamb
1201 Colliseum Blvd.
Greensboro, NC 27402
Phone: 336-373-7615

The proposal is limited to upgrading to an Enterprise license for the following agencies:

Greensboro Police
Greensboro Fire Department
Guilford County Sheriff's Office
Guilford County EMS
Summerfield Fire
Colfax Fire

Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
		Upgrade to Enterprise MCT for Greensboro Police, Guilford County Sheriff's Office, Guilford County EMS, Greensboro Fire, Summerfield Fire, and Colfax Fire			
1	MCT-CLIENT	UPGRADE MCT CLIENT - DIGITAL DISPATCH TO ENTERPRISE LICENSE Workstation license for the application software for the mobile unit allows the unit to receive and transmit digital (silent) dispatching, car-to-car and car-to-console messaging, premises and call information, magstripe reading (where available). Any additional hardware must be purchased separately.	\$175,000.00	\$175,000.00	\$28,000.00
			SubTotal:	\$175,000.00	

Enterprise ONESolution Freedom

1	MCT-FREEDOM-PREM IUM	MCT FREEDOM ENTERPRISE LICENSE Freedom delivers the power of SunGard Public Sector's OneSolution Public Safety Software to smartphones and tablets. Freedom is a mobile HTML5 application designed to be platform independent. Supported platforms include IOS, Android, and Windows. Freedom Base extends core OSSI Mobile Dispatch functionality onto the mobile phone or tablets of authorized Agency employees. Accessible anywhere in the field with a 3G signal or better, Freedom Base provides key MCT functions. Freedom is designed to give you the ability of voiceless dispatch and messaging to be used on tablets and smartphones.	\$32,500.00	\$32,500.00	\$9,750.00
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Qty	Part Number	Product Description	Unit Price	Extended Price	Annual Maintenance
1	MCT-PROJ-MGNT	PROJECT MANAGEMENT SERVICES Includes professional services from SunGard for management oversight and coordination with the Customer's project management, SunGard's internal resources and any third party vendors. Includes coordinating with the Customer's Project Manager all SunGard related deliveries such as application software, implementation services, and scheduling of SunGard's resources with the Customer.	\$1,280.00	\$1,280.00	\$0.00
1	MCT-PROF-ADD	ADDITIONAL PROFESSIONAL SERVICES-IMPLEMENTATION SERVICES Services provided by SunGard product or training specialists. Services may include, but are not limited to, add-on module training, refresher training, system analysis, or consulting.	\$4,200.00	\$4,200.00	\$0.00
SubTotal:				\$37,980.00	
Total:				\$212,980.00	\$37,750.00

This quote is valid until 07/11/14

To accept this quote, please fax a signed copy of the quote to Amy Shultz at 407-304-4226.

Please call me at 336-885-0911 if I can be of further assistance or if you have any questions.

Thank you,
Amy Shultz
Customer Account Executive

Funding Committee recommendation is to approve the Guilford-Metro 911 funding reconsideration for FY2017 to \$2,991,354

911 Funding Committee Report **Jason Barbour**

a) Funding Reconsideration Request

i. Town of Holly Springs

(vote required)

PSAP	PSAP Distribution: FY2014	PSAP Distribution FY2015	Average of prior two years distributions:	Maximum 20% Carry Forward	PSAP Fund Balance June 30, 2014	PSAP Fund Balance June 30, 2015	(+/-) Fund balance between FY13 and FY14	Based on Column L -- Meets 20% rule (Ok) or Over 20% (Reduce)	Amount over Approved 20% Carryforward	Final APPROVED FY2016 Distributions (Secondary's Included)	Proposed Estimated FY2017without Reducing Distribution (Based on 5YR rolling Avg)	PROPOSED ESTIMATED FY2017 Distribution Based on 5YR Rolling Avg WITH reductions due to carryforward	MONTHLY	Number of Seats
Holly Springs Public Safety Center	253,286.93	724,330.00	488,808.47	97,761.69	471,783.68	986,393.29	514,609.61	Reduce	416,847.92	216,643.40	145,727.37	-271,120.55	-22,593.38	2
Raleigh Wake 911 Center	2,161,215.24	2,222,079.00	2,191,647.12	438,329.42	1,971,497.51	2,103,819.26	132,321.75	OK		2,861,093.36	2,026,803.87	2,026,803.87	168,900.32	25
Warren County Sheriff Comm.	232,783.73	129,667.00	181,225.37	36,245.07	441,461.14	455,145.97	13,684.83	OK		155,730.32	168,284.21	168,284.21	14,023.68	3
Washington County Communications	174,849.23	181,210.00	178,029.62	35,605.92	350,786.95	370,790.70	20,003.75	OK		199,236.78	172,105.62	172,105.62	14,342.14	3
Watauga County Sheriff Communications	327,661.54	333,953.00	330,807.27	66,161.45	352,113.68	407,068.96	54,955.28	OK		300,579.32	320,369.10	320,369.10	26,697.43	4
Beech Mountain Police Dept	105,421.41	114,042.00	108,309.21	21,661.84	138,190.42	134,219.05	17,524.43	OK		110,912.01	117,877.42	117,877.42	9,823.12	2
Boone Police Department 911	120,945.46	118,950.00	127,550.23	25,510.05	326,134.43	339,268.64	19,899.10	OK		119,666.18	120,983.92	120,983.92	10,081.99	3
Wayne County Central 911	299,462.59	335,317.00	317,389.80	63,477.96	1,837,964.29	1,662,952.20	-175,012.09	OK		438,274.27	502,232.60	502,232.60	41,852.72	7
Wilkes County Sheriff Communications	349,519.65	447,775.00	398,647.33	79,729.47	559,821.34	755,954.60	196,133.26	Reduce	116,403.80	504,897.29	405,907.37	289,503.58	24,125.30	4
Wilson County Emergency Communications	377,746.33	373,621.00	375,683.67	75,136.73	540,371.17	498,368.13	-42,003.04	OK		441,966.53	437,471.22	437,471.22	36,455.94	9
Yadkin County Emergency Communications	265,176.43	133,573.00	199,374.72	39,874.94	744,338.28	435,243.72	-309,094.56	OK		85,627.00	237,630.03	237,630.03	19,802.50	3
Yancey County Sheriff Comm.	146,440.92	163,362.00	154,901.46	30,980.29	310,254.72	321,018.29	10,763.57	OK		149,936.53	166,005.33	166,005.33	13,833.78	5
Totals	\$4,814,509.46	\$5,277,879.00			\$8,044,717.61	\$8,470,242.81			\$533,251.71	\$5,584,563.00	\$4,821,398.06	\$4,288,146.35		

Awarded Funding Reconsideration FY2016	
Approved Secondary PSAPs	

SECONDARY FUNDING:	PSAP Reconciled/ Unreconciled Expenditure Cost FY2015	Total 911 Calls	Cost Per Call	Calls Xferred to Secondary	Basis for Estimated Secondary Fuding FY2017
Alamance County Central Communications	697,595.20	101,261	6.89		
Burlington PD				20,978	\$ 144,538.42
Catawba Co Communications Center	754,160.50	89,426	8.43		
Hickory Police Dept.				12,694	\$ 108,025.94
Newton Police Dept.				2,603	\$ 22,151.53
Forsyth County 911 Communications	532,330.60	93,542	5.69		
Kernersville				4,932	\$ 28,063.08
Henderson County Communications	545,220.92	54,774	9.95		



HOLLY SPRINGS POLICE DEPARTMENT

P.O. Box 8 110 WEST BALLENTINE STREET

HOLLY SPRINGS, NC 27540

24-HOUR VOICE 919.557.9111 24-HOUR FAX 919.552.3175

RECEIVED

JAN 08 REC'D
2015

NC911 Board

January 5, 2015

Richard Taylor
Executive Director
PO BOX 17209
Raleigh, NC 27619-7209

Dear Mr. Taylor:

We recently received a letter regarding our estimated funding for fiscal year 2016. We are contacting you because we would like the board to reconsider the reduction in our distributions. On May 16, 2014 the board approved our financial reconsideration request for additional funding of \$724,330 to be used on eligible expenses for our 911 Communications Center in our new Law Enforcement Center. Our current fund balance appears to be high, however; that is due to the inability to purchase the new equipment. The main reason is due to the additional funding coming in monthly increments opposed to one lump sum, and in preparation for that transaction we have been adding the additional money to our fund balance until we have the amount needed to purchase the new equipment. Our plan is to have this completed in the coming months, well before June 30, 2015.

We hope that this clears up any confusion regarding our growing fund balance and would like to request to keep the fund balance and for the board to consider waiving any reductions in our monthly distributions for fiscal year 2016. We welcome any questions you may have about our new Law Enforcement Center and the progress we've made to date. The Holly Springs Law Enforcement Center is scheduled to be operational by October 1, 2015.

Sincerely,

John A. Herring
Chief of Police

From: Kristin Byrd [<mailto:kristin.byrd@Hollyspringsnc.us>]
Sent: Wednesday, December 02, 2015 1:47 PM
To: Taylor, Richard <richard.taylor@nc.gov>
Cc: Tapler, Marsha <marsha.tapler@nc.gov>; John Herring <john.herring@Hollyspringsnc.us>; Mike Bornes <mike.bornes@Hollyspringsnc.us>
Subject: 911 Fund Distribution

Hello Mr. Taylor,

In an effort to avoid a reduction in our fund distributions for next year, we have compiled some information for the Board's review. The attachments include a letter with a brief description of where we are in our project, documentation for milestones, and paid or upcoming payments for our equipment. Just in case it is needed for review, I have also attached the original break-down of the approved equipment for the project that was submitted when we first requested our financial reconsideration (the items highlighted in yellow were not eligible for inclusion). We apologize that this project has extended into the next distribution cycle and hope that this information will assist the Board in reevaluating our fund balance and fund distribution for the following year. Thank you so much for the time you and your staff have spent helping us to see this project through completion.

Please let me know if you have any questions.

Kristin R. Byrd
Emergency Communications Supervisor
Terminal Agency Coordinator/DCI
Holly Springs Police Department
110 W Ballentine Street
Holly Springs, NC 27540
Office: (919) 567-4722
Fax: (919) 552-3175
email: kristin.byrd@hollyspringsnc.us

From: Taylor, Richard [<mailto:richard.taylor@nc.gov>]
Sent: Friday, December 11, 2015 11:02 AM
To: Kristin Byrd
Cc: Tapler, Marsha; John Herring; Mike Bornes
Subject: RE: 911 Fund Distribution

Kristin, Mike & Chief Herring,

Thanks for the updated information but I'm still not quite clear on what amount is outstanding. The way I am understanding your letter, you have a current fund balance of \$ 967,955 (this is after the September milestone of 43,040). You have an upcoming payment of \$ 172,158 and here is where I am bit fuzzy, either you have a payment coming up of \$371,564 which is the eligible portion of a larger invoice, or is there an eligible portion equaling \$ 371,564 that you are preparing to pay, either way I don't see

the documentation clarified? With that said, my estimation of your fund balance is as follows”

\$ 967,955 Fund balance as of 12/2/2015

-172,158 Wireless Communications Invoice (Vesta) 7/25/2015

-371,564 ? Unknown invoice of eligible expense, max amount?

\$ 424,233 Estimated Fund Balance for 12/31/2015

Will payment of these two invoices (above) complete the proposed project? If not, can you provide the documentation of the estimated outstanding amount?

Thanks and if you have any questions, please let me know.

Richard
919-754-6624

From: Kristin Byrd [<mailto:kristin.byrd@Hollyspringsnc.us>]

Sent: Friday, December 11, 2015 1:49 PM

To: Taylor, Richard <richard.taylor@nc.gov>

Cc: John Herring <john.herring@Hollyspringsnc.us>; Mike Bornes <mike.bornes@Hollyspringsnc.us>;

Mary Hogan <mary.hogan@Hollyspringsnc.us>; Patty Dressen <patty.dressen@Hollyspringsnc.us>;

Tapler, Marsha <marsha.tapler@nc.gov>

Subject: FW: 911 Fund Distribution

Hello Richard!

Your numbers are all correct. We have a fund balance of \$967,955 and when the two December invoices are paid, that should bring us down to a fund balance of \$424,233. When we were originally granted funds for our project by the 911 Board, it was in the amount of \$724,330.00. Due to some delays, our project has overlapped into the next budget period, but things are quickly coming to a close and we will hopefully be operational in our new center by February. Currently this is how our project numbers look:

February 6, 2015 -	\$137,568.25 (eligible portion of a milestone invoice attached)
September 18, 2015 -	\$43,039.52 (eligible portion of milestone invoice attached)
December 2015 –	\$371,564.15 (eligible portion of the attached invoice totaling \$499,767.42)
	<u>\$172,158.08</u> (Vesta- 911 phone equipment quote attached)
Total=	\$724,330.00

In my previous correspondence I failed to mention that the last detail that is in the process of being completed is the installation of the Intrado Network. The eligible fees associated with that will also be coming out of our balance, but not until after the first of the year. That will be a onetime payment of \$25,814.26 and a monthly combined recurring charge of \$5,012.08 for ALI Management service and Voice and Routing service and Text 2 911. At this time, I do not have an invoice to share so that is why it was not included initially. I hope I have answered all of your questions. Of course if there is anything else that I can provide, please let me know. Thanks you for taking the time to consider our request.

Kristin R. Byrd
Emergency Communications Supervisor
Terminal Agency Coordinator/DCI
Holly Springs Police Department
110 W Ballentine Street
Holly Springs, NC 27540
Office: (919) 567-4722
Fax: (919) 552-3175
email: kristin.byrd@hollyspringsnc.us

From: Taylor, Richard [<mailto:richard.taylor@nc.gov>]
Sent: Friday, December 11, 2015 2:00 PM
To: Kristin Byrd
Cc: John Herring; Mike Bornes; Mary Hogan; Patty Dressen; Tapler, Marsha
Subject: RE: 911 Fund Distribution

Thanks Kristin, this helps a lot. Do you have a copy of the Intrado (now their name is West) quote? I know you said "after the first of the year" but that can be a wide span of time. Do you anticipate the onetime charge of \$25,814.26 to be paid before June 30, 2016?

Richard
919-754-6624

From: Kristin Byrd [<mailto:kristin.byrd@Hollyspringsnc.us>]
Sent: Monday, December 14, 2015 9:58 AM
To: Taylor, Richard <richard.taylor@nc.gov>
Cc: John Herring <john.herring@Hollyspringsnc.us>; Mike Bornes <mike.bornes@Hollyspringsnc.us>; Mary Hogan <mary.hogan@Hollyspringsnc.us>; Patty Dressen <patty.dressen@Hollyspringsnc.us>; Tapler, Marsha <marsha.tapler@nc.gov>
Subject: RE: 911 Fund Distribution

Good morning Richard!

I have a contract that I have attached that shows the expenses related to the Intrado/West purchase. That information is located within the document in Section 3, 3.1. The onetime charge of \$25,814.26 will definitely be paid before June 30, 2016. We don't have an actual invoice yet, so I hope that this is helpful and if there is anything else I can provide, don't hesitate to let me know! We really appreciate all of your help.

Kristin R. Byrd
Emergency Communications Supervisor
Terminal Agency Coordinator/DCI

Holly Springs Police Department
110 W Ballentine Street
Holly Springs, NC 27540
Office: (919) 567-4722
Fax: (919) 552-3175
email: kristin.byrd@hollyspringsnc.us

From: Taylor, Richard [<mailto:richard.taylor@nc.gov>]
Sent: Tuesday, December 22, 2015 12:51 PM
To: Kristin Byrd
Cc: John Herring; Mike Bornes; Mary Hogan; Patty Dressen; Tapler, Marsha; Mason, Karen
Subject: RE: 911 Fund Distribution

Good Afternoon Kristen,

I trust you are ready for the Christmas Holiday! I have been working on the issue with the Holly Springs fund balance and the Intrado/West project. It is a bit confusing but I think I understand it now but please check my calculations below to ensure accuracy.

\$ 967,955.00 December 11, 2015 Fund Balance (based on your 12/11 email)
371,564.15 (being paid in December 2015, based on your 12/11 email)
172,158.08 (being paid in December 2015 based on your 12/11 email)
424,232.77 Estimated Fund Balance 12/31/2015
25,814.26 One-Time Payment to be made before 6/30/2016 (based on your 12/14 email)
398,418.51 Estimated Fund Balance after one-time payment

Based on the contract you provided, the \$ 5,012.08 charge does not begin until year two, which based on the "go live" date that you have indicated would probably be February 2018. It is not clear from your emails when Phase 1 and Phase 2 actually start, I'm thinking February 2016 (based on Chief Herring's 12/02/2015 letter) so if that is correct, the monthly recurring charge of \$ 4,882.91 applies. That amount times 5 months (February-June) would equal \$ 24,414.55.

Excerpt from the Motorola contract you provided, Section 3, page 5: During implementation, the monthly recurring charges will be invoiced in three phases. Phase one will begin upon activation of the ALI Management service; the associated monthly recurring charge is \$ 4,257.91 Phase two will begin upon activation of Voice and Routing services; the associated monthly recurring charge will increase to \$4,882.91. Phase three will begin in year 2 after activation of texting service; the associated monthly recurring charge will increase to \$5,012.08. The 60 month terms will commence once all services are live.

\$ 398,418.51 Estimated Fund Balance after one time payment
24,414.55 Monthly Recurring Charge (x5 mos)
374,003.96 Estimated June 30, 2016 Fund Balance (w/o opex)

118,516.06 5 year average of annual operating costs (opex)
255,487.90 Estimated June 30, 2016 Fund Balance (with all costs)
97,761.69 20% Carryover Amount
\$ 157,726.21 Excess Fund Balance

What is unknown are the cost savings of switching CenturyLink to Intrado. Do you have that projected number?

Based on these calculations, it appears that Holly Springs is considerably over fund balance in the ETSF. Again, please review my calculations and be sure that I haven't overlooked anything.

Thanks,
Richard
919-754-6624

From: Kristin Byrd [<mailto:kristin.byrd@Hollyspringsnc.us>]
Sent: Monday, December 28, 2015 4:31 PM
To: Taylor, Richard <richard.taylor@nc.gov>
Cc: John Herring <john.herring@Hollyspringsnc.us>; Mike Bornes <mike.bornes@Hollyspringsnc.us>; Mary Hogan <mary.hogan@Hollyspringsnc.us>; Patty Dressen <patty.dressen@Hollyspringsnc.us>; Tapler, Marsha <marsha.tapler@nc.gov>; Mason, Karen <karen.mason@nc.gov>
Subject: RE: 911 Fund Distribution

Hello Richard,

I've been on vacation the past week, enjoying some time with my family. I hope you had a wonderful holiday as well. I looked over your numbers and they do appear correct. I think the additional money we show may be due to the monthly distributions received prior to the fund reconsideration increase in July 1, 2014, and of course the monthly distributions after that had ended. I have really tried to think of any additional expenditures that we may incur prior to the July 1, 2016 distributions and we may order some additional chairs for our center, so I have attached a quote for that as well, although I doubt that will help our numbers much.

Thank you for putting so much of your time into our center and making sure that everything is right. It is much appreciated.

Kristin R. Byrd
Emergency Communications Supervisor
Terminal Agency Coordinator/DCI
Holly Springs Police Department
110 W Ballentine Street
Holly Springs, NC 27540
Office: (919) 567-4722
Fax: (919) 552-3175
email: kristin.byrd@hollyspringsnc.us

From: Taylor, Richard [<mailto:richard.taylor@nc.gov>]
Sent: Monday, April 04, 2016 5:36 PM
To: Kristin Byrd <kristin.byrd@Hollyspringsnc.us>; Tapler, Marsha <marsha.tapler@nc.gov>
Cc: John Herring <john.herring@Hollyspringsnc.us>; Mike Bornes <mike.bornes@Hollyspringsnc.us>; Mary Hogan <mary.hogan@Hollyspringsnc.us>; Patty Dessen <patty.dessen@Hollyspringsnc.us>; Tapler, Marsha <marsha.tapler@nc.gov>; Mason, Karen <karen.mason@nc.gov>
Subject: RE: 911 Fund Distribution

Kristin,

This is my last correspondence from you and based on your comments "I looked over your numbers and they do appear correct I have really tried to think of any additional expenditures that we may incur prior to the July 1, 2016 distributions and we may order some additional chairs for our center, so I have attached a quote for that as well, although I doubt that will help our numbers much " and the calculations from your provided figures below in the 12/22/2015 email I don't believe there is justification for not reducing funding to Holly Springs PD for FY17. If you have any questions, please let me know.

Richard
919-754-6624

Hi Richard!

Thank you for your help with this. I am glad to have it resolved. Please let me know if you need anything else from HSPD.

Kristin R. Byrd
Emergency Communications Supervisor
Terminal Agency Coordinator/DCI
Holly Springs Police Department
750 Holly Springs Rd.
Holly Springs, NC 27540
Office: (919) 567-4722
Fax: (919) 552-3175
email: kristin.byrd@hollyspringsnc.us

Funding Committee recommendation is to not to support any funding at this time, however staff is to closely monitor PSAP funds in case funds are needed during FY2017

911 Funding Committee Report **Jason Barbour**

a) Funding Reconsideration Request

iii. Randolph Co 911

(vote required)



Randolph County
DEPARTMENT OF
EMERGENCY SERVICES

152 N. Fayetteville St
Asheboro, NC 27203

Ph: 336-318-6911
Fax: 336-318-6951



www.randolphcountync.gov

Office of the Chief

February 17, 2016

Marsha Tapler
Financial Analyst
Office of Information Technology Services
NC 911 Board
PO Box 17209
Raleigh, NC 27619-7209

Ms Tapler,

Randolph County is requesting a funding reconsideration of \$1,828,910.45 for FY2016-2017 to cover the costs associated with building a new state-of-the-art 911 communications center. The funding requested will allow Randolph County to equip the new center for 911 operations. Once completed, the original 911 center will become the redundant and fully functional back-up center. Randolph County applied for 911 grant funding during the FY2015-2016 grant cycle but was not selected for the award.

Construction began on the new facility on January 13, 2016. The new 911 center will have increased space over the current center and will allow for up to five additional positions. Our fund balance at the end of FY2015-2016 was \$133,801. We will carry this forward and use it to supplement the FY2016-2017 budget. The 911 authorized expenditures for the new building should be completed by Q3 of FY2016-2017. The center should be operational in Q4 of FY2016-2017. In addition to the 911 funds, Randolph County has committed over \$2 million toward this project.

This new state-of-the-art facility will provide enhanced services to the citizens and visitors of Randolph County for at least 25-years. We sincerely appreciate the Board's consideration of this request. Please contact me if I can provide you with additional information or to answer any questions that you may have.

Best regards,

Donovan Davis

From: [Rowland, Michael T.](#)
To: [Tapler, Marsha](#)
Cc: [Taylor, Richard](#); [Mason, Karen](#); [Davis, Donovan L.](#)
Subject: RE: Funding Reconsideration
Date: Wednesday, March 30, 2016 1:33:48 PM
Attachments: [image001.png](#)

Marsha,

Sorry for the delay, but I wanted to check with Donovan Davis before responding.

We plan to go-live with 9 positions. The other 3 positions will be used as spares for special events when call volume increases and training. Due to the timing of the go-live with the new center, we are not planning on asking for additional staff until the 17-18 budget year. Please let me know if you need anything else.

Respectfully,

Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

From: Tapler, Marsha [mailto:marsha.tapler@nc.gov]
Sent: Tuesday, March 29, 2016 11:33 AM
To: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>
Cc: Taylor, Richard <richard.taylor@nc.gov>; Mason, Karen <karen.mason@nc.gov>
Subject: RE: Funding Reconsideration

Good morning Mr. Rowland,

The reconsideration did not get approved at this time. The Funding Committee requested staff to ask for the following information so they could move forward on the request.

1. Please provide justification for the increased number of positions.
2. Will these positions will be approved and staffed this fiscal year?

Thank you,

Marsha

*Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office*

marsha.tapler@nc.gov

www.nc911.nc.gov



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From: Rowland, Michael T. [<mailto:Michael.Rowland@randolphcountync.gov>]

Sent: Tuesday, March 29, 2016 8:09 AM

To: Tapler, Marsha <marsha.tapler@nc.gov>

Subject: Funding Reconsideration

Marsha,

I was wondering if you could tell me the status of the funding reconsideration for Randolph County. I have a budget meeting coming up and I'm sure I'll get asked.

Respectfully,

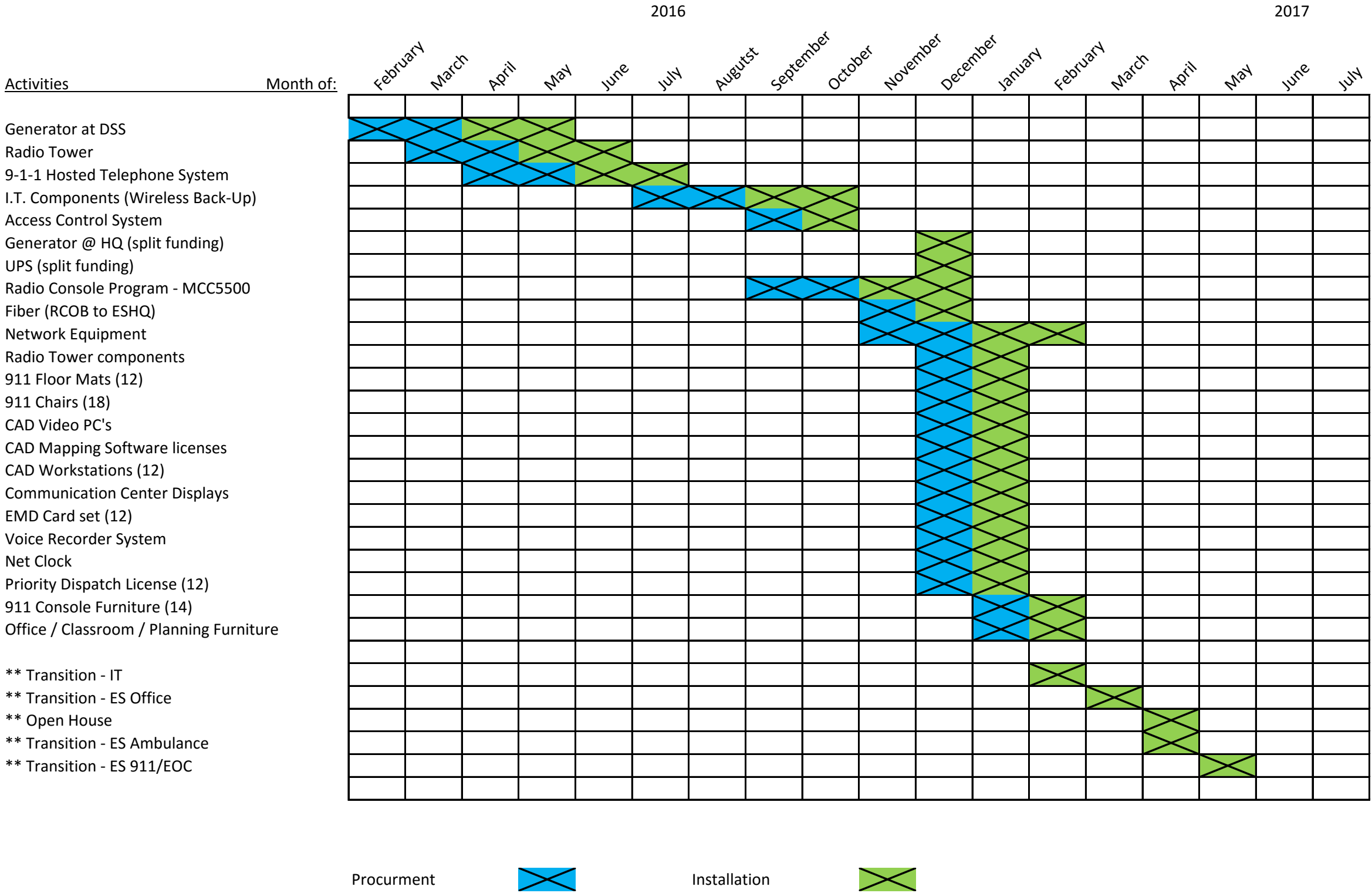
Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

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ES Headquarters Procurement Schedule



North Carolina 911 Board

PSAP Name: Randolph County

Contact Name: Donovan Davis

Contact Address: 152 A North Fayetteville St

City: Asheboro

Zip: 27203

Contact Email: Donovan.Davis@randolphcountync.gov

Instructions: All requests for review of PSAP Distribution amount must use this form with each request. Please do not change block descriptors, formulas or formatting. ***PLEASE SEE INSTRUCTIONS tab for further details All requests must be filed with the NC 911 Board no later than February 19, 2016. Email this form and all supporting documentation to marsha.tapler@nc.gov. If you have questions regarding this form or filing a request, please call Marsha Tapler at 919-754-6344 or email at marsha.tapler@nc.gov.***

June 30, 2015 Emergency Telephone System Fund Balance:

133,801.82

	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring MONTHLY Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
Expenditure				
Phone Systems - Furniture				
Selective Rtnng/ALI Prov 9-1-1 trk line charges	64,666.80	50,016.66	28,340.73	
Basic line charge only **One administrative line per call-taking position	3,084.85			
Interpretive Services	1,496.16			
Data Connections for the sole purpose of collecting call information for analysis. If connections is shared with non-eligible 911 device, only a percentage is eligible.				
MPLS-Fiber used for backup PSAPs connections		35,527.75		
Automatic Call Distribution System				
911 telephone equipment (CPE, etc.)	36,335.99			
TDD/TTY	430.66			
Furniture: Cabinets, tables, desks which hold 911 equipment	17,159.05	219,766.63		
TOTAL	\$123,173.51	\$305,311.04	\$28,340.73	\$0.00

	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring MONTHLY Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
SOFTWARE				
CAD (modules that are part of the call-taking process only)				
GIS (to create and display the base map showing street centerlines and address, address point layer)	15,650.00	27,928.00		
Message switch software **must meet requirements noted in Approved Use of Funds list.	2,430.00			

MCT Digital Voiceless Dispatch Licensing **Allowable for Dispatched Protocols Law, Fire & EMS.				
Voice Logging Recorder				
MIS for 9-1-1 phone system				
Time Synchronization				
Dispatch Protocols (Law, Fire, Medical)	299.00			
Quality Assurance for Protocols		21,335.00		
ALI Database software				
Software Licensing				
Radio console software. Some Radio console software will include many additional modules that are not a part of the 911 process and are not eligible.				
Console Audio Box (CAB) software				
Paging software (to send call from CAD to first responder pager or mobile phone)				
Computer Aided Dispatch (CAD) to Computer Aided Dispatch (CAD) interface software (sending CAD info to another PSAP for dispatch)				
Automated digital voice dispatching software				
Software MAINTENANCE	98,575.54			
TOTAL	\$116,954.54	\$49,263.00	\$0.00	\$0.00

	FY2015 (2014-2015) ACTUAL Expenditures from Reconciled Report	FY2017 (2016-2017) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2017 (2016-2017) Requested Increase Amount Recurring MONTHLY Cost	FY2017 (2016-2017) Requested Increase Amount Recurring ANNUAL Cost
HARDWARE				
CAD server				
GIS server				
911 Phone server				
Voice logging server		66,739.60		12,500.00
Monitors				
Computer Workstations	23,337.42	19,065.51		
Time Synchronization				
UPS	10,915.00			
Generator	505.42			
Call Detail Record Printer (automatically captures incoming 911 telephone call data)				
Radio Network Switching Equipment used exclusively for PSAP's Radio Dispatch Consoles (i.e.: CEB, IMC, NSS)	389,490.64	381,752.00		
Fax Modem (for rip & run)				
Printers (CAD, CDR, Reports, etc.)				
Radio Console Dispatch Workstations				
Radio Console Ethernet Switch		4,300.00		
Radio Console Access Router				
Back Up Storage Equipment for 911 Data Base Systems				
Mobile Message Switch				
Paging Interface With Computer Aided Dispatch (CAD) system				
Alpha / Numeric Pager Tone Generator				
Radio Consolette **as defined in Approved Use of Funds List				
Handheld GPS devices that are used strictly for 911 addressing **as defined in Approved Use of Funds List.				
Hosted Solutions:**Must be approved by 911 Staff prior to reporting.				
Hardware MAINTENANCE	28,424.05			
TOTAL	\$452,672.53	\$471,857.11	\$0.00	\$12,500.00

Training Expenditures Total	\$9,122.83	\$0.00	\$0.00
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IMPLEMENTAL FUNCTIONS

Database Provisioning for 911	94,110.08		
Addressing for 911	33,916.87		
TOTAL	\$128,026.95	\$0.00	\$0.00

Total FY2015 Expenditures
 \$829,950.36

To be completed by 911 Board Staff:

PROPOSED FY2016 FUNDING	\$659,358.16
FY2017 Anticipated Capital Expenditures	\$826,431.15
FY2017 Anticipated Monthly Recurring	\$340,088.76
FY2017 Anticipated Annual Recurring	\$12,500.00
Use of fund balance:	\$0.00

Requested FY2017 Funding
 \$1,838,378.07

Approved Carry Forward 20%
 \$103,312.00

From: [Rowland, Michael T.](#)
To: [Tapler, Marsha](#); [Buxton, Justine M.](#); [Davis, Donovan L.](#)
Cc: [Taylor, Richard](#)
Subject: RE: MCC5500 proposal for new ES HQ
Date: Monday, March 14, 2016 4:13:59 PM
Attachments: [image001.png](#)
[image002.png](#)
[MCC5500Core-console diagram.pdf](#)

Marsha,

Here's the MCC5500 console diagram. Please us know if you need anything else.

Respectfully,

Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

From: Tapler, Marsha [mailto:marsha.tapler@nc.gov]
Sent: Tuesday, March 8, 2016 5:45 PM
To: Buxton, Justine M. <Justine.Buxton@randolphcountync.gov>; Davis, Donovan L. <Donovan.Davis@randolphcountync.gov>
Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Taylor, Richard <richard.taylor@nc.gov>
Subject: RE: MCC5500 proposal for new ES HQ

Justine,

The diagrams located throughout the proposal are generic and reflect the possible configuration. The request is for the actual diagram of Randolph's configuration that include all positions.

Thank you,

Marsha

Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov



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From: Buxton, Justine M. [mailto:Justine.Buxton@randolphcountync.gov]
Sent: Tuesday, March 08, 2016 4:49 PM
To: Tapler, Marsha <marsha.tapler@nc.gov>; Davis, Donovan L. <Donovan.Davis@randolphcountync.gov>
Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Taylor, Richard <richard.taylor@nc.gov>
Subject: RE: MCC5500 proposal for new ES HQ

Marsha,

Please elaborate as to what you want the diagram to depict.

Page 12 of the attached document shows the MCC5500 system architecture – how all of the components relate and are connected. All of

the items listed on the Equipment List (p.29) are demonstrated on page 12 followed by written description and function of the components.

Justine Buxton
Technology Officer
Randolph County Emergency Services
152 North Fayetteville Street
Asheboro, NC 27203
(336)318-6912
justine.buxton@randolphcountync.gov

From: Tapler, Marsha [<mailto:marsha.tapler@nc.gov>]
Sent: Monday, March 07, 2016 5:43 PM
To: Davis, Donovan L.
Cc: Rowland, Michael T.; Buxton, Justine M.; Taylor, Richard
Subject: FW: MCC5500 proposal for new ES HQ

Hello Mr. Davis,

This is the same as the contract sent earlier and does have a generic diagram. Please request the correct diagram for your center. This request is for the system and not a layout of just the consoles within the center.

Thank you,

Marsha

Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov



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From: Davis, Donovan L. [<mailto:Donovan.Davis@randolphcountync.gov>]
Sent: Monday, March 07, 2016 3:50 PM
To: Tapler, Marsha <marsha.tapler@nc.gov>
Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Buxton, Justine M. <Justine.Buxton@randolphcountync.gov>
Subject: FW: MCC5500 proposal for new ES HQ

Marsha, we just received the attached information by email this morning from the Motorola / Amerizon Wireless rep. I believe the attachment marked *4210 001.pdf* has what you are looking for beginning in section 3.3.1 for the radio diagram, but it still looks generic to me. If you're talking about how the system will be laid out in the center (at the consoles), we do not have a diagram of that.

From: Buxton, Justine M.
Sent: Monday, March 07, 2016 10:24 AM
To: Davis, Donovan L.; Rowland, Michael T.
Subject: MCC5500 proposal for new ES HQ

Attached is the MCC5500 proposal from Amerizon for the new ES HQ. I'll save you some scrolling...here's the nitty gritty:

PRICING

Motorola is pleased to provide the following equipment and services to RANDOLPH COUNTY:

• Equipment Cost(MCC5500)	\$445,884.75
• APX7500 FOR DISPATCH	\$271,001.25
• Installation Cost/Service	\$222,925.00
• Total Freight	\$ 3,907.00

Total System Cost \$943,718.00

Justine Buxton
Technology Officer
Randolph County Emergency Services
152 North Fayetteville Street
Asheboro, NC 27203
(336)318-6912
justine.buxton@randolphcountync.gov

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From: [Rowland, Michael T.](#)
To: [Tapler, Marsha](#); [Davis, Donovan L.](#); [Buxton, Justine M.](#)
Subject: RE: REVISED: Randolph FY2017 Funding Reconsideration Request
Date: Monday, March 14, 2016 4:08:34 PM
Attachments: [image001.png](#)

Marsha,

The cost in F24 is for the monthly recurring for the Intrado hosted phone system. The selective routing is included in that cost.

Respectfully,

Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

From: Tapler, Marsha [<mailto:marsha.tapler@nc.gov>]
Sent: Monday, March 14, 2016 3:41 PM
To: Davis, Donovan L. <Donovan.Davis@randolphcountync.gov>; Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Buxton, Justine M. <Justine.Buxton@randolphcountync.gov>
Subject: RE: REVISED: Randolph FY2017 Funding Reconsideration Request
Importance: High

Greetings~

I just realized you have listed the total monthly charge for A911 selecting routing in cell F24. This would not be correct as the amount listed here should be the amount of increase from what you are currently paying. Please let me know amount of increase as I'm trying to send this to the Funding Committee for review.

Thank you,

Marsha

Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov



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From: Davis, Donovan L. [<mailto:Donovan.Davis@randolphcountync.gov>]
Sent: Tuesday, March 08, 2016 4:13 PM
To: Tapler, Marsha <marsha.tapler@nc.gov>
Subject: FW: REVISED: Randolph FY2017 Funding Reconsideration Request

Marsha,

The information below will hopefully answer your questions.

Thanks!
Donovan

From: Rowland, Michael T.
Sent: Tuesday, March 08, 2016 2:59 PM
To: Davis, Donovan L.
Subject: FW: REVISED: Randolph FY2017 Funding Reconsideration Request

Donovan,

The \$381,752 is the price of the last MCC5500 upgrade. That was the cost of just the radio console and installation. That goes in D67. My copy has the \$525,000 cost.

The \$12,500 is the yearly maintenance and not the monthly maintenance for the current voice recorder. I assumed that the new recorder would be similar if not more. However, I did place it in the wrong cell. It should be in H60.

The other adjustments look reasonable.

Respectfully,

Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

From: Tapler, Marsha [<mailto:marsha.tapler@nc.gov>]

Sent: Tuesday, March 8, 2016 10:29 AM

To: Davis, Donovan L. <Donovan.Davis@randolphcountync.gov>

Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Buxton, Justine M. <Justine.Buxton@randolphcountync.gov>; Taylor, Richard <richard.taylor@nc.gov>

Subject: RE: REVISED: Randolph FY2017 Funding Reconsideration Request

Hello Mr. Davis,

Please explain the following:

What makes up the total in the radio workstation cell as the proposal notes console with installation as \$381,752.00? There appears to be several prices throughout all emails sent.

Where is the \$12,500 amount located for voice logger noted? As listed, monthly recurring cost would total \$150,000 per year, so please explain.

Once the review has been completed, the following additional corrections will be made to the reconsideration request.

75% eligible of the computer cost – OMNIX is not an eligible expense

50% eligible of the Double Radius invoice—Per notes below radio and phone system will run over this connection: radio is not an allowable expense.

Tax removed from Ethernet amount. This cell should reflect \$4,300.00

Thank you,

SECTION 7

PRICING

Motorola is pleased to provide the following equipment and services to RANDOLPH COUNTY :

• Equipment Cost	\$260,167.00
• Installation Cost	\$121,585.00
Total System Cost	\$381,752.00

Marsha

Marsha Tapler

Financial Analyst, North Carolina 911 Board

NC Department of Information Technology

919.754.6344 office

marsha.tapler@nc.gov

www.nc911.nc.gov



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From: Davis, Donovan L. [<mailto:Donovan.Davis@randolphcountync.gov>]

Sent: Monday, February 29, 2016 4:43 PM

To: Tapler, Marsha <marsha.tapler@nc.gov>

Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Buxton, Justine M. <Justine.Buxton@randolphcountync.gov>

Subject: REVISED: Randolph FY2017 Funding Reconsideration Request

Marsha,

Below you will find our answers to the questions you sent last Thursday evening. I realize some of the information is not as accurate as you would like, but please understand that we are trying to provide you with the most up-to-date and detailed information that we can. We have had some difficulty receiving information from the vendors, and there is a lot to organize/manage with the new construction and the timelines.

Regarding the radio system purchase, before the end of 2015 we requested the radio sales rep (Amerizon Wireless) to provide us with a detailed budgetary (itemized) quote for the radio console purchase. When we checked with him again last Friday he said that he still could not provide that to us because he could not get it from the Motorola rep. I will provide that to you as soon as we receive it. In the meantime, I have included the detailed list from the last time we purchased the same system for the current 911 center. We don't expect there to be any changes in terms of the itemized equipment. We have been told that the radio equipment is on state contract, but I will have to verify it.

Again, we realize that it is important for you to have as much information as possible and **we appreciate your patience and assistance**. It is important for us to be able to determine the funding as we construct the new 911 center and retrofit the back-up.

Attached to this email is:

Revised FY2017 PSAP Distribution Reconsideration Request Form
ESHQ Procurement Schedule

Console diagram

Detailed (itemized) quote from previous radio console purchase for MCC5500 radio dispatch system.

Power E-CATS image that shows different reports not available through regular E-CATS

From: Rowland, Michael T.
Sent: Friday, February 26, 2016 11:22 AM
To: Davis, Donovan L.
Subject: FW: Randolph FY2017 Funding Reconsideration Request

Donovan,

See below for my response. I don't have an answer for ECATS or the radio purchase. If we can't get a detailed quote for the radio, I wonder if we could use the one from the last upgrade.

Respectfully,

Michael Rowland, CGCIO
Director
Randolph County Information Technology
(336) 318-6314

From: Tapler, Marsha [<mailto:marsha.tapler@nc.gov>]
Sent: Thursday, February 25, 2016 7:07 PM
To: Davis, Donovan L. <Donovan.Davis@randolphcountync.gov>
Cc: Rowland, Michael T. <Michael.Rowland@randolphcountync.gov>; Taylor, Richard <richard.taylor@nc.gov>
Subject: Randolph FY2017 Funding Reconsideration Request

Hello Mr. Davis,

Please assisting with the following:

1. Please provide a more detailed time line for the final construction on the building and each of the capital purchases. Please see the attached ESHQ Procurement Schedule 2-5-16.pdf for a detailed schedule of all purchases.
2. Documentation notes 12 positions but the quote for chairs totals 18. Where are the additional chairs being used? The extra chairs will be used as spares. They will be utilized when doing communications training in the center. The chairs we purchase are also different sizes to accommodate different body types and the chairs have a ten-year full warranty.
3. Please submit console furniture workstation diagram. Please see the attached Console diagram.pdf
4. Computer workstations are over \$1000 cap. Please provide full details as to what applications are running on each station. The workstations are running Spillman CAD, Priority Dispatch ProQA, Spillman CAD Mapping and OMNIXX
5. Priority Dispatch invoice reflects 7 ProQA software licenses backup location. An approved plan must be on file before purchase. I have removed the 7 ProQA licenses from the request.
6. Intrado A911 proposal includes cost for both Randolph County Main, Archdale PD, Randolph County Backup cost. It doesn't appear at this stage Archdale PD is part of the request however, it does reflect the Backup cost which are not allowable for this reconsideration. The monthly cost should only reflect the increase over what is already paid for selective routing/trunk cost. In addition, this expense would still be considered part of the phone system so expense should be located in cell D24 and E24. The spreadsheet has been updated as requested. The backup center costs have been removed. However, this will mean that our current center will not be able to serve as a backup center after the move to the new building.
7. What additional information is provided with the Intrado MIS package that is not found in ECATS? This question help identify issues with ECATS. Per Steve deLoach with Century Link, this MIS that is listed on the quote is for Power E-Cats not a MIS System. This allows for individual agent data through E-Cats that is not currently available. See attached image.
8. Carolina Recording: GeoFence Search and View Location is not an eligible expense. Cost \$845.75 needs to be removed. The spreadsheet has been updated as requested.
9. Please provide more explanation for the use of the ports located on the MarketSpace quote. The quote includes (2) 48 port network switches. These switches will be used to provide network connectivity to the CAD workstations and other CAD equipment in the center. The switches will be configured to provide redundant ports to the entire communication center.
10. Please submit itemized detail of radio purchase.
11. Please explain the Double Radius invoice in detail as the statement noted does not fit to what is being purchased. The DoubleRadius quote includes the radio equipment and licenses necessary to build a wireless network link from the new building back to the County network. This will serve as a critical backup network link to the County fiber network. These links will be utilized to provide the network connectivity required for the new 911 phone system.
12. Have you gone through the RFP process for capital expenses? No. We will start those purchases per the schedule given in the attachment.

Since we are working on a very tight schedule, the information will be needed by Monday 02/29/2015. When submitting the requesting information, please revise the reconsideration report to only reflect primary PSAP. Moreover, exclude any documentation regarding ineligible expense as this could be misinterpreted as an approved expense if the reconsideration is approved by the Board.

Thank you,

Marsha

Marsha Tapler
Financial Analyst, North Carolina 911 Board
NC Department of Information Technology
919.754.6344 office
marsha.tapler@nc.gov
www.nc911.nc.gov



Nothing Compares

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Elite Ergonomics LLC
104 Westminster Way
Mcdonough, GA 30253

Date 2/10/2016
Estimate # 630

Name / Address

Randolph County

Description	Qty	Rate	Total
Ironhorse 3000UHD, ultra leather, ratcheting headrest, HD ergo tilt up armrests, black comp base.	9	1,407.66	12,668.94
Ironhorse 4000UHD, ultra leather, ratcheting headrest, HD ergo tilt up armrests, black comp base.	9	1,503.91	13,535.19
shipping	1	850.00	850.00

Here is the estimate, thank you very much.

Subtotal	\$27,054.13
Sales Tax (0.0%)	\$0.00
Total	\$27,054.13

Elite Ergonomics LLC

dradtke@eliteergonomics.com
www.eliteergonomics.com

404-437-6284
Fax 404-437-7616

Xybix Systems, Inc.
 8207 SouthPark Circle
 Littleton, CO 80120
 Phone:303-683-5656
 Fax:303-683-5454
 AllisonT



Quote

Quote Number: 16940

Quote Date: 12/30/2015

Revision: A

Orig Create Date: 6/3/2015

Expires: 3/29/2016

Opp #: 0009731

Page: 1 of 4

Terms: 90% Net 30; 10% Retention

Quote To:

Acct: RANCOUASNC

Randolph County 911 NC
 152-A North Fayetteville Street
 Asheboro NC 27203

Phone: 336-318-6912

Ship To: Randolph County 911 NC
 152-A North Fayetteville Street

Asheboro
 NC 27203

Sales Person: CHER ICE

Rep Phone: 919.904.3487

Email: cheri@xybix.com

HGAC Contract # ECO7-14

06-03-2015-Drawing R3-AT

PLEASE NOTE: OPTIONAL ITEMS ARE NOT INCLUDED IN THE TOTAL PRICE.

PLEASE CONTACT XYBIX TO HAVE ANY OPTIONAL ITEMS INCLUDED IN THE FINAL PRICE.

FREIGHT & INSTALLATION CHARGES WILL BE ADJUSTED ACCORDINGLY.

Xybix is not registered to collect sales tax in the state of North Carolina, and any sales tax due on your transaction will need to be paid directly by you to your State agency (this is commonly referred to as USE Tax).

Line	Part Number	Description	Qty	U/M	List Ea	Disc%	DiscPrice	Net Price
1.00	12343.	Panel System Priced by the Linear Foot: Grade 2Fabric 12343-1-SS - 42-48in - 19 LF @ 142 12343-1-DS - 42-48in - 200 LF @ 193 12344-1-SS - 65in - 0 LF @ 192 12344-1-DS - 65in - 0 LF @ 267 Upper Tiles Fabric Color: TBD Grade 2 G2 Lower Tiles Fabric Color: TBD Grade 2 G2 Panel Trim Color: Black	¹ 1.0	EA	\$41,298.00	50	\$20,649.00	\$20,649.00
1.01	12224-BLK	Panel Seg Glass 18x18W Black	² 2.0	EA	\$224.00	50	\$112.00	\$224.00
1.02	12225-BLK	Panel Seg Glass 18x24W Black	³ 30.0	EA	\$254.00	50	\$127.00	\$3,810.00
1.03	12226-BLK	Panel Seg Glass 18x30W Black	⁴ 20.0	EA	\$287.00	50	\$143.50	\$2,870.00
1.04	12227-BLK	Panel Seg Glass 18x36W Black	⁵ 12.0	EA	\$318.00	50	\$159.00	\$1,908.00
1.05	12228-BLK	Panel Seg Glass 18x42W Black	⁶ 4.0	EA	\$343.00	50	\$171.50	\$686.00
1.06	12229-BLK	Panel Seg Glass 18x48W Black	⁷ 4.0	EA	\$376.00	50	\$188.00	\$752.00
2.00	14486.	Adj. Table Worksurface - Dual Surface - Corner - 72L x 72R 10 RV-Cable Management Included	⁸ 12.0	EA	\$1,760.00	50	\$880.00	\$10,560.00

Xybix Systems, Inc.
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 Littleton, CO 80120
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 Fax:303-683-5454
 AllisonT



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Terms: 90% Net 30; 10% Retention

2.01	14498.	Adj. Table Worksurface - Dual Surface - Straight - 84W x 44D 10 RV-Cable Management Included	⁹	2.0	EA	\$1,195.00	50	\$597.50	\$1,195.00
2.02	15203	Anti-Microbial Laminate Upgrade	¹⁰	0.0	EA	\$600.00	50	\$300.00	\$0.00
		OPTIONAL Qty X 14							
3.00	11064LRG	ErgoPower X4+ Table Base - Large	¹¹	2.0	EA	\$5,070.00	50	\$2,535.00	\$5,070.00
3.01	11064LRG	ErgoPower X4+ Table Base - Large	¹²	12.0	EA	\$5,070.00	50	\$2,535.00	\$30,420.00
4.00	12645.	Monitor Mount - Rollervision - - 2HI - Straight - Dual Surface - 84W x 44D 10 RV - 12076 - Std VESA Monitor Mount Qty = 6	¹³	2.0	EA	\$3,689.00	50	\$1,844.50	\$3,689.00
4.01	12056.	Monitor Mount - Rollervision - - 2HI - Corner - Dual Surface - 72L x 72R 10 RV - 12076 - Std VESA Monitor Mount Qty = 6	¹⁴	12.0	EA	\$3,689.00	50	\$1,844.50	\$22,134.00
5.00	12904	DataDock - Keyboard Surface Cable Organizer Cables Sold Separately	¹⁵	12.0	EA	\$374.00	50	\$187.00	\$2,244.00
5.01	12904	DataDock - Keyboard Surface Cable Organizer Cables Sold Separately	¹⁶	2.0	EA	\$374.00	50	\$187.00	\$374.00
5.02	15196	Charge Only USB Upgrade for Datadock - Cables Sold Separately	¹⁷	0.0	EA	\$50.00	50	\$25.00	\$0.00
		OPTIONAL Qty X 14							
5.03	11677	Ext Cable USB Type A to Type A Panel Mount for Datadock Male/Female 5M (16.4')	²⁰	112.0	EA	\$32.00	50	\$16.00	\$1,792.00
5.04	13166	Datadock - Panel Mount RJ-45 CAT6 Coupler	²¹	28.0	EA	\$50.00	50	\$25.00	\$700.00
5.05	11816	Ext. Monitor Cable DVI-D Male/Female 5M (16' 4")	²²	84.0	EA	\$108.00	50	\$54.00	\$4,536.00
5.06	11132	Ext Audio Cable 3.5mm Jack Male/Female 25'	²³	28.0	EA	\$32.00	50	\$16.00	\$448.00
6.00	11792.	Power Bar - 10 Outlet	²⁴	28.0	EA	\$128.00	50	\$64.00	\$1,792.00
6.01	14976	6 Outlet Power Strip 25'	²⁵	10.0	EA	\$144.00	50	\$72.00	\$720.00
		OPEN MARKET							
7.00	13171	Task Light - Trillium LED Kit - Climate Control	²⁶	14.0	EA	\$598.00	50	\$299.00	\$4,186.00
8.00	15462	Dual Shelf Under Surface 19W x 9D - Metal	²⁹	14.0	EA	\$254.00	50	\$127.00	\$1,778.00
		OPEN MARKET							

Xybix Systems, Inc.
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9.00	14462	MyClimate Personal Climate Control With Forced Air Heat 1000W	³⁰	14.0	EA	\$2,730.00	50	\$1,365.00	\$19,110.00
10.00	12034.	Return Worksurface - 54Wx44D	³¹	2.0	EA	\$490.00	50	\$245.00	\$490.00
10.01	12035.	Return Worksurface - 72Wx44D	³²	2.0	EA	\$706.00	50	\$353.00	\$706.00
10.02	12035.	Return Worksurface - 84Wx36D	³³	1.0	EA	\$706.00	50	\$353.00	\$353.00
10.03	12035.	Return Worksurface - 96Wx30D	³⁴	1.0	EA	\$706.00	50	\$353.00	\$353.00
10.04	12035.	Return Worksurface - 96Wx40D	³⁵	2.0	EA	\$706.00	50	\$353.00	\$706.00
10.05	12033.	Return Worksurface - 48Wx36D	⁵³	4.0	EA	\$390.00	50	\$195.00	\$780.00
11.00	13629.	CPU Cabinet - Tech Tower 18Wx48H Single Right Access with Sliding Shelf	³⁶	3.0	EA	\$1,592.00	50	\$796.00	\$2,388.00
11.01	13629.	CPU Cabinet - Tech Tower 18Wx48H Single Right Access with Sliding Shelf	⁵¹	3.0	EA	\$1,592.00	50	\$796.00	\$2,388.00
11.02	13623.	CPU Cabinet - Under Work Surface 36Wx33D with Sliding Shelf	³⁷	6.0	EA	\$1,263.00	50	\$631.50	\$3,789.00
11.03	13625.	CPU Cabinet - Under Work Surface 42Wx33D with Sliding Shelf	³⁸	2.0	EA	\$1,347.00	50	\$673.50	\$1,347.00
12.00	13646.	Drawer Pedestal - Fixed - Dual Ped with Bookcase - 48W - 6-6-12 Drawers 22D - 6-6-12 Drawers 22D	³⁹	4.0	EA	\$2,100.00	50	\$1,050.00	\$4,200.00
12.01	12427.	Drawer Pedestal - Fixed - Dual Ped with Bookcase - 36W - 6-6-12 Drawers 22D - 6-6-12 Drawers 22D	⁴⁰	2.0	EA	\$2,000.00	50	\$1,000.00	\$2,000.00
12.02	11352.	Drawer Pedestal - Fixed - Single - 16W - 6-6-12 Drawers 22D -	⁴¹	2.0	EA	\$950.00	50	\$475.00	\$950.00
13.00	11069.	Rotating Resource Guide - Under Worksurface 40 in	⁴²	4.0	EA	\$2,354.00	50	\$1,177.00	\$4,708.00
13.01	11519.	Rotating Resource Guide - Freestanding 36 in	⁵²	1.0	EA	\$2,354.00	50	\$1,177.00	\$1,177.00
14.00	11668.	Lateral File - 36W - 2 Drawer	⁴³	2.0	EA	\$1,156.00	50	\$578.00	\$1,156.00
15.00	11765.	Bookcase - 24W-28H-22D - UnderWS W/Toekick	⁴⁴	1.0	EA	\$576.00	50	\$288.00	\$288.00

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Terms: 90% Net 30; 10% Retention

18.00	12235	Support - "L" Bracket 18"	⁴⁵	3.0 EA	\$32.00	50	\$16.00	\$48.00
18.01	14655	Wall Screw Anchor Kit	⁴⁶	3.0 EA	\$9.00	50	\$4.50	\$13.50
19.00	10176	Cup Holder - Blk	⁴⁷	14.0 EA	\$90.00	50	\$45.00	\$630.00
20.00	14645	I-Fit Software Kit ErgoPower X4 or X5 With Serial Adaptor	⁴⁸	0.0 EA	\$400.00	50	\$200.00	\$0.00
OPTIONAL Qty X 14								
90.00	12356	Installers Kit	⁴⁹	14.0 EA	\$-		\$0.00	\$0.00
99.00	OTHER	Other Charges & Services	⁵⁰	1.0 EA	\$-		\$0.00	\$0.00

Line(50) - Miscellaneous Charge -

Freight - FullTruck NonTaxable \$3,650.00

Installation - Non-Taxable \$18,945.00

List Price Total \$340,235.00

Lines Total: \$170,117.50

Line Miscellaneous Charges Total: \$22,595.00

Quote Total: \$192,712.50

Note 1:

All quoted taxes are estimated. Any applicable taxes, fees, permits, etc. must be added to this quote.

Note 2:

Where installation is listed on quote it is based in non-union labor and on one trip for installation only. Client is responsible for coordination of Technicians and other Vendors/Contractors. Waiting time will be charged at the rate of \$75 per man hour straight time and \$115 per man hour for OT plus subsistence expenses. Additionally, this quote is based upon a remodel in an existing space and/or new building - completely finished with a Certificate of Occupancy. Any project where the General Contractor is still on the job is subject to additional charges.

We appreciate this opportunity to provide this quote. Our goal is to substantially improve working conditions for your valuable staff. We look forward to meeting with you to review this proposal in detail. In the meantime please don't hesitate to call us with any questions.



Quote 1020393605404.1

RANDOLPH COUNTY

Salesperson

Salesperson Name

Kim Peterson

Salesperson Email

Kimberly_Peterson@Dell.com

Salesperson Phone

18009993355

Salesperson Extension

5139133

Quote Details

Quote Date

02/10/2016

Quote Validity

03/11/2016

Solution ID

-

Billing Details

Company Name

RANDOLPH COUNTY

Customer Number

32235655

Phone Number

1 (336) 3186304

Address725 MCDOWELL RD
ASHEBORO
NC
27205
US

Price Summary

Description	Quantity	Unit Price	Subtotal Price
OptiPlex 9020 MT CTO	1	\$1,420.43	\$1,420.43
Dell Adapter - DisplayPort to DVI Single Link	1	\$22.99	\$22.99
Subtotal			\$1,443.42
Tax			\$101.04
Shipping and Handling			\$0.00
Environmental Fee			\$0.00
Total			\$1,544.46

Note: All tax quoted above is an estimate; final taxes will be listed on the invoice.

Dear Customer,

Your quote is detailed below; please review the quote for product and information accuracy. If you find errors or desire changes, please contact me as soon as possible.

Regards,
Kim Peterson

Order this quote easily online through your [Premier page](#), or if you do not have Premier, using [Quote to Order](#)

Product Details by Shipment

Shipping Group 1

Shipping Contact:	PATRICK SKELLY	Subtotal	\$1,443.42
Shipping Phone No:	1 (336) 6838136	Tax	\$101.04
Shipping via:	Standard Ground	Shipping and Handling	\$0.00
Shipping Address:	1512 N FAYETTEVILLE ST	Environmental Fee	\$0.00
	ASHEBORO	Total	\$1,544.46
	NC 27203		
	US		

Description	Quantity	Unit Price	Subtotal Price
OptiPlex 9020 MT CTO	1	\$1,420.43	\$1,420.43

Estimated Delivery Date: 02/18/2016
Contract Code: 22AGN
Customer Agreement No: 204A

210-AATM	OptiPlex 9020 Mini Tower	1	-	-
338-BFIK	Intel Core i7-4790 Processor (Quad Core, 3.6GHz, 8MB Cache, w/HD Graphics 4600)	1	-	-
619-AHKN	Win 10 Pro 64 English, French, Spanish	1	-	-
370-AAJC	16GB (2x8GB) 1600MHz DDR3 Non-ECC	1	-	-
400-AGWY	256GB 2.5 inch Serial ATA Solid State Drive, OptiPlex	1	-	-
470-AAED	Cable for SATA HDD and 2nd HH ODD, OptiPlex	1	-	-
470-AAEF	Cable for SATA HDD, OptiPlex	1	-	-
575-BBBR	Bracket for 2.5inch HDD, OptiPlex	1	-	-
658-BCSB	Microsoft Office 30 Day Trial	1	-	-
954-3465	No DDPE Encryption Software	1	-	-
340-ADBJ	Thank You for Choosing Dell	1	-	-
490-BCEY	Dual 1G AMD Radeon R5-240 Graphics, w/DPandDVI Port, Full Height	1	-	-
429-AAED	16X Half Height DVD+/-RW Drive	1	-	-
580-AAQX	US English (QWERTY) Dell KB212-B QuietKey USB	1	-	-

	Keyboard Black			
570-AACR	Dell USB Optical Mouse MS111	1	-	-
480-ABHJ	No Monitor	1	-	-
329-BCKH	OptiPlex 9020 Minitower Chassis w/ up to 85 Percent Efficient PSU (Bronze V2)	1	-	-
412-AAAV	Mini Tower, Chassis Performance Heatsink (95watts)	1	-	-
387-BBCG	No ESTAR	1	-	-
696-BBBC	No Special BIOS Setup Required	1	-	-
461-AAAZ	Chassis Intrusion Switch	1	-	-
631-AABI	Intel vPro Technology Enabled	1	-	-
389-BBWO	Intel Core I7 vPro Label	1	-	-
817-BBBN	NO RAID	1	-	-
340-ADBJ	Thank You for Choosing Dell	1	-	-
429-AAHB	No Optical Drive	1	-	-
555-BBFO	No Wireless	1	-	-
555-BBFO	No Wireless	1	-	-
555-BBKH	No Bcom required	1	-	-
382-BBBZ	No Add On Card	1	-	-
551-BBBJ	No Intel Responsive	1	-	-
450-AAOJ	System Power Cord (Philippine/TH/US)	1	-	-
470-AAJL	NO ADAPTER	1	-	-
520-AABP	Internal Dell Business Audio Speaker	1	-	-
429-AAGQ	PowerDVD Software not included	1	-	-
620-AAYW	Windows 10 OS Professional Recovery 64bit - DVD	1	-	-
340-AJFC	Kickstart Product Registration	1	-	-
422-0008	Dell Data Protection System Tools Digital Delivery/DT	1	-	-
525-BBCL	SupportAssist	1	-	-
640-BBLW	Dell(TM) Digital Delivery Cirrus Client	1	-	-
658-BBMQ	Enable Low Power Mode	1	-	-
658-BBMR	Dell Client System Update (Updates latest Dell Recommended BIOS, Drivers, Firmware and Apps),OptiPlex	1	-	-
658-BBNH	Waves Maxx Audio	1	-	-
658-BCUV	OS Recovery	1	-	-
340-ABJI	No Diagnostic/Recovery CD media	1	-	-
340-ADBJ	Thank You for Choosing Dell	1	-	-
650-AAHJ	No Anti-Virus software	1	-	-
340-ADBJ	Thank You for Choosing Dell	1	-	-
340-ABKW	No Quick Reference Guide	1	-	-
340-ABKW	No Quick Reference Guide	1	-	-
389-BCCV	Regulatory Label	1	-	-
340-ABVE	Shipping Material for System,Minitower,Dell OptiPlex	1	-	-
332-1286	US Order	1	-	-
634-BENZ	No DDP ESS Software	1	-	-
989-3449	Thank you choosing Dell ProSupport. For tech support, visit http://support.dell.com/ProSupport or call 1-866-516-3115	1	-	-
997-6870	Dell Limited Hardware Warranty Plus Service	1	-	-
997-6898	ProSupport: Next Business Day Onsite 5 Years	1	-	-
997-6918	ProSupport: 7x24 Technical Support, 5 Years	1	-	-
980-7554	Keep Your Hard Drive, 5 Year	1	-	-

Description	Quantity	Unit Price	Subtotal Price
Dell Adapter - DisplayPort to DVI Single Link	1	\$22.99	\$22.99

Estimated Delivery Date: 02/16/2016
Contract Code: 22AGN

330-2915	DisplayPort to DVI (1920x1200)Adapter for Dell Systems Optiplex,Customer Install	1	-	-
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Important Notes

Terms of Sale

This quote is valid for 30 days unless otherwise stated. Unless you have a separate written agreement with Dell that specifically applies to this order, your order will be subject to and governed by the following agreements, each of which are incorporated herein by reference and available in hardcopy from Dell at your request:

If this purchase is for your internal use only: Dell's Commercial Terms of Sale (<http://www.dell.com/CTS>), which incorporate Dell's U.S. Return Policy (www.dell.com/returnpolicy) and Warranty (www.dell.com/warrantyterms).

If this purchase is intended for resale: Dell's Reseller Terms of Sale (www.dell.com/resellerterms).

If this purchase includes services: in addition to the foregoing applicable terms, Dell's service contracts and related service terms (www.dell.com/servicecontracts/global).

If this purchase includes software: in addition to the foregoing applicable terms, your use of the software is subject to the license terms accompanying the software, and in the absence of such terms, then use of the Dell-branded application software is subject to the Dell End User License Agreement - A Version (www.dell.com/AEULA) and use of the Dell-branded system software is subject to the Dell End User License Agreement - S Version (www.dell.com/SEULA).

You acknowledge having read and agree to be bound by the foregoing applicable terms in their entirety. Any terms and conditions set forth in your purchase order or any other correspondence that are in addition to, inconsistent or in conflict with, the foregoing applicable online terms will be of no force or effect unless specifically agreed to in a writing signed by Dell that expressly references such terms.

Pricing, Taxes, and Additional Information

All product, pricing, and other information is valid for U.S. customers and U.S. addresses only, and is based on the latest information available and may be subject to change. Dell reserves the right to cancel quotes and orders arising from pricing or other errors. Please indicate any tax-exempt status on your PO, and fax your exemption certificate, including your Customer Number, to the Dell Tax Department at 800-433-9023. Please ensure that your tax-exemption certificate reflects the correct Dell entity name: **Dell Marketing L.P.** Note: All tax quoted above is an estimate; final taxes will be listed on the invoice. If you have any questions regarding tax please send an e-mail to Tax_Department@dell.com.

For certain products shipped to end-users in California, a State Environmental Fee will be applied to your invoice. Dell encourages customers to dispose of electronic equipment properly.

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- **Clearly outstanding:** Watch your graphics come to life on a vast 24" (61cm) LED-backlit screen featuring a crystal-clear 1920x1200 resolution on a 16:10 widescreen aspect ratio so you can't lose screen area just because your customized applications support a different resolution.
- **Contrasting view:** Get ready for blur-free viewing with 2 million:1 (typical) high dynamic contrast ratio and 8ms with overdrive gray-to-gray (typical) response time that helps ensure crisp, sharp and ghost-free images.
- **Colorful character:** Enjoy an amazing range of rich, dramatic and accurate colors, thanks to IPS technology designed to give you color consistency across a broad viewing angle and a wide color gamut at 82% (typical).
- **Premium Panel Guarantee:** 100% replacement of Dell UltraSharp series monitors sold if any bright pixel is found, valid within the warranty¹ period.



Your monitor, your style.

The ultimate in flexibility and customizability, the U2412M monitor can be adjusted to suit your workspace, tailored to suit your viewing preferences, and with its wide viewing angle, it can be viewed from almost any position.



Height adjustability: Raise or lower the U2412M to suit your workspace and your personal style with 4.5" of height adjustability.



Versatile connectivity: Connect a keyboard, mouse and other peripherals via USB ports, DisplayPort and DVI ports that can deliver outstanding image quality when viewing HD content.

Dell U2412M

4/5 stars and Editors' Choice Award — CNET

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Maximum flexibility: Position your monitor just the way you like with comfort-enabling features like tilt, swivel and rotate. IPS (in-plane switching) technology helps ensure a great view from almost any angle.



Supreme adaptability: Make colors cooler or warmer to suit your preference with the color temperature slider, while 'Text mode' automatically adjusts screen brightness to 150 nits, ideal for reading text.

Compare the U2412M monitor with similar monitors

	[Now Viewing] Monitor U2412M	Monitor U2415	Monitor U2414H
			
Screen Size (diagonal)	24"	24.1"	23.8"
Optimal Resolution	1920 x 1200 @ 60hz	1920x1200 @ 60hz	1920 x 1080 @ 60hz
Screen Type	IPS, anti glare	IPS, anti glare	IPS, anti glare
DVI	1 DVI-D	-	-
VGA	1 VGA	-	-
HDMI	-	2 HDMI (MHL)	2 HDMI (MHL)
DisplayPort	1 DisplayPort	1 Mini DisplayPort 1 DisplayPort (v1.2) 1 DisplayPort out	1 Mini DisplayPort 1 DisplayPort (v1.2a) 1 DisplayPort out (MST)
Speakers	-	-	-
USB	1 USB 2.0 upstream 4 USB 2.0 downstream	1 USB 3.0 upstream 5 USB 3.0 downstream	1 USB 3.0 upstream 4 USB 3.0 downstream
Response Time	8ms typical	Fast Mode: 6ms Normal Mode: 8ms	8ms typical
VESA Mountable?	✓	✓	✓
Viewing Angle (vertical/horizontal)	178 / 178	178 / 178	178 / 178
Media Card Reader	-	-	-
Warranty ¹ Length	3 Year	3 Year	3 Year
Premium Panel Guarantee	✓	✓	✓
Free Shipping & Easy Returns	✓	✓	✓
Price Info	Market Value ² Instant Savings \$369.99 \$50.00 Dell Price \$319.99	Dell Price \$399.99	Dell Price \$339.99
Add to Cart	Add to Cart	Add to Cart	Add to Cart
View Full Tech Specs	Back to top	View Full Details	View Full Details

Designed with the environment in mind.

Your workspace isn't the only environment that can benefit from the U2412M.

**Environmental compliance:**

The U2412M meets ENERGY STAR® 5.1, EPEAT Gold and TCO Certified Displays 5 standards, and is also CECP and CEL compliant.

**Power management:**

PowerNap² allows you to control monitor brightness level or to put it in sleep mode to conserve power, and Dynamic dimming¹ software automatically dims onscreen brightness when displayed images are overly bright or white. You can even activate the energy usage bar to see the U2412M's energy consumption.

**Responsible construction:**

The U2412M is made of environmentally responsible materials, consisting of an arsenic-free and mercury-free LED panel and halogen-free laminates in its circuit boards, designed to consume less energy than a conventional monitor.

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snNP02

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Dell Stereo Soundbar - AX510



The Dell™ AX510 SoundBar is only powered from a Dell UltraSharp or Professional series monitor and does not come with a separate power adapter. This stereo soundbar is a good choice for improving the quality of ...

[Full Description](#)

Dell Price**\$34.99**[Add to Cart](#)

Usually Ships: in 24 hours

[Free Shipping & Returns](#)[Price Match](#)[★ 10% Back in Rewards*](#)[Compatibility](#)[What's in the Box](#)

Manufacturer Part#: K512C | Dell Part#: 313-6412

[Overview](#)[Tech Specs](#)[Glossary And Resource](#)

Highlights

- Full, rich stereo sound
- Features lightweight, elegant design
- Attaches easily to select UltraSharp and P Series Flat Panel Displays
- Sleek, low profile design
- 2 x 5 W per channel stereo
- 2 x headphone jacks
- Does not come with a separate power adapter

Compatible with the following Dell Monitor models:

P2213	U2412M	U2413	U2913WM
U3014			

Overview

The Dell™ AX510 SoundBar is only powered from a Dell UltraSharp or Professional series monitor and does not come with a separate power adapter. This stereo soundbar is a good choice for improving the quality of multimedia presentations, online training / Web casts, music listening, gaming, and DVD playback on your system. This lightweight, elegantly designed sound bar can be easily attached to your Dell Flat Panel Monitor. This product has been tested and validated on Dell systems. It is supported by Dell Technical Support when used with a Dell system.

Manufacturer Part#: K512C
Dell Part#: 313-6412

Compatibility

This product is compatible with the following systems:

Adamo 13
Adamo XPS
Alienware Area - 51
Alienware Area - 51 ALX
Alienware Aurora
Alienware Aurora ALX
Alienware Aurora R2
Alienware Aurora R3
Alienware M11x
Alienware M11x R2
Alienware M11x R3
Alienware M14x

Similar Products

You might also consider...

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You might also consider...

**Dell**[Dell 2.1 Bluetooth Speaker System \(33W\) - AC411](#)**Dell Price \$79.99**[Customize It](#)

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[snNP01](#)

Quantity **Item**

- 12 Dell Optiplex 9020 Mini Tower, Win 10 Pro, with Dual Video Cards
- 24 Dell UltraSharp 24 inch Monitor-U2412M
- 12 Dell Stereo Soundbar AX510
- 12 MS Windows Server 2012 Device CAL

Total Cost Estimate

<u>Cost per Item</u>	<u>Total Per Item</u>
----------------------	-----------------------

\$1,443.42	\$17,321.04
------------	-------------

\$319.99	\$7,679.76
----------	------------

\$34.99	\$419.88
---------	----------

\$19.22	\$230.64
---------	----------

	\$25,651.32
--	-------------



Sales Quote #125172

by Tim Martin

Date 2/10/2016

110 South Regent Street, Suite 500
Salt Lake City, UT 84111
(801) 363-9127 * (801) 363-9144 fax
(800) 363-9127 toll-free

Bill To: Randolph County Emergency Service
Attn: Sheri Martin
152 N Fayetteville St
Asheboro, NC 27203

Ship To: Randolph County Emergency Service
Attn: Sheri Martin
152 N Fayetteville St
Asheboro, NC 27203

For: Randolph County Emergency Service
Attn: Sheri Martin
152 N Fayetteville St
Asheboro, NC 27203

Phone: 336-318-6912 Fax:

Qty	Description	Unit Price	Extended Price
5	ProQA Software Licenses (Medical - Paramount - Standard - North American English) Automated calltaking software	\$3,500.00	\$17,500.00
7	ProQA Software Licenses - backup (Medical - Paramount - Standard - North American English) Offsite, backup location software	\$1,750.00	\$12,250.00
1	Annual Maintenance/Support - ESP (G) License renewal, service and support	\$3,795.00	\$3,795.00
Sub-Total:			\$33,545.00
Tax:			\$0.00
Shipping & Handling:			\$40.00
Total:			\$33,585.00

This quote is valid for 120 days from date of issue. Unless otherwise agreed to in writing, all prices quoted are exclusive of any applicable sales, use, withholding and other taxes, duties, or government assessments relating to this transaction, which are the sole obligation of Buyer. Payment terms are Net 30 unless otherwise noted.

Seller will use reasonable efforts to deliver products on time, but will not be liable for any expenses or damages incurred as a result of late delivery or for circumstances beyond Seller's reasonable control. Shipments are made F.O.B. origin, which is Salt Lake City, UT, USA. All insurance expenses and risk of loss are assumed by Buyer.

Purchasing or signing below acknowledges your agreement to the terms above and to the "break the seal" or "click to accept" license agreement associated with the licensed product(s). The license agreement is included with the licensed product(s) and you will have the opportunity to read it before opening or installing. If unacceptable, you may return the licensed product(s) within 10 days of receipt for a refund, less any applicable restocking fees and original shipping charges.

Sign here X _____ Date _____

Payment Method: (Check enclosed, or...)

☐ Purchase Order # _____

☐ VISA/MasterCard/AMEX # _____

Expiration: _____

"To lead the creation of meaningful change in public safety and health."

Quote and Purchase Addendum

Quoted Date:	February 16, 2016	Quote Number:	QUO-09379-R0L4V2
Quote Expiration Date:	March 31, 2016	Prepared By:	Skyeler King

Services Included

- **First-year Maintenance** – For the specific module(s) listed in this document, all upgrades and live phone support services are included for the entire first year.
- **Project Management and Installation** – Spillman will assign a Project Manager as the agency's single point of contact. This individual will coordinate Spillman's expert installation and training staff as needed to ensure a smooth upgrade transition.

Included in Quote

- CAD Mapping - 12 Seat License(s)

Package Quote

\$27,928

Sales tax included.

Future Maintenance

- 2nd-year maintenance charges will begin 12 months from the date of contract execution listed below.
- Future maintenance is estimated for your planning purposes and is not included in this purchase.

2nd-year Maintenance Total: \$4,596

The Customer's signature below constitutes its agreement to purchase the licenses, products and/or services according to the terms quoted by Spillman within this document. This document shall serve as an addendum to the Purchase Agreement previously entered into between the Customer and Spillman. The terms and conditions of the Purchase Agreement, as well as the related License Agreement and Support Agreement, shall apply to the items quoted herein.

Quote and Purchase Addendum

Quoted Date:	February 16, 2016	Quote Number:	QUO-09379-R0L4V2
Quote Expiration Date:	March 31, 2016	Prepared By:	Skyeler King

Randolph County Public Safety

Customer Name

Date

Authorized Signature

Print Name and Title

Rowland, Michael T.

From: Buxton, Justine M.
Sent: Tuesday, January 12, 2016 1:50 PM
To: Davis, Donovan L.; Rowland, Michael T.; Bell, Jonathan M.
Subject: FW: Budgetary Quote for MCC5500 and consollettes in new ES HQ

Budgetary Quote for MCC5500 and consollettes in new ES HQ

Two different budgetary amounts below:

Total Budgetary Quote For MCC5500 Radio System	\$525,000.00 (9-1-1 Fund Allowable)
Total Budgetary for Radio Consollettes	\$316,500.00 (not 9-1-1 Fund Allowable)

Justine Buxton
Technology Officer
Randolph County Emergency Services
152 North Fayetteville Street
Asheboro, NC 27203
(336)318-6912
justine.buxton@randolphcountync.gov

From: John Briggs [mailto:jbriggs@amerizon.com]
Sent: Tuesday, January 12, 2016 11:23 AM
To: Buxton, Justine M.
Subject:

Justine: This is what I have:

12 Position Motorola Solutions "MCC5500" Radio dispatch Console	\$400,000.00
1 year 24/7 warranty	\$ 25,000.00
Installation Serves Tech Support and Optomization	\$100,000.00
 TOTAL BUDGETARY QUOTE FOR CONSOLES	 \$525,000.00

The Budgetary for the 35 Consollettes (5 Virtual) .

30 "APX7500" Consollettes	\$185,000.00
5 'APX75000" FOR VIRTUAL CONTROL	\$ 27,500.00
3 Hybrid 12 Channel Control Station Combiners	\$ 65,000.00
11 Antenna Systems	\$ 22,000.00
1 Installation of 35 Control Stations with ant.	\$ 17,000.00

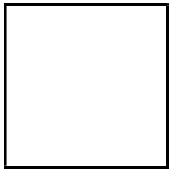
Total Budgetary for Radio Equipment	\$316,500.00
-------------------------------------	--------------

I will be working on getting a formal quote to you by the middle of February.

Call me with any questions.

--

John Briggs



Motorola Solutions Mfg. Rep.

Amerizon Wireless

Direct Line: (910) 728 - 4184

Cell: (910) 237 - 2635



Randolph County E911 Center Viper Hosted Solution Description



intrado®

1.1 Solution Overview

The i3G package is a standards-based public safety class suite of services which migrate CenturyLink's A9-1-1 Customer PSAPs off of their current legacy CPE, selective routing and ALI service to an ESINet based IP routing and data delivery service, and then based on a mutually agreeable Randolph County transition plan, continue to migrate forward on the future path of NENA i3 functions and interfaces.

The CenturyLink/Intrado i3G package includes transitioning a jurisdiction or PSAP to the CenturyLink/Intrado A9-1-1 Service. CenturyLink/Intrado will also provide services that assist the 9-1-1 jurisdiction and PSAP entities in the gathering and/or management of GIS data for location, validation, routing, and first responder identification to prepare for migration to i3. Additionally, CenturyLink/Intrado will provide an i3 upgrade to the End User's A9-1-1 Routing and A9-1-1 Location Data Management services.

1.2 i3G A9-1-1 Services

i3G services is a suite of services offered as a bundle to Randolph County PSAPs. The i3G suite of services includes:

- ✓ A9-1-1 Routing - IPSR ESN based transitioning to i3 GIS based Services
- ✓ Location Management Services – Tabular MSAG based transitioning to i3 GIS based Management
- ✓ A9-1-1 VIPER – RFAI SIP transitioning to i3 SIP interfaces
- ✓ A9-1-1 TXT29-1-1 for Power 9-1-1
- ✓ A9-1-1 MapFlex
- ✓ Training
- ✓ Project Management
- ✓ CAD Integration Services

1.3 NENA i3 Support

The A9-1-1 i3 Services will provide Randolph County PSAPs with IP-based call routing services compliant with i3 functionality as referenced in the NENA Detailed Functional and Interface Standards 08-003 v1, June 14, 2011 ("i3 Reference Architecture"). As the i3 Reference Architecture is updated or modified CenturyLink and CenturyLink/Intrado will mutually discuss such updates or modifications and determine feasibility and impact of providing such updates or modifications to the Randolph County PSAPs such that no incremental charges will be incurred as it relates to the i3G Services.

The i3 Services include;

- ✓ Routing calls, text and enhanced data utilizing i3 functional elements and open standard protocols, as defined in the i3 Reference Architecture. These functions include the call routing

components (LNG, ESRP, ECRF) as well as the GIS data provisioning components (SIF, LVF, LIS, and CIDB)

- ✓ Providing a network supporting delivery of 9-1-1 voice and text via SIP/PIDF-LO to the PSAP. The network will also deliver supplemental data notification with supporting service as defined the i3 Reference Architecture.
- ✓ Providing A9-1-1 VIPER Services that support the i3 Reference Architecture.
- ✓ Enabling enhanced data services at the PSAP, including text to 9-1-1 delivery, and enhanced data compliant with the i3 Reference Architecture.

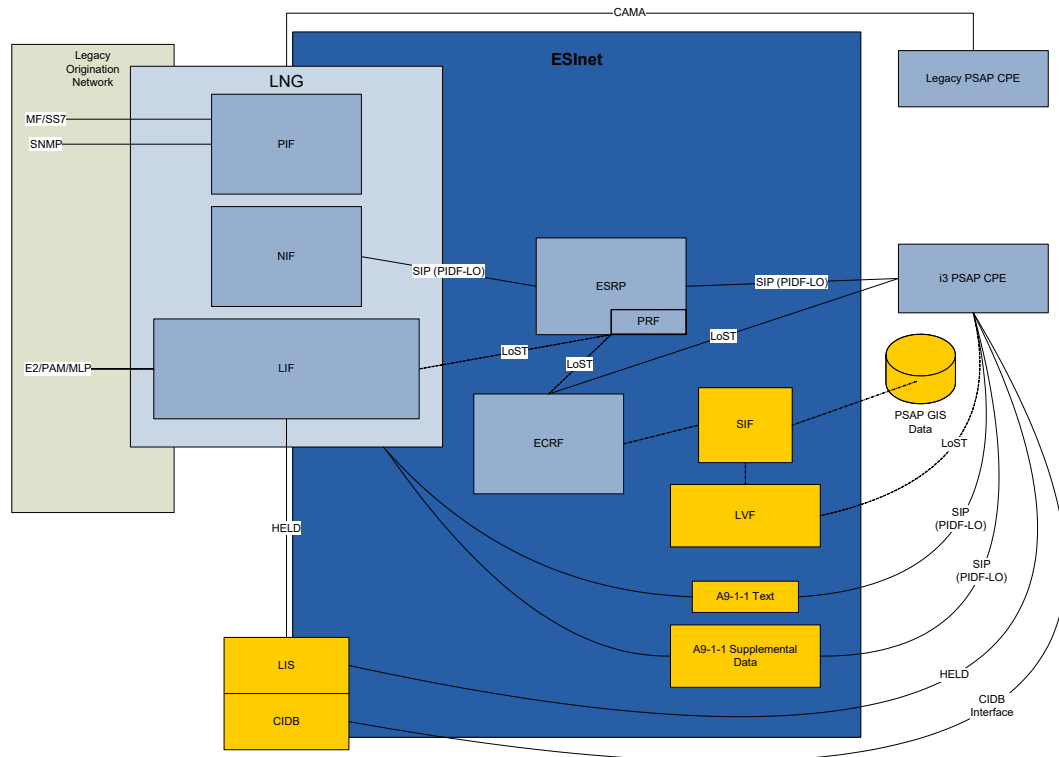


Figure 1 – i3G Logical Architecture Diagram

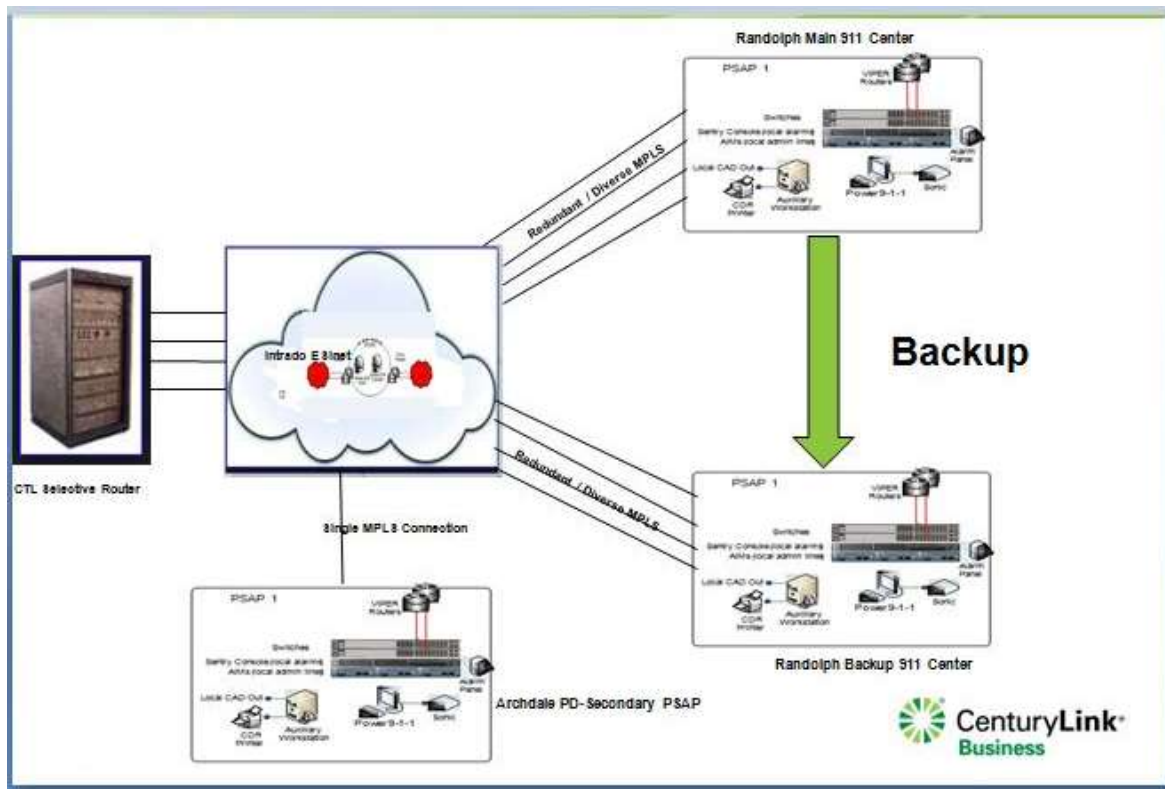


Figure 2 – Randolph County Network Diagram

1.4 Development of Transition Plan

CenturyLink/Intrado will work with Randolph County to develop a transition plan for Randolph County to migrate to the A9-1-1 i3 based Services from the initially deployed A9-1-1 Routing ESN based services. The transition plan will outline the following key objectives and deliverables, and will be mutually agreed on prior to implementation:

- ✓ Plan to support each of the functions identified in this Service Guide and/or the i3 Reference Architecture onto Customer-provided ESN
- ✓ Analyze Customer-provided GIS data for GIS data management migration to support GIS-based call routing for voice, text and data services
- ✓ Collaborate on implementation schedule with i3 functions supported
- ✓ Define Customer and CenturyLink/Intrado responsibilities
- ✓ Key project management contact information

1.5 Point of Contact

CenturyLink/Intrado will provide a Program Manager for Randolph County E911 Center. The Program Manager will act as the Single Point of Contact (SPOC) for the 9-1-1 services, the A9-1-1 planning and deployment phases.C.

CenturyLink/Intrado will also provide a Project Manager for Randolph County and key contacts for technical, operational, and managerial personnel.

CenturyLink/Intrado will provide Randolph County with key contacts for technical, operational, and managerial personnel.

1.6 Project Management and Project Plan

CenturyLink/Intrado will provide project management for all CenturyLink/Intrado A9-1-1 Service responsibilities under this Project. CenturyLink/Intrado will co-ordinate with Randolph County in developing an integrated A9-1-1 Services project plan for transition activities. The A9-1-1 Services project plan will include milestones for each project phase and will be updated over the course of the project as mutually agreed upon by both parties. Upon start of the project, a formal project kickoff will occur, including the start of the technical design and project planning phases to further define the scope of this project. Design and planning will be conducted in collaboration with Randolph County, and a key output of this phase will be a project plan with deliverable date targets as agreed upon between CenturyLink/Intrado and Randolph County. Additional assumptions, constraints, milestones and deliverables may be identified as part of this process; the project plan will be adjusted accordingly.

CenturyLink/Intrado will provide support personnel to complete all responsibilities of this project.

CenturyLink/Intrado will provide support personnel to complete CenturyLink/Intrado responsibilities in a timely manner as set forth in the project plan. CenturyLink/Intrado will be responsible for all travel expenses for CenturyLink/Intrado personnel.

1.7 Responsibility Matrix

The following matrix outlines the responsibilities of each party for the A9-1-1 Solution. Where both parties have been listed, the first-named party is lead, and this Project Plan more specifically defines the responsibilities of each party.

Task	Responsibility
<u>Project Implementation</u>	
Project Management	CenturyLink/Intrado
Project Plan for A9-1-1 Solution	CenturyLink/Intrado
TSP Agreements	CenturyLink/Intrado
TSP Communications	CenturyLink/Intrado
Randolph County facility Project Survey for CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment	CenturyLink/Intrado
A9-1-1 System Architecture	CenturyLink/Intrado
End Office Trunks, and Selective Router connectivity to CenturyLink/Intrado POI	CenturyLink/Intrado
Connectivity from CenturyLink/Intrado Local POI to CenturyLink/Intrado RGW	CenturyLink/Intrado
Develop Operations and Procedures Manual for (s)	CenturyLink/Intrado

Task	Responsibility
Co-location facilities for A9-1-1 Services systems	CenturyLink/Intrado
Redundant Ethernet Connectivity between CenturyLink/Intrado LNG and ECMC facilities	CenturyLink/Intrado
Redundant MPLS Connectivity between the ECMCs and each Randolph County Facility– Establish and test connectivity	CenturyLink/Intrado
CenturyLink/Intrado A9-1-1 Routing Network - Establish and test connectivity	CenturyLink/Intrado
Randolph County facilitySite Preparation (floor space, power, etc.)	CenturyLink/Intrado
Randolph County Facilities	CenturyLink/Intrado
Randolph County facilityProject and Site Survey for CenturyLink/Intrado A9-1-1 PSAP Equipment	CenturyLink/Intrado
Project Survey Analysis and Report	CenturyLink/Intrado
Site Readiness as addressed in Project Survey Analysis and Report	CenturyLink/Intrado
PSAP Data Collection, Configurations/Lists - Routing, Transfer, etc.	CenturyLink/Intrado
CenturyLink/Intrado A9-1-1 PSAP Equipment – Provide, Stage, Install and Maintain at Facility	CenturyLink/Intrado
PSAP Call Handling Equipment (CPE)	CenturyLink/Intrado
A9-1-1 Training	CenturyLink/Intrado
Pre-production and End to End Testing	CenturyLink/Intrado
Develop Migration plan and execute Migration Testing	CenturyLink/Intrado
A9-1-1 Routing Production Turn-up	CenturyLink/Intrado/
<u>Ongoing Responsibilities</u>	
TSP Communications	CenturyLink/Intrado
Data Management and Address Correction	CenturyLink/Intrado
Metrics Reporting	CenturyLink/Intrado
A9-1-1 Routing– Monitoring and Maintenance	CenturyLink/Intrado
Network Monitoring and Maintenance – CenturyLink/Intrado A9-1-1 Routing Network	CenturyLink/Intrado
A9-1-1 Upgrades	CenturyLink/Intrado
A9-1-1 Routing Log storage and backups	CenturyLink/Intrado
Problem Reporting	CenturyLink/Intrado
Problem Triage and Resolution	CenturyLink/Intrado
CenturyLink/Intrado A9-1-1 Network Capacity Management	CenturyLink/Intrado

Table 1 Responsibility Matrix

1.8 CenturyLink/Intrado A9-1-1 PSAP Equipment

CenturyLink/Intrado will maintain ownership of all A9-1-1 Services equipment at CenturyLink Customer A9-1-1 PSAPs. CenturyLink/Intrado may, at its discretion, remove, replace or upgrade A9-1-1 Routing PSAP Equipment as needed. CenturyLink/Intrado will work to schedule any necessary upgrades. CenturyLink/Intrado will provide insurance for all A9-1-1 Routing PSAP Equipment.

1.9

1.10 System Testing and Production Migration

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will work with Randolph County to mutually agree on a Testing and Production Migration Plan. The Testing and Production Migration plan will cover pre-production pre-migration end to end testing and production testing with Randolph County as described below, and deployment. During non-live testing, technical support will be provided during CenturyLink/Intrado Normal Business Hours. System testing and the production migration for Randolph County will be implemented according to the agreed upon project plan.

CenturyLink/Intrado will work with each TSP to complete the trunk migration and support testing of A9-1-1 Services to Randolph County in accordance with the detailed project plan.

Randolph County will assist CenturyLink/Intrado in the execution of the System Migration Testing upon request per the detailed project plan to:

- ✓ Answer the test calls
- ✓ Join conference bridges
- ✓ Provide appropriate test call screen prints and/or voice recordings to CenturyLink/Intrado upon request
- ✓ Provide test call feedback on voice quality, functionality, and other information

In accordance with the CenturyLink A9-1-1 Customer's requirements, Randolph County and CenturyLink/Intrado will agree on the date and timing of the production turn-up for each Randolph County PSAP.

2. i3G A9-1-1 SERVICES

This section details the individual A9-1-1 Services including features, functions and operational characteristics and responsibilities.

2.1 A9-1-1 i3 and ESN Routing

The i3G Services transitions Randolph County from legacy selective routing to ESN based A9-1-1 Routing and then later to A9-1-1 i3 based routing services both leveraging a fully managed IP ESInet.

2.1.1 A9-1-1 i3 Based Routing

The A9-1-1 i3 Services includes the following i3 functional routing elements, per the i3 Reference Architecture, to support voice and location data routing and delivery:

- ✓ Border Control Function (BCF), which allows communication between external ESInets and the CenturyLink/Intrado ESInet

- ✓ Legacy Network Gateway (LNG), which transforms ingress 9-1-1 voice, text and enhanced data traffic from legacy network interfaces to i3 Presence Information Data Format – Location Object (PIDF-LO) protocol
- ✓ Emergency Service Routing Proxy (ESRP), which determines the next routing destination based on queries to the ECRF for delivery of call to i3 PSAP
- ✓ Emergency Call Routing Function (ECRF), which contains PSAP's GIS routing boundaries for call routing of 9-1-1 calls, and responding agency GIS layers (police, fire, medical)
- ✓ Policy Routing Function (PRF), which identifies the call routing rules for each PSAP

2.1.2 A9-1-1 Routing ESN Based

A9-1-1 Routing supports ESN based routing and delivery of 9-1-1 calls from both traditional and next generation voice networks to s, and provides means of identifying and tracking all traffic delivered to s.

The A9-1-1 Routing Service includes redundant applications and systems operated and managed by CenturyLink/Intrado in regional data center facilities. The services include Points of Interconnection for ingress 9-1-1 voice traffic from CenturyLink and third party networks and egress of 9-1-1 voice traffic and data to CenturyLink's Multiprotocol Label Switching (MPLS) network services for delivery as an end-to-end A9-1-1 Routing Solution to PSAPs.

2.1.2.1 A9-1-1 Routing Features

CenturyLink/Intrado will provide and maintain redundant, geographically separated systems and facilities for A9-1-1 Routing, including the RGWs, the A9-1-1 Network, and the ECMC equipment shown in Figure 1. A9-1-1 Routing will provide each PSAP with the following features.

9-1-1 Routing supports connectivity via any of the following legacy and IP network interfaces for handoff and transfers of 9-1-1 voice calls from TSP End Offices, neighboring Selective Routers, and VoIP/Converged provider networks.

9-1-1 Call Signaling Type	Call From TSP	Call from Selective Router
PRI/NI-2 (wireline, NCAS)	Yes	No
DS1 CAMA I+7 (I always = 0)	Yes	Handoff – Yes, Transfer - No
DS1 CAMA 7 (No I digit)	Yes	Handoff – Yes, Transfer - No
SS7 Wireline/NCAS (10 digits)	Yes	Yes
SS7 CAS/HCAS (20 digits)	Yes	Yes

2.1.2.2 Configurable Routing

9-1-1 Routing service allows custom call routing rules to be configured for Randolph County as follows:

- ✓ **Selective Routing:** Routing rules are based upon the calling party ANI. Routing is currently determined based upon the ANI and Electronic Switching System Identification ("ESSID") match to an ESN.
- ✓ **Trunk Only Routing:** All calls received over a given trunk group are routed according to the same rules. In effect, Selective Routing is not applied. The incoming End Office trunk is assigned an ESN/ESSID, which determines the routing destinations.
- ✓ **PSAP Abandonment Routing:** Specific routing instructions to be applied if Randolph County must evacuate the facility.
- ✓ **Alternate Routing:** Specific routing instructions to be applied as alternate location for routing if the primary destination cannot be reached. For example, if all lines to the primary PSAP are busy, or the primary PSAP is closed for a period of time. Up to ten (10) prioritized alternate route destinations can be supported.
- ✓ **Default Routing:** Specific default routing instructions to be applied for each incoming trunk group. 9-1-1 calls are routed to the default destination if another routing rule, such as selective routing, could not be completed. For example, an ANI failure, unintelligible digits received from end office, the ANI not being found in the selective routing database, or other rare causes.
- ✓ **PSAP Destinations and Route Lists:** Randolph County will be able to specify a unique route list for each routing rule. These route lists allow for designation of a primary target for call routing and includes numerous prioritized alternate destinations such as:
 - Randolph County PSAP served by A9-1-1 Routing
 - PSAP served by a non-CenturyLink/Intrado selective routing service
 - PSTN number
 - Busy
 - Treatment message
 - Tone
- ✓ **PSAP Trunk Group Management:** Each incoming trunk group is individually designated to carry a particular call type and/or combination of call types (wireless, wireline, VoIP). Randolph County PSAP may submit a service request to have these call type designations changed. Changes in trunk group management shall only be implemented by CenturyLink or CenturyLink/Intrado.

2.1.2.3 Call Transfer/Bridging Capability

A9-1-1 Routing supports the following flexible transfer and bridge capabilities for Randolph County to support star code transfers through the PSAP CPE.

- ✓ **Selective Transfer/Bridge:** The ability for the call taker to transfer an incoming NG9-1-1 call to another agency by pressing a button labeled with the type of agency; e.g., "Fire," on the Power 911 Workstation.
- ✓ **Fixed Transfer/Bridge:** The ability for the call taker to use a single button on the call taker's display and transfer unit to complete either a transfer or three-way conference.
- ✓ **Manual Transfer/Bridge:** The ability for the call taker to complete a manual transfer.

2.1.3 A9-1-1 Routing Call Flow

A9-1-1 Routing flows for incoming and transferred 9-1-1 voice calls are currently as follows. Each 9-1-1 call enters the A9-1-1 Routing network from an CenturyLink/Intrado Local POI at the CenturyLink Selective Router location or an CenturyLink/Intrado RGW POI at the A9-1-1 Routing Regional Gateway (RGW) in the CenturyLink Data Center. The 9-1-1 voice call is routed by the A9-1-1 Routing Regional Gateway (RGW) to the A9-1-1 Routing ECMC. Based on the ANI and configured routing or transfer/bridge rules, the 9-1-1 Routing Emergency Call Router (ECR) within the ECMC determines the Routing Instructions and routes the 9-1-1 voice call to the CenturyLink MPLS Network for delivery to the A9-1-1 PSAP Equipment at the appropriate Facility. The call is then passed to the A9-1-1 VIPER that routes the 9-1-1 voice call to the workstation of an available call taker.

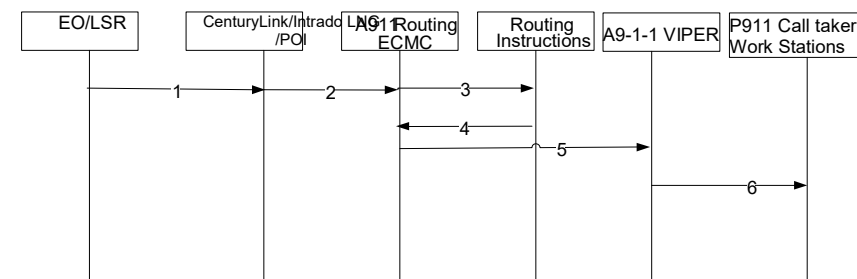


Figure 3 A9-1-1 Routing Call Flow for Incoming A9-1-1 Calls

Call Flow: 9-1-1 Call Routing

1. End office/legacy Selective Router delivers call to the CenturyLink/Intrado POI/LNG.
2. CenturyLink/Intrado POI sends call via LNG to A9-1-1 Routing ECMC serving as a SIP Proxy.
3. A9-1-1 Routing ECMC queries tables for call routing instructions.
4. Routing instructions are determined.
5. A9-1-1 Routing ECMC routes call to A9-1-1 VIPER Service located at CenturyLink/Intrado Data Center and then to the CenturyLink A9-1-1 PSAP via CenturyLink/Intrado MPLS network.
6. A9-1-1 VIPER Service passes call to Randolph County PSAP Power9-1-1 Workstation.

2.1.4 A9-1-1 Routing - Network Routing and Security

MPLS services are used to provide connectivity between Randolph County and CenturyLink/Intrado ECMC sites. Any endpoint attached to a given MPLS VPN instance can be configured to reach any other endpoint.

CenturyLink/Intrado requires Randolph County PSAP sites to use at least two MPLS instances for connectivity. These may be separate VRF instances within a single MPLS provider's network or VRFs from two separate MPLS providers.

At least two MPLS vendors will be used to enable separate VRFs to be provisioned to avoid any fate-sharing between the remote site and the ECMCs. If two active paths MPLS LSP's (Label Switch Path) for two separate VRFs converge at any point inside an MPLS provider's backbone, a single black hole event could impair all active calls across the A9-1-1 Routing network in a way that cannot be corrected by failing from one path to the other.

QoS in the A9-1-1 network is performed through packet marking with Differentiated Services Code Point (DSCP) on ingress to the switch ports attaching voice equipment to routers at remote and core sites. The audio stream (RTP) is marked with "Expedited Forwarding," the highest class of service available – this is appropriate for real-time media like voice, and is typically mapped to a priority queue. Signaling packets (SIP or Media Gateway Control Protocol (MGCP)) are placed in another queue, which will typically have a small but firmly-reserved portion of bandwidth.

2.1.5 A9-1-1 Routing Rules

A9-1-1 Routing processes all inbound emergency calls, presenting the emergency calls to Randolph County in accordance with the configured routing rules for Randolph County E911 Center. The A9-1-1 Routing rules allow for specialized management of wireline, wireless, and VoIP call types which are assigned to trunks based on the incoming call source facility (e.g., Mobile Switching Center (MSC), End office). CenturyLink/Intrado identifies each end office trunk for either selective routing or trunk-only routing.

CenturyLink/Intrado will coordinate the data provisioning with each TSP and confirm information to support the signal provisioning for trunks incoming from the End Office or legacy Selective Router to A9-1-1 Routing, including the following data:

- ✓ Incoming signal type
- ✓ Call type
- ✓ Emergency Services Central Office(ESCO) code

2.1.6 Implementing Configurable PSAP Attributes

CenturyLink/Intrado will provision the PSAP-configurable attributes as requested by CenturyLink. CenturyLink will identify which Randolph County personnel are authorized to request PSAP-configurable attribute changes.

The following attributes are configurable on a PSAP by PSAP basis.

- ✓ Randolph County A911 PSAP Trunks:
 - Numbering Plan Digit (NPD) assignment (if appropriate)
 - Trunk assignments by call type (wireline, wireless, VoIP, or any combination)
 - Add or delete trunk members
 - Trunk signaling options (8-digit CAMA, 10-digit E-MF, 20-digit E-MF)
- ✓ Route Lists/Routing Rules
 - Primary and alternate routes
 - Selective transfer star code destinations (i.e. *11 thru*19) for first responders, Police, Fire, and EMS
 - Fixed bridge lists (i.e. *20 thru *49) such as poison control or neighboring PSAPs
 - PSAP abandonment routing rules

2.1.7 CenturyLink/Intrado Customer Portal

The CenturyLink/Intrado customer portal provides CenturyLink and Randolph County with access to CenturyLink/Intrado web-based tools, including the A9-1-1 PSAP Management Portal and the Web Reporting Tool described below.

CenturyLink/Intrado uses an Identity Management system to authenticate users for to the CenturyLink/Intrado customer portal. The CenturyLink/Intrado Identity Management system requires two factor authentications before users can access the A9-1-1 PSAP Management Portal via the CenturyLink/Intrado customer portal.

The CenturyLink/Intrado customer portal will also be used to access CenturyLink/Intrado web-based tools providing Location Management functions, including:

- ✓ 9-1-1 NET – query, request and track changes/problems to Master Street Address Guide (MSAG) records, ELTs, TN records, ALI discrepancies, etc.
- ✓ Ticketing system – for initiating new user reports, requesting certain configuration changes, new user requests, etc.
- ✓ CenturyLink/Intrado document library – for user guides, training materials and other documentation on A9-1-1 Routing Services.
- ✓ A9-1-1 PSAP Management Portal - to view Call Detail Records or A9-1-1 Routing configurations
- ✓ Web Reporting Tool – to view metric reports

2.1.8 A9-1-1 PSAP Management Portal

The A9-1-1 PSAP Management Portal (PMP) is a web-based tool that will allow CenturyLink and Randolph County to view Call Detail Records or A9-1-1 Routing configurations. The current minimum requirements for workstations running customer portal applications are Windows XP with 1GB RAM and IE 7.

The PMP allows authorized users to view A9-1-1 Routing configurations for Randolph County allowing a view of daily and long-term call management. The navigation menu allows access to view the configured Configurable PSAP Attributes.

- ✓ The **Fixed Transfer/Bridge List** displays up to 30 entries that may be used by Randolph County personnel in daily operations. This includes criteria for PSAPs, both within the A9-1-1 Routing network as well as external to it.
- ✓ The **Abandonment State menu** indicates if the PSAP is in operation.
- ✓ The **Selective Bridge list** displays the first responders that correlate to the ESN of the Caller's TN.

In addition, the PMP user may research Call Detail Records for call activity based on a specific date range as well as for calls that are currently in progress. The Call Detail Records enables a user to view general information, such as a simple listing of calls for a time period, or examine a granular detail.

At CenturyLink's discretion, CenturyLink/Intrado is able to provide each with secure access to PMP via the CenturyLink/Intrado customer portal.

2.1.9 Web Reporting Tool

A9-1-1 Routing includes a comprehensive suite of web-based tools for metrics reporting. The **Web Reporting Tool** is able to provide CenturyLink A9-1-1 and Randolph County with metrics reports as listed in this section. CenturyLink authorized personnel will be able to view reports available for Randolph County if required and authorized by Randolph County .

CenturyLink/Intrado's web-based reporting tool provides a number of A9-1-1 Routing reports which can be queried based on a daily, weekly, or monthly basis. CenturyLink/Intrado will provide Randolph County with secure access to the web-based reporting tool via the CenturyLink/Intrado customer portal. All reports can be exported to a file for downloading by a user. CenturyLink/Intrado will establish groups of users defined by CenturyLink so that users in each group can be configured to only be able to view certain reports.

CenturyLink/Intrado currently posts data updates to monthly data sets by the sixth (6th) business day of each month immediately following the reporting month. Randolph County will be able to access one (1) year of metrics data through the web-based reporting tool.

CenturyLink/Intrado will provide support services for the web-based reporting tool during CenturyLink/Intrado Normal Business Hours.

A list of reports available through each metrics reporting tool is listed in the Sections below.

2.1.9.1 Metrics Reports for A9-1-1 Routing

CenturyLink/Intrado will provide Randolph County with the following A9-1-1 Routing metrics reports through the web-based reporting tool.

ESN Reports:

- ✓ Primary Routing Report – ESNs that route to your PSAP as Primary
- ✓ Alternate Routing Report – ESNs where your PSAP serves as the Alternate for another PSAP
- ✓ Default Routing Report – End Offices that use your PSAP as the default route for calls. Includes ESN, TSP, CLLI, and Emergency Service Central Office (ESCO).
- ✓ Abandoned Routing Report – Abandonment Route where your PSAP serves as the abandonment route for another PSAP

Call processing and call status reports:

- ✓ Event Count Reports per Hour– provides metrics for total calls in which the PSAP participated by Hour for a day, week or month
- ✓ Event Count Report by Trunk Group – provides metrics for total calls in which the PSAP participated, and provides metrics for calls attempted, calls transferred out, calls transferred in
- ✓ Event Count by Routing Reason and Destination – Indicates counts where the PSAP participated as the Primary versus Alternate, whether the call was answered or busy, for Default versus Selective routed, and for call where the destination was “Not Available” (includes abandoned, rejected, transferred and handed off calls). Provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category.
- ✓ Event Count by Call Type – Indicates counts by call type (wireless, wireline, VoIP) where the PSAP is primary, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in
- ✓ Event Count by Incoming Trunk – Indicates the number of calls sent to the PSAP via each incoming End Office trunk, and provides metrics for total calls, initial calls, calls transferred out, and calls transferred in for each category. The following detail is provided for each incoming End Office trunk: End Office CLLI, TSP, and OCN.
- ✓ Bridge Call Summary – provides metrics for calls bridged in or out by bridge type (fixed, selective, manual). Call detail is available for each bridged call.
- ✓ Routing Database Processing – provides a breakout of initial calls where the PSAP was Primary by selectively routed versus default routed with a No Record Found (NRF) breakout
- ✓ Event Setup Time – provides statistics on the time to route and deliver calls where your PSAP is Primary, including the minimum, maximum, median and average times.

Additionally, for any specific call, call detail is available through the A9-1-1 PSAP Management portal.

2.1.10 Network Architecture and Connectivity

A9-1-1 Routing can be separated into three major component categories:

- ✓ Ingress traffic or Telephone Service Provider interfaces and legacy selective router
- ✓ Core Elements
- ✓ Egress traffic or PSAP interfaces

There are three connectivity models that can expose a different set of interfaces to external (egress) facing PSAP entities. In all cases A9-1-1 Routing delivers calls to the CPE element via a secured VPN GRE/IPSEC tunnel.

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will work with Randolph County to finalize the design of the A9-1-1 Routing Solution network architecture. The design of the A9-1-1 Routing infrastructure will include redundant and diverse network elements where available. CenturyLink/Intrado provides PSTN call delivery for bridged and transferred calls for external destinations.

Once the network design has been finalized and mutually agreed upon by both Parties, CenturyLink/Intrado will provide a high level network diagram that illustrates each component type and location of the final design, and designates ownership and maintenance of each of those components (CenturyLink/Intrado or Randolph County).

Once the CenturyLink/Intrado provided network connectivity has been established, the CenturyLink/Intrado A9-1-1 PSAP Equipment has been installed at the Facilities, and CenturyLink/Intrado has completed the A9-1-1 Routing system build-out, CenturyLink/Intrado will work with Randolph County to schedule and conduct end to end network connectivity testing.

CenturyLink/Intrado will provide and maintain the following MPLS connectivity:

- ✓ Each MPLS circuit will have an effective T-1 bandwidth (1.544 Mbps) up to eleven (11) incoming NG9-1-1 trunks. For PSAPs with more than 11 incoming NG9-1-1 trunks, multiple, bonded T-1s will be required.

CenturyLink/Intrado is responsible for providing adequate network redundancy to ensure packet delivery. CenturyLink/Intrado will not be responsible for A9-1-1 Routing Solution issues traced to CenturyLink provided system elements.

2.1.10.1 PSAP MPLS Network Connectivity Requirements

CenturyLink/Intrado Responsibility:

The MPLS network will meet the following minimum requirements:

- ✓ The maximum Packet Transit Delay (PTD) between any 2 points within the domestic US IP network is currently 50 milliseconds, exclusive of local access, but the actual SLA metrics are

based on a city-to-city matrix. Provider Edge (PE) PTD is the provider edge PE-to-PE monthly average round trip transit delay in milliseconds between respective Provider Edge device pairs on the CenturyLink IP Network. PTD is determined by using 64-byte packets for measuring transit delay in milliseconds across the CenturyLink network and averaging the results over a thirty day period. The packet loss is covered separately under the Packet Delivery Ratio (PDR) performance measure.

- ✓ The IP network will have the appropriate levels of security in place both at the physical and application layers.
- ✓ IP service supports 6 Classes of Service (CoS): 1 priority class (EF) and 5 data CBWFQ data classes (AF4x, AF3, AF2x, AF1x, BE) with a separate queue for each CoS.
- ✓ IP will transparently transport CenturyLink/Intrado CPE originated GRE/IPsec tunnels provided only the IP payload is encrypted and the IP packet header is sent unencrypted. Queuing treatment will be based on the DSCP marking of the packet header.

2.1.10.2 Legacy Network Gateways and Points of Interconnect

The CenturyLink/Intrado LNG contains equipment that converts TDM traffic into IP traffic for transport to the A9-1-1 Routing at CenturyLink/Intrado ECMCs.

The CenturyLink/Intrado LNG POIs are the demarcation points where CenturyLink/Intrado takes responsibility for the 9-1-1 traffic. This may take the form of one of the following: punch down block, patch panel, or LOA/CFA on High Capacity (DS3/OC) interoffice facilities.

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will provide two (2) LNG POIs.

2.1.11 Production Hands-On Support

CenturyLink Responsibility:

CenturyLink will provide on-site support for all A9-1-1 PSAP Equipment.

Remote Hands reactionary services include:

- ✓ Troubleshooting support of A9-1-1 Routing Network Circuits
- ✓ Onsite support of Network Equipment, and Network Support Equipment to include:
- ✓ Locating equipment at identified site,
- ✓ Power cycling of equipment,
- ✓ Recording serial numbers and asset tags,
- ✓ Removing defective equipment from rack,
- ✓ Installing replacement equipment/parts,

- ✓ Packaging of defective equipment for shipment,
- ✓ Ship defective equipment and parts back to CenturyLink/Intrado, and
- ✓ Assisting with test and turn-up activities

CenturyLink/Intrado, in collaboration with CenturyLink, will establish an agreed upon response interval to PSAP equipment trouble report.

CenturyLink/Intrado will initiate hands on support requests for A9-1-1 PSAP Equipment as set forth in this Agreement by contacting CenturyLink's NOC. CenturyLink/Intrado technical personnel will provide phone support for all remote hands-on support requests made by CenturyLink/Intrado to CenturyLink.

CenturyLink/Intrado and Randolph County will mutually agree on a list and time schedule for all on-site routine maintenance activities.

CenturyLink will dispatch a qualified engineer or technician to the designated facility.

CenturyLink will arrange for site access to PSAP.

2.2 A9-1-1 VIPER

CenturyLink/Intrado will provide A9-1-1 VIPER Services to Randolph County for the solution which combines CenturyLink/Intrado's A9-1-1 VIPER Services (also referred to as "A9-1-1 VIPER") with CenturyLink/Intrado's A9-1-1 Routing and CenturyLink's field technician and project management support to provide an end-to-end 9-1-1 emergency call handling solution ("A9-1-1 VIPER Solution") for Next Generation 9-1-1 Customer Randolph County .

A9-1-1 VIPER Services are provided to Randolph County as a full service turnkey offering with CenturyLink/Intrado owning and operating the A9-1-1 VIPER equipment. Basic services include:

- ✓ A9-1-1 VIPER Hosted Systems
- ✓ Power 9-1-1 hosted systems
- ✓ Power MIS hosted systems
- ✓ Power Map Systems

This section contains information on the level of services and support for A9-1-1 VIPER Services in addition to the services provided for A9-1-1 Routing Services and the migration to i3 based A9-1-1 VIPER Services.

2.2.1 i3-Based A9-1-1 VIPER Services

A9-1-1 VIPER Services will support i3 functions and protocols as data and i3 Services become available. As defined within the NENA i3 Reference Architecture, the A9-1-1 VIPER Services will support the ability for the Customer to:

- ✓ Terminate a voice emergency call with SIP/PIDF-LO
- ✓ Query the ECRF for emergency responder information using the LoST protocol
- ✓ Query a CIDB to obtain additional caller information data
- ✓ Query a LIS to obtain updated information during a call using the HELD protocol
- ✓ Terminate/display text emergency call information with PIDF-LO
- ✓ Query and display enhanced data information on the PSAP workstation

2.2.2 A9-1-1VIPER Services

A9-1-1 VIPER Service is in addition to and contingent upon CenturyLink/Intrado providing A9-1-1 Routing Service and ALI Management Service for the Randolph County , except as otherwise agreed by the Parties on a case-by-case basis in an order or other written agreement.

2.2.3 A9-1-1 VIPER Overview

The A9-1-1 VIPER Services provide hosted call handling functionality over a system that includes VIPER, Power 9-1-1, Power MIS and MapFlex servers, paired with Power 9-1-1 servers and workstations installed at Randolph County PSAP and Archdale PD. CenturyLink/Intrado will provide and maintain redundant systems for A9-1-1 VIPER Call Handling, including hosted VIPER and Power 9-1-1 servers. CenturyLink/Intrado's

deployment architecture uses a resource-pooling methodology. Both software and infrastructure achieve a level of isolation via configuration and/or virtualization. Currently, there will be dedicated servers for Randolph County A9-1-1 VIPER. In the future CenturyLink/Intrado may leverage shared components, which are not determined at this time. CenturyLink/Intrado will provide Randolph County with a notification at least 60 days prior to a migration from dedicated servers.

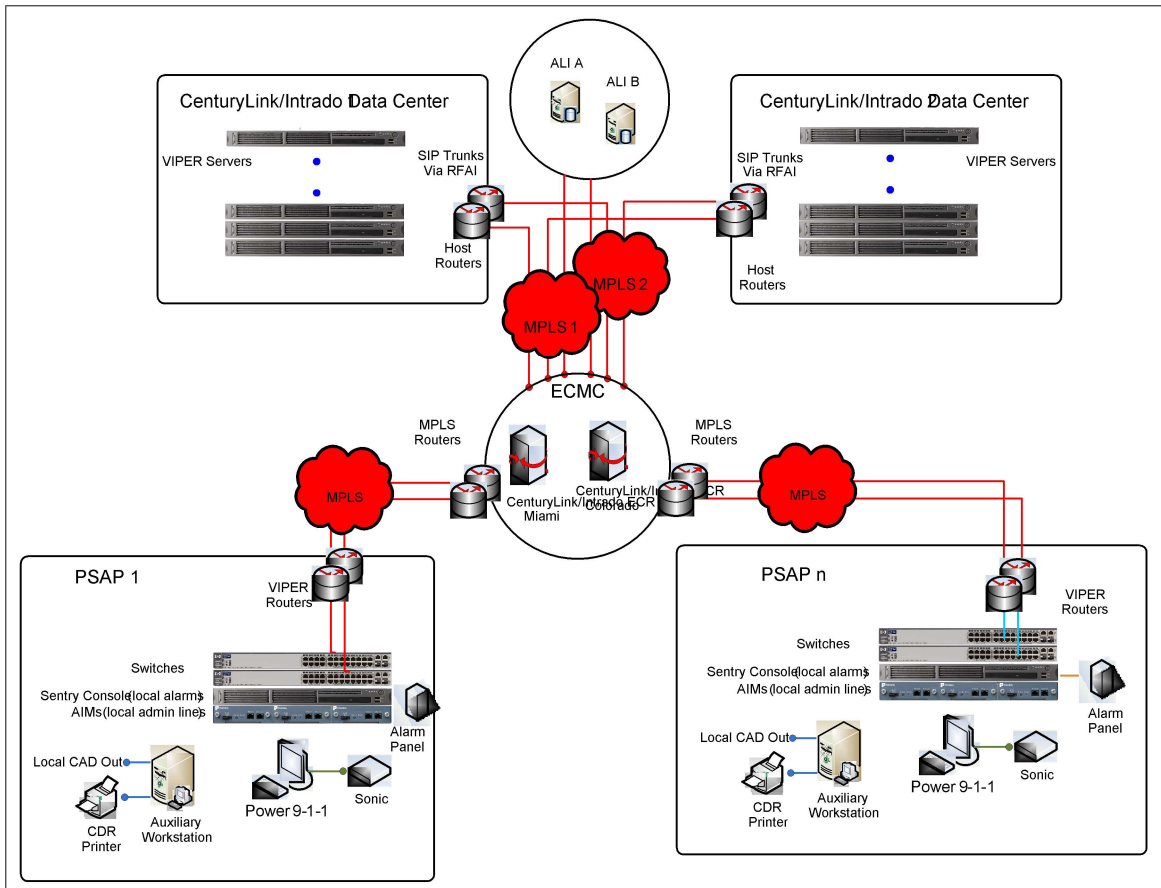
As part of A9-1-1 VIPER Services, CenturyLink/Intrado provides, installs, configures, and monitors all system components. CenturyLink/Intrado will work with Randolph County to determine and implement VIPER and Power 9-1-1 configurations. CenturyLink/Intrado will provide Randolph County with the following services:

- ✓ A9-1-1 VIPER Services
- ✓ MPLS Network connectivity from the CenturyLink/Intrado ECMCs to the Randolph County Facilities to include Archdale Police Department
- ✓ Project Management
- ✓ Training
- ✓ Repair and Maintenance of Hosted VIPER nodesA9-1-1 VIPER Sales Support

CenturyLink is responsible for the following facilities, network and services in support of the A9-1-1 VIPER Solution.

- ✓ Customer site coordination and third party equipment connectivity where applicable
- ✓ Project Management support
- ✓ Repair and Maintenance of PSAP located equipment

Figure V1 shows the A9-1-1 VIPER components distributed within each location operated by CenturyLink/Intrado and the Randolph County PSAP equipment. Figure V1 below shows the logical architecture of A9-1-1 VIPER Services located in CenturyLink/Intrado managed data centers and the MPLS Network Services providing the end to end A9-1-1 VIPER Solution in addition to A9-1-1 Routing and A9-1-1 Location Management services.



Note: This is a high level diagram does not show all redundancy and it is for illustration purposes only

Figure 4 - A9-1-1 VIPER Component Architecture

2.2.4 A9-1-1 VIPER Services Features

A9-1-1 VIPER Services will provide Randolph County with the following features. Each of these features is included within the base feature pricing.

2.2.4.1 Scalable, IP-Based Solution

A9-1-1 VIPER Service leverages Session Initiation Protocol (SIP) technology.

A9-1-1 VIPER Services allow Randolph County to:

- ✓ Move to a networked model that integrates data, voice and NG9-1-1 traffic
- ✓ Implement call queues to meet call taker distribution needs

2.2.4.2 Configurable Call Distribution and Integrated Automatic Call Distribution (ACD) Features

A9-1-1 VIPER Services provide a highly configurable layering of options and features for call distribution within Randolph County as necessary for backup scenarios.

A9-1-1 VIPER Services support Ring Groups, where calls are sent to all available workstations.

A9-1-1 VIPER Services support Multiple ACD algorithms:

- ✓ Longest Idle: Presents next call to the agent least recently called by this queue
- ✓ Fewest Calls: Presents next call to the agent with fewest completed calls from this queue
- ✓ Round Robin: Calls presented to all agents in sequence
- ✓ A9-1-1 VIPER ACD provides multiple features:
- ✓ ACD Queue: Allows lines and trunks to be assigned to specific queues. Each agent can be a member of one or more ACD queues. An agent will receive a call from a queue when they are logged on and ready.
- ✓ Agent Priority: Allows a priority to be assigned to each agent in a queue.
- ✓ Line Priority: Allows priorities to be assigned to each line in a queue.
- ✓ Queue Recorded Announcement: A PSAP-recorded announcement can be played at intervals to callers waiting in a queue.
- ✓ Queue Wrap-up time: Allows a time interval to be configured to allow agents to complete tasks from a previous 9-1-1 call before a new call is presented.
- ✓ Private Call Park: Allows an agent to place a call in a 'on hold' state in order to be able take other calls in a queue and then return later to the parked call.
- ✓ Forced Connect: This feature can be enabled or disabled. When enabled, agents that are logged on and ready to accept calls are automatically connected to ACD calls and hear a zip tone as notification that they have been connected to a new call.

2.2.4.3 Power 9-1-1 Intelligent Workstations

A9-1-1 VIPER Services include Power 9-1-1 intelligent workstations that provide agents with on-screen call control of emergency and administrative calls, with features that enhance call handling efficiency and consistency. All workstations will be considered A9-1-1 VIPER Services PSAP Equipment. CenturyLink/Intrado will replace defective equipment with spares that are stored either on site or from centralized storage locations that provide for same day or next day delivery.

Power 9-1-1 also provides the following user features

- ✓ Integrated TTY via Baudot with pre-programmable messages, HCO/VCO, and optional buffered mode so that messages are delivered at one time rather than character by character.
- ✓ An Integrated Call Check Recorder allows calls to be recorded automatically or on-demand. Agents can play back recently completed calls within a configurable time period.
- ✓ Integrated Greeting Announcement: A customized greeting announcement can be automatically played when an agent answers calls.
- ✓ Intelligent Speed Dialing currently provides up to 1500 programmable speed dials and voice transfers between positions or to a third party.

- ✓ An Integrated Phone Book has no imposed limits on the number of contacts with configurable agent read/write access rights.
- ✓ Fully searchable Agency List to allow each CenturyLink A9-1-1 VIPER Services Customer PSAP to manage and contact thousands of agencies.
- ✓ On-the-fly Multi-lingual support with language selected via drop down menu functions for the GUI text.
- ✓ Message board to support instant messaging between all signed on Power 9-1-1 users.

Power 9-1-1 allows profiles to be configured by workstation, agent, or role (e.g. call taker or dispatcher) to control features and content to meet the preference of every PSAP. The legend of each button on the screen can be changed to match the language of the call taker or to identify a button operation in a more familiar way. The configurable text strings supports any language that can be represented by Unicode. These text strings are implemented during initial deployment using the Customer Configuration System tool. A technician must make requested changes using the tool.

CenturyLink/Intrado will provide and install intelligent workstations with Power 9-1-1 and Power MIS capabilities. All Power 9-1-1 workstations and associated equipment will be located on the call taking floor at Randolph County and not in the equipment room.

CenturyLink/Intrado will provide the following software and equipment for each Power 9-1-1 workstation, which will constitute A9-1-1 VIPER Services PSAP Equipment.

Power 9-1-1, with the following features:

- ✓ Location Module – Displays ANI/ALI
- ✓ Computer telephony module – Provides on-screen telephony. The computer workstation itself is the call taker's phone device, with call control operations performed via the workstation mouse and keyboard with the GUI (Graphical User Interface) providing visual feedback
- ✓ Contact Module – An integrated phonebook and contact list. Enables speed dials and transfers between positions, to a third party, or to an external device such as a rip-n-run printer.
- ✓ Message Board Module – Enables instant text messaging between all signed on Power 9-1-1 users within the Randolph County PSAP. The Message Board is an inter-workstation text-based messaging capability. It is unrelated to external "Message Boards".
- ✓ Lists Module – Provides multiple Call Lists and Queries, including active and abandoned calls, instant call queries and historical calls
- ✓ Toolbar – Provides configurable on-click access to certain functions
- ✓ Incident Manager Software – Provides Incident Detailing, premise information and standard operating procedures
- ✓ Integrated Call Check Recorder
- ✓ Integrated TTY

- ✓ Power MIS web access
- ✓ MapFlex
- ✓ One (1) Standard LCD monitor
- ✓ One (1) Touch screen monitor
- ✓ A Handset

- ✓ Randolph County may elect to provide headsets for selected positions. Any headset used on the system must be approved by CenturyLink/Intrado for compatibility.
- ✓ Each Power 9-1-1 position will be adjusted to the electrical characteristics of a given handset or headset model. As such, in PSAPs where multiple models are used, Randolph County will be responsible for ensuring the handset or headsets are only used at the positions specifically adjusted for those models.

CenturyLink/Intrado provides secure, limited access via the A9-1-1 Services Network to the browser-based A9-1-1 VIPER Services PSAP Management Gateway. The A9-1-1 VIPER Services PSAP Management Gateway can be accessed locally on the Auxiliary Workstation by an CenturyLink/Intrado certified technician for system configuration of the A9-1-1 VIPER. CenturyLink/Intrado will provide, install and maintain two current model color laser printers at Randolph County. Randolph County will be responsible for ink, toner and paper. For Randolph County, the Power 9-1-1 workstation configuration will be setup as a square system, meaning that all positions will be presented with the same profile, including screen layout, agency access, transfer profiles, etc.

Additional workstation configurations are available. Implementation of those configurations, such as unique screen requirements per call taker type, may affect the implementation timeline.

2.2.4.4 Power MIS

Power MIS provides emergency response center managers and system administrators with vital, timely information on the volume of calls, performance of agents and Naah County statistics. Power MIS is a web-based application that uses information from a Power 9-1-1 database to generate a wide range of comprehensive statistical reports.

Power MIS offers a broad range of powerful features including:

- ✓ Generating reports that can be used to evaluate the overall performance of a PSAP or the performance of individual call-takers.
- ✓ Retrieving critical information such as the time a call was received, how long it took for a call to be answered, questions that were asked by the operator, the answers the caller provided, and the agencies to which a call was transferred.
- ✓ Performing detailed queries calls and incident-related activities of one or more emergency response centers.
- ✓ Scheduling reports for automatic generation at specific times and frequencies.

- ✓ Saving report settings for future reuse.
- ✓ Generating reports in Portable Document Format (PDF), HTML, and or XML formats, with optional customizable titles, which can then be saved, viewed on screen (via included PDF reader or browser client as appropriate), and/or printed..

Randolph County will be able to access and obtain metrics reports on its PSAP activity on a per PSAP basis, and also aggregated PSAP reports through the web-based Power MIS system.

CenturyLink/Intrado will store Power MIS data according to the following schedule:

- ✓ Pre-production testing, CenturyLink/Intrado Power MIS data will be stored for a minimum of sixty (60) days.
- ✓ Post-production turn up, CenturyLink/Intrado Power MIS data will be stored for – three (3) years.

Power MIS provides the following reports:

Call Details Report

- ✓ Call Summary Reports (various)
- ✓ Call Volume by ACD, by Ring Group, by Range of Answer Time, by Hour
- ✓ Call Transfer Volume
- ✓ Call Type Volume by Line, by Line Group, by Trunk, by Trunk Group
- ✓ Call Volume (%) by Period - by Hour, by Month, by Time Range
- ✓ Incorrect ALI Detail
- ✓ Incorrect ALI Summary
- ✓ Long Distance Call Summary
- ✓ Manual ALI Lookup Summary. (This can be disabled as a configurable item in Power 9-1-1. If disabled the feature button does not appear on the GUI.)
- ✓ Top 50 ANI Summary
- ✓ ALI Retransmit (RTX) Statistics per Call Taker
- ✓ Call Routing Statistic per Period
- ✓ Call Statistics by Call Taker, by Call Taker Group, by Day of the Week, by ESN, by Week
- ✓ Call Time Statistics per Call Taker
- ✓ Total Call Statistics per Month
- ✓ Call Taker Statistics Summary/Detail

2.2.5 CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment

CenturyLink/Intrado will provide and install additional A9-1-1 VIPER Services PSAP Equipment, including Power 9-1-1 workstations, backroom servers, peripheral hardware, and routers/switches at Randolph County designated 911 Centers.

CenturyLink/Intrado will conduct a Project Survey used to collect customer site data in accordance with two principles: 1) collecting data from site elements (both physical and operational) that are in place at the time of the survey and 2) new elements that will be used within the scope of the project. Based upon the Output of the Project Survey and Analysis Report, CenturyLink/Intrado will work with each Randolph County PSAP to determine the appropriate location for the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment. CenturyLink/Intrado will conduct a project survey at Randolph County . During the project visit, CenturyLink/Intrado's engineer will assess the facility compliance against the A9-1-1 VIPER Services facility requirements and will consult with the Randolph County on alternatives and any necessary site changes. Following the project survey, CenturyLink/Intrado will provide Randolph County with a Site Requirements Survey Report, which specifies any site remediation requirements.

CenturyLink/Intrado will provide, install and maintain new LAN connectivity within Randolph County facility for interconnectivity between the Power 9-1-1 workstations for delivery of the A9-1-1 Routing Solution. Interconnectivity between the CenturyLink/Intrado-provided LAN and the Randolph County 's existing LAN and/or the Public Internet is not currently supported.

CenturyLink/Intrado will provide and install all cabling to interconnect between Power 9-1-1 workstation and equipment room components.

CenturyLink/Intrado will engineer the A9-1-1 VIPER Services to interconnect with auxiliary equipment, such as CAD and CDR ports per applicable NENA Standards. Centurylink will provide Post-deployment support of the interconnections.

CenturyLink/Intrado will maintain ownership of all A9-1-1 VIPER Services PSAP Equipment. CenturyLink/Intrado may, at its discretion, remove, replace or upgrade A9-1-1 VIPER Services PSAP Equipment as needed. A9-1-1 VIPER Services PSAP Equipment is privately managed and closed to all third-party software applications (any software not provided by CenturyLink/Intrado) and internetworking. CenturyLink/Intrado will provide insurance for all A9-1-1 VIPER Services PSAP Equipment. The CAD interface is the industry standard RS232C serial interface specification and follows NENA Standard NENA 04-001. CenturyLink/Intrado will provide a CAD IP interface via a future NENA standard.

CenturyLink/Intrado will provide trained and certified technicians in proximity sufficient to meet SLAs and provide continuity of coverage for the host VIPER nodes. Spare parts are stored at regional facilities that provide same day or next day delivery as required.

CenturyLink Responsibility:

CenturyLink will:

- ✓ Brief on-site CenturyLink/Intrado technician on issue(s) and actions taken.

- ✓ Validate issue resolution prior to close of the case.
- ✓ Cooperate with CenturyLink/Intrado and perform all acts that are reasonable or necessary to enable CenturyLink/Intrado to provide the On-Site and/or Remote Support Services during implementation. These include maintaining a suitable environment (heat, light, and power) and providing the technician with full, free, and safe access to the System. All sites must be accessible by standard service vehicles. (CenturyLink or CenturyLink Service Partner personnel are not required to be on-site at the customer PSAP during the install and implementation by CenturyLink/Intrado.)
- ✓ Post acceptance, CenturyLink will perform all On-Site and/or Remote Support Services.

2.2.6 General Facility Requirements

CenturyLink Responsibility:

Each Randolph County facility will provide at minimum a 1000VA Uninterruptible Power Supply (UPS) equipment for networking and server equipment at the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment. Each workstation should be protected with a 650VA UPS or equivalent.

CenturyLink will notify Randolph County of the need to provide the following:

- ✓ Security access to each of Randolph County facility for CenturyLink/Intrado personnel or authorized agents
- ✓ Ability to freely access all appropriate areas within each Randolph County Facility
- ✓ Parking and building access to move tools and equipment in and out of the facilities
- ✓ Secured storage for CenturyLink/Intrado-supplied equipment shipped to the Randolph County facility in preparation for installation
- ✓ Trash and/or recycling removal as needed, including disposal of system packing materials.
- ✓ Safe, locked and limited access to equipment room, including adequate security to prevent theft of computer equipment, tools, test sets and employees' personal effects
- ✓ Working space, access to computers and other technology, telecommunications equipment and any other services and materials that may be reasonably necessary for CenturyLink/Intrado's performance of the services.
- ✓ 24 x 7 access for problem isolation

2.2.7 Equipment Room

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will provide and install network communications equipment, including redundant IP routers, LAN switches, and backroom Power 9-1-1 equipment, in the equipment room at each Randolph County facility for connectivity between the CenturyLink/Intrado provided LAN and CenturyLink/Intrado MPLS connectivity. For most PSAPs, the A9-1-1 VIPER Services PSAP Equipment located in the equipment room will be installed in one (1) standard 19" data cabinet. The A9-1-1 VIPER Services PSAP Equipment may require additional standard 19" data cabinets at some very large PSAPs.

CenturyLink/Intrado will provide additional optional A9-1-1 VIPER Services PSAP Equipment as requested, if required, on an interim basis to support the migration to the CenturyLink/Intrado A9-1-1 Services. CenturyLink/Intrado will provide Randolph County with detailed specifications of any incremental requirements after the Randolph County Transition Plan has been completed.

Randolph County Responsibility:

The Randolph County PSAP will ensure that the equipment room where the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment rack is located meets the following requirements:

- ✓ The floor must be capable of supporting 104 pounds per square foot
- ✓ Dry, clean and well ventilated
- ✓ Well lit, easily accessible and free from excess vibrations
- ✓ The rack should be located in an area that does not receive consistent building traffic

Randolph County will provide power, ground, and environmental controls for the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment to be installed in the equipment room at each of Randolph County facility's as follows:

- ✓ Two (2) dedicated 110 volt / 20 AMP power feeds are required with A & B feed (separate power source) and receptacle plug type NEMA L5 20R twist lock
- ✓ Any metallic component that is part of the Randolph County PSAP infrastructure (such as equipment, racks, ladder racks, enclosures, cable trays, etc.) must be bonded to the grounding system.
- ✓ The facility will have adequate HVAC controls, monitoring and redundancy in order to maintain:
- ✓ Cooling for maximum heat output under full load is 4,000 BTU/hour
- ✓ Relative humidity between 40% and 55%
- ✓ Surge/Lightning Protection

Randolph County will provide 24"x 87" of floor space where possible for the CenturyLink/Intrado provided equipment cabinet within 20 feet of the main telecommunications demarcation point in each of Randolph County PSAP. In most cases, the CenturyLink/Intrado provided equipment will be housed in one (1) standard 19" data cabinet.

If CenturyLink or the Randolph County wants to place the A9-1-1 VIPER Services PSAP Equipment into a pre-existing rack, CenturyLink/Intrado requires a minimum of nine (9) contiguous Rack Units of rack space in a single rack dependent on PSAP configuration.

An CenturyLink/Intrado provided equipment cabinet measures 24"x 39". However, 24" of space in front and behind the rack is required, and 36" between the end of the racks and the wall is recommended for proper airflow, installation, and maintenance.

2.2.8 Power 9-1-1 Workstations

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will install, configure, test and monitor each Power9-1-1 Workstation.

Randolph County Responsibility:

Randolph County will provide the following space for each Power 9-1-1 workstation:

- ✓ 7" x 17" x 15" either on or under the desktop
- ✓ 18" x 10" x 19" on the desktop for each monitor

Randolph County will provide power, ground, and environmental controls for the Power 9-1-1 workstations to be installed at each Randolph County facility as follows:

- ✓ Adequate HVAC. Each Call Taker and Supervisor workstation position with two 19" Monitors will dissipate a maximum of 1950 BTUs per/hour.
- ✓ A minimum of two (2) dedicated 15-ampere circuits to provide diverse power for the Power 9-1-1 workstations. Each circuit must be wired to an individual 15-ampere circuit breaker. Each circuit must provide (2) fourplex outlets with individual hot, neutral and ground wires. One 15-ampere circuit can support up to four (4) Power 9-1-1 workstations. Workstations should be distributed evenly across the circuits.
- ✓ Additional circuits may be required for other non-emergency equipment.
- ✓ Each position should be prepared with 3 (4 x 120 VAC) outlets as follow:
 - Two (2) power receptacles for monitors
 - One (1) Power connector for the PC (NEMA 5 15P)
 - One (1) power receptacles for speakers (for Power 9-1-1 ringing)

2.2.9 Interconnectivity with Third Party Vendor Systems

CenturyLink/Intrado Responsibility:

When installation of third party vendor systems requires coordination with CenturyLink/Intrado technicians, CenturyLink/Intrado will make all reasonable efforts to work with Randolph County to schedule a mutually agreeable time to complete the work. CenturyLink/Intrado will not provide, install, maintain or support cabling to connect any components provided by third party vendors. The CenturyLink/Intrado Project Manager will include this work in the overall project plan and provide coordination.

CenturyLink Responsibility:

During the installation of the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment, CenturyLink or the Randolph County will make all reasonable effort to have an authorized third party vendor technician whose equipment will interconnect with the A9-1-1 VIPER Services PSAP Equipment on site during the installation.

If applicable, the Randolph County will ensure that a PBX technician is available to work with CenturyLink/Intrado to make sure that all the phones work together and configure the PBX to interface with the CenturyLink/Intrado A9-1-1 VIPER Services PSAP Equipment.

CenturyLink will provide, install, maintain, and support all cabling to interconnect between any components provided by third party vendors and the Power 9-1-1 systems. This includes connectivity to CAD and the Radio system, if any. Interconnection between the Power 9-1-1 system and any third party component that uses an IP interface is not currently supported.

CenturyLink and Randolph County will be responsible for working with the CAD system to implement any programming changes required in the CAD system. The A9-1-1 VIPER serial interface follows the NENA 04-001 Section 3.4 standard.

2.2.10 MPLS Network Requirements for A9-1-1 VIPER Services

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado is responsible for providing MPLS network with adequate network redundancy from the CenturyLink/Intrado ECMCs to each Randolph County PSAP. The MPLS network will meet the following requirements:

- ✓ Layer 3 routing will be provided between all locations
- ✓ Certified CAT5e/CAT6 between all network switches
- ✓ Guaranteed Bandwidth for all CenturyLink/Intrado applications – Bandwidth requirements to be provided by CenturyLink/Intrado for each Randolph County deployment
- ✓ Low Latency (< 40ms desirable)
- ✓ Low Jitter (< 5ms desirable)
- ✓ Support for QoS (Quality of Service) as needed
- ✓ Security against intrusion and virus attack

- ✓ Reliable links (fault tolerant) – no single point of failure may cause a Layer 3 disruption for more than four (4) seconds

2.2.11 Randolph County PSAP Training

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will provide on-site training for PSAP Call Takers/Dispatchers and Administrators.

CenturyLink Responsibility:

Randolph County will provide facilities for each on-site training session. On-site training will be scheduled after the Power 9-1-1 equipment has been installed and configured at the designated training location. CenturyLink will be responsible for identifying the Randolph County training attendees and ensuring they attend the CenturyLink/Intrado provided training. Randolph County will provide CenturyLink/Intrado with a complete list of attendees for each CenturyLink/Intrado training session and their positions a minimum of five (5) business days prior to the start date for each training session. Randolph County will be responsible for training additional personnel within their organizations, as necessary, unless Optional Training services are requested by CenturyLink from CenturyLink/Intrado.

2.2.11.1 PSAP Call Takers/Dispatchers

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will provide either end-user training or train the trainer training including:

- ✓ Training the Trainer - one (1) on-site training session on six (6) work stations for up to eight Randolph County Power 9-1-1 call takers/dispatchers. This training is expected to last for two (2) full days (6 training hours per day). Training will be provided in train-the-trainer format.
- ✓ End User Training - in lieu of Training the Trainer CenturyLink/Intrado can provide all End User Training. Training is provided to a maximum of eight Randolph County call takers/dispatchers, per training session, with a maximum of two training sessions per day. One workstation for each two students is required.

2.2.11.2 PSAP Administrators

CenturyLink/Intrado Responsibility:

CenturyLink/Intrado will provide one (1) on-site training session for Randolph County PSAP administrators. This training is expected to last for two (2) full days (6 training hours per day). Randolph County may determine the number and type of employees attending the CenturyLink/Intrado on-site training as long as Randolph County provides an adequate training facility and workstations/computers for number of attendees. One day of Administrator training is typically used to support the cutover. In addition to the A9-1-1 VIPER Services training topics, this training will focus on:

- ✓ Power 9-1-1

✓ Power MIS

✓ MapFlex

2.2.12 Long Term Recording Support

A9-1-1 VIPER provides per-position recording interfaces as per NENA 04-002 for analog recording systems of the customer choice.

Please note that trunk-side recording is not available at this time due to standards work in process from NENA regarding IP recording. As standards are ratified, CenturyLink/Intrado will work with providers to develop, test and if available, certify to the new IP recording standards for any third-party i3 compliant recording solution. Please note that depending on the requirements of the standards once they become available, there may be additional charges required for third-party interfaces.

Additionally, CenturyLink/Intrado can propose an IP recording solution as a service. Pricing for this solution is on an individual case basis and can be provided after a site survey and capture of the customer's total recording requirements.

2.3 LOCATION DATA MANAGEMENT SERVICES

A9-1-1 Location Data Management is a complete set of services that provides evolving data management as the PSAP is transitioned from their current ALI to CenturyLink's ALI and ESN-based data management to i3 GIS based data management. Location Data Management Services provide for location validation and error correction, telephone service provider coordination, SOI management, and delivery of location and caller information data for 9-1-1 call support. The services include full standards-based support of all telephone service types including wireline, wireless, and VoIP calls. CenturyLink/Intrado will work with Randolph County to transition from the PSAP's legacy ALI system.

For ESN based routing, A9-1-1 Routing service requires the input of SRDB updates from the CenturyLink/Intrado TSS database management system. As such, all TNs/ESRks/ESRDs/ESQks that are to be routed with the A9-1-1 Routing solution must be managed through the TSS database management services. Those services are covered under the Agreement.

2.3.1 i3-Based Location Data Management

The following i3 protocols and functions will be supported for location data management, per the i3 Reference Architecture:

- ✓ Caller Information Database (CIDB) functions contain information such as Carrier Name, Class of Service, etc.
- ✓ Emergency Call Routing Function (ECRF) contains CenturyLink A9-1-1 Customer's GIS data; used for routing 9-1-1 calls and identification of police, fire, and medical response.
- ✓ Location Information Server (LIS) database services that contain civic address and/or geodetic location information of 9-1-1 callers
- ✓ Location Validation Function (LVF) utilizes the GIS data provided by the 9-1-1 jurisdiction to validation locations before records are provisioned to the LIS and for PSAPs to validate locations during a 9-1-1 call
- ✓ Spatial Information Function (SIF) provides an interface for Randolph County to upload GIS updates. The SIF will validate the data and use it to provision the LVF and ECRF.

2.3.2 Data Transition

Database Preparation and Initial Load

CenturyLink/Intrado will prepare the CenturyLink/Intrado 9-1-1 database management system by loading Randolph County's MSAG as provided by the CenturyLink. Following the preparation of the MSAG, CenturyLink/Intrado will perform an initial TN simulation (TN validation against MSAG) using subscriber data from TSPs. CenturyLink/Intrado will determine the percentage of TNs that successfully pass MSAG validation ("Match Rate"). Based upon the Match Rate, CenturyLink/Intrado will work jointly with End User and the TSP(s) to increase the quality of the MSAG and TN data to achieve the required Match Rate.

A Match Rate of 95% is recommended before a system is considered prepared to begin production E9-1-1 validations and ALI database updates. CenturyLink/Intrado will perform up to two (2) simulations per PSAP

transition, at no additional cost to Randolph County. After the TN simulation has been successfully completed, each TSP will provide a complete SOI file containing all Subscriber records for the initial database load. These records will be MSAG validated and loaded into CenturyLink/Intrado's Location Data Management systems in preparation for final transition. Records that error during MSAG validation will be proactively resolved or referred back to the appropriate TSP entity for correction.

CenturyLink/Intrado Responsibilities

CenturyLink/Intrado will assist the Randolph County in crafting the request to obtain MSAG and other relevant data from their current 9-1-1 Service Provider and any additional TSPs if desired

CenturyLink/Intrado will load End User PSAP's MSAG as provided by Randolph County PSAP.

Following the preparation of the MSAG, CenturyLink/Intrado will perform an initial TN simulation (TN validation against MSAG) using Subscriber data from PSAP and other TSPs.

CenturyLink/Intrado will determine the percentage of TNs that successfully pass MSAG validation ("Match Rate"). CenturyLink/Intrado will work jointly with PSAP and the TSP(s) to increase the quality of the MSAG and TN data to achieve the required Match Rate.

CenturyLink/Intrado will process each TSPs initial load file and load into the Location Data Management systems in preparation for final transition. CenturyLink/Intrado will work to refer or resolve MSAG errors with the appropriate entity.

Randolph County will be responsible for requiring each TSP to provide CenturyLink/Intrado with a Subscriber Record extract in a SOI file for TN simulations, at no cost to CenturyLink/Intrado (with CenturyLink/Intrado's assistance in crafting the request to obtain relevant data from each TSP, if desired).

CenturyLink Responsibilities

Randolph County PSAP will provide CenturyLink/Intrado with MSAG data in electronic form. MSAG data that is not in electronic form will be subject to professional service fees as outlined in Appendix A.

Randolph County PSAP will be responsible for resolution of MSAG errors and for approval of all MSAG changes.

Joint Responsibilities

CenturyLink/Intrado and Randolph County will adhere to NENA-recommended MSAG standards.

2.3.3 Wireless and VoIP Support

CenturyLink/Intrado's database management systems will support both VoIP and wireless Phase I and Phase II E9-1-1 call processing. ESRK shell records submitted by TSPs or their third party providers are MSAG validated against the CenturyLink/Intrado maintained MSAG records and uploaded into the ALI database systems. The ALI Steering Table is used by the ALI system to determine which MPC/GMLC/VPC to query for E9-1-1 location information. All wireless and VoIP E9-1-1 location updates to the ALI systems will be via the E2 interface.

Both wireless and VoIP TSPs (or their third party database providers) must have entered into a contractual agreement with CenturyLink/Intrado for access to CenturyLink/Intrado's database management system and database management interface. Wireless and VoIP TSPs (or their third party database providers) will be responsible for establishing and maintaining connectivity to each ALI system and will bear all connectivity and support costs. Wireless and VoIP system connectivity to the ALI systems is not part of this SOW and must be negotiated separately between CenturyLink/Intrado and the wireless and VoIP TSP.

CenturyLink/Intrado Responsibilities

CenturyLink/Intrado will build and maintain the ALI Steering Table on the ALI systems.

CenturyLink/Intrado will help support E9-1-1 troubleshooting in production as well as pre-production live ALI testing from the Host ALI perspective. The support CenturyLink/Intrado provides includes (i) pulling log files, (ii) monitoring ALI bids from the PSAP, (iii) monitoring data traffic between ALI and a wireless or VoIP provider's MPC/GMLC/VPC, and (iv) verifying that the ALI Steering Tables are configured correctly.

CenturyLink/Intrado will request that third-party providers and/or TSPs submit both ESRK shell records and requests in writing to CenturyLink/Intrado to build and maintain the ALI steering tables for all ESRK (shell record) TN ranges. To ensure accurate metrics reporting for Wireless and VoIP processing, NENA Company ID is required on all ESRK shell records.

2.4 A9-1-1 CAD INTEGRATION SERVICES

A9-1-1 CAD integration services enables delivery of A9-1-1 Enhanced Data Services via the CAD system in conjunction with working with the CAD Vendor. The CAD Integration services includes;

- ✓ ESMI Partner Guide
- ✓ Access over a VPN to the CenturyLink/Intrado ESMI test facility
- ✓ Sample non-runnable ESMI code
- ✓ Message examples for each service that will be integrated
- ✓ Test Plans and test cases for the chosen data services
- ✓ Service Descriptions/Specifications/message
- ✓ Time in the CenturyLink/Intrado ESMI Certification lab to validate A9-1-1 Enhanced Data Services end to end
- ✓ Engineering support by an engineering specialist.

2.5 A9-1-1 TXT29-1-1 OVERVIEW

The CenturyLink/Intrado A9-1-1 TXT29-1-1 service enables The NG9-1-1 Customer PSAP to receive an emergency Request for Assistance (RFA) sent via an SMS text message. A9-1-1 TXT29-1-1 services provides a messaging gateway, routing services and a communications interface with the CenturyLink/Intrado Power 9-1-1 system for emergency service requests sent via SMS text messages to 9-1-1. The CenturyLink/Intrado A9-1-1 TXT29-1-1 service and the Private IP network to a particular NG9-1-1 Customer PSAP comprise the A9-1-1 TXT29-1-1 solution.

This A9-1-1 TXT29-1-1 overview is based off of the current CenturyLink/Intrado architecture. As CenturyLink/Intrado and CTL evolve to fully support the i3 interfaces the description and diagrams will be updated accordingly.

The A9-1-1 TXT29-1-1 solution is designed to route both currently deployed messaging protocols (SMPP) and i3 compliant SIP messages to the serving PSAPs via the ESInet as shown in figure 1.

For SIP messages that are i3 compliant, the messages are routed via a Border Control Function to the ESRP for routing to the serving PSAP. For messages that are current industry standard protocols (SMPP), the CenturyLink/Intrado Emergency Text Control Center ("TCC") system will simultaneously process, route, and track emergency text dialogues for multiple NG9-1-1 Customers.

The TCC, on receipt of a new SMS message, requests the location of the Request Initiator (RI) from the Wireless Carrier Location Server (WCLS). The WCLS returns the location information of the RI. The TCC receives the location information, and transfers the SMS message to the Emergency Services Routing Proxy (ESRP). The ESRP routes the SMS text message to the Terminating ESRP at the NG9-1-1 Customer PSAP based on the location returned from WCLS and the associated NG9-1-1 Customer PSAP jurisdiction as returned by the ECRF.

The ESRP establishes a session with the Terminating ESRP, at the NG9-1-1 Customer PSAP, which results in notification of an incoming text RFA (a flashing 'TEXT' button on the Power 9-1-1 Workstation screen). The NG9-1-1 Customer PSAP call taker can select the TEXT and thus establish a dialogue with the RI. Thereafter the call taker uses CenturyLink/Intrado Power 9-1-1 to send and receive text messages with the RI. The call taker releases the session when it is determined that the text dialogue is complete.

2.5.1 A9-1-1 TXT29-1-1 Service Features

The CenturyLink/Intrado A9-1-1 TXT29-1-1 Service includes the following features:

- ✓ Interconnection with SMS networks for routing text messages sent to 9-1-1 via the ESInet Point of Interface (POI)
- ✓ Visual alert to call taker that an emergency RFA message has arrived
- ✓ Ability to accept, complete, and place in queue any incoming text messages
- ✓ Pre-loaded and configurable messages to make responses quick and efficient

- ✓ Configurable in-coming text message queue. Any texts over the maximum will be told to place a voice call to 9-1-1.
- ✓ Ability to respond to a text message RFA while on a voice call, if they so choose.
- ✓ Geographically redundant and diverse ESInet POIs, systems, and networks Ability to route all new text messages to a backup PSAP at the PSAPs request for the purpose on undertaking maintenance on the Primary PSAP equipment or off loading a primary PSAP that is becoming overloaded with calls.
- ✓ Ability to automatically failover to a back-up PSAP if connectivity to the primary PSAP is lost or text equipment at the PSAP fails
- ✓ Ability to provide a test text number that can be used for training or ensuring end to end connectivity. The test number will behave as 9-1-1 and test text routing will be based on caller location. Where a back-up PSAP is involved, test traffic can be routed to either the primary or back-up as requested by the PSAP.
- ✓ SIP based interface with the CenturyLink/Intrado Power 9-1-1 system
- ✓ Redundant, secure IP connectivity between the NG9-1-1 Customer PSAP and CenturyLink/Intrado for A9-1-1 TXT29-1-1 service using the dual IP MPLS networks connected to the CenturyLink/Intrado dual TSS/ESRP sites (ESInet)
- ✓ Log retention of text dialogues (refer to Section **Error! Reference source not found.**)
- ✓ Implementation services, Training, and Customer Technical Support

Only text messages where the Request Initiator's location appears to fall within the NG9-1-1 Customer PSAP's boundaries will be routed into the NG9-1-1 Customer PSAP message queue. Text messages which do not fall within a NG9-1-1 Customer's PSAP boundary will not be routed, and a text response will be sent stating that text to 9-1-1 is not supported and the Request Initiator should dial 9-1-1.

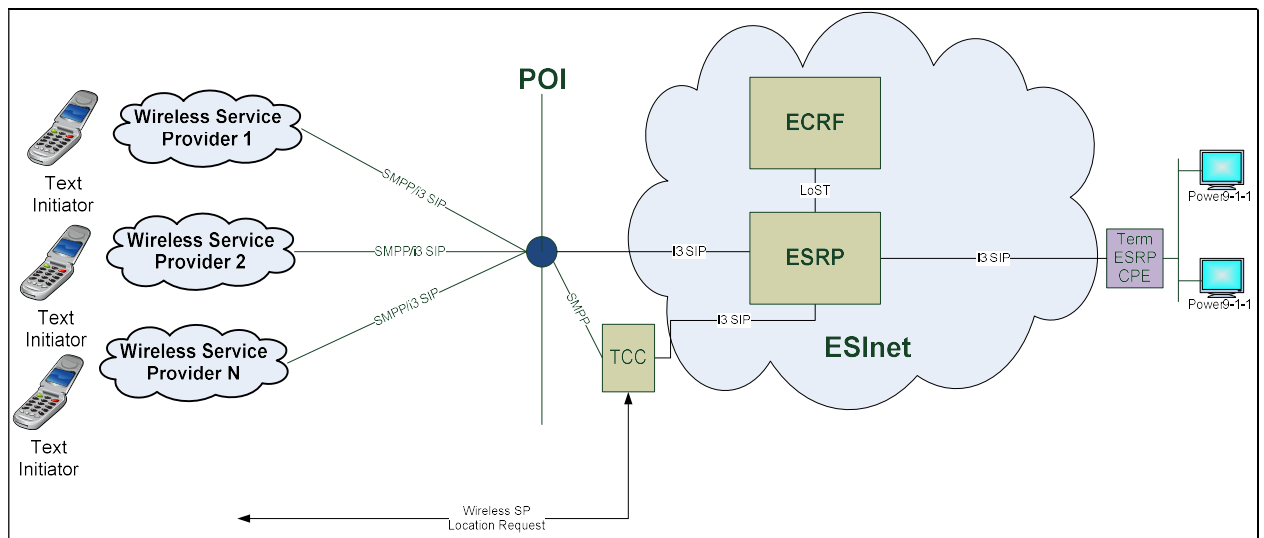


Figure 5: A9-1-1 TXT29-1-1 Components

2.5.2 Sample Message Flow

The following is a sample message flow to illustrate how the A9-1-1 TXT29-1-1 Service will work (see Figure 1) for a current deployed industry standard protocol SMPP; further updates reflecting i3 delivered messages from the WSPs will be provided as an update to this Service Guide:

1. A RI sends a text message to 9-1-1.
2. The text request is routed through the wireless service providers (WSP) network to the ESInet POI.
3. Text message is sent to the ESInet POI and routed to the TCC with a WSP identifier
4. TCC queries the WSP with a cell sector identifier request.
5. The WCLS returns the RI location information to the CenturyLink/Intrado TCC. If the location information is not received back from the WCLS within a configurable time period, the ESRP responds back with a standard text message stating that text service is not available
6. TCC converts to SIP message and establishes the SIP session/caller TN association and sends a NG9-1-1 Customer PSAP request to the Emergency Call Routing Function (ECRF). The ECRF determines the PSAP jurisdiction of the RI and returns the routing instructions to the ESRP.
7. The ESRP routes the text message over the ESInet to the serving NG9-1-1 Customer PSAP Terminating ESRP. The PSAP terminating ESRP processes the request and displays the new SMS request on each of the text configured Power 9-1-1 screens connected to the PSAP terminating ESRP. Systems may be configured in a "ring all" scenario so the next available call-taker can answer the request.
8. A NG9-1-1 Customer PSAP call taker selects the new text message by selecting the flashing button on the Power9-1-1 workstation and sends a dialogue back to the RI via the return path. This dialogue back may be a pre-loaded message which the call taker can

select, a modification of the call taker's pre-loaded message, or the call taker's own specific message created by typing it into the message return field.

9. The NG9-1-1 Customer PSAP call taker uses the Power 9-1-1 interface to view and exchange text messages with the RI.
10. The NG9-1-1 Customer PSAP call taker will close the text dialogue through the Power 9-1-1 interface when the text dialogue is complete.
11. If NG9-1-1 Customer PSAP call-taker is unable to select the flashing button indicating a text message within a configurable time window, the TCC responds back with a standard text message stating that text service is not available.
12. Text messages will be presented to call-takers whether they are on current 9-1-1 call or not. If they choose, call-taker may respond to text messages while on voice 9-1-1 call.
13. There are two configurable parameters related to text message rejection:
 - Maximum text message load: A maximum number of concurrent text messages to be handled within the NG9-1-1 Customer PSAP (number including those in progress and those ringing in queue). Once this limit is reached, any further text message received from ESRP will be automatically rejected until a text message is released by one of the Power 911 positions.
 - Ring timeout: For each text message handled at the NG9-1-1 Customer PSAP, if the message is not answered within the "ring timeout" time period, the text message will be automatically rejected.

2.5.3 User Interface

The TXT29-1-1 for Power 9-1-1 interface provides the following functions for TXT29-1-1 Service:

- ✓ Accept, complete, and put-on-hold incoming text message sessions
- ✓ Display of the MDN/Call-back number (CBN) of the wireless device initiating the SMS text messageWindow for viewing an in-process text dialogue
- ✓ Display a 'Delivery Receipt' notifying NG9-1-1 Customer PSAP call takers that the message sent to the SMS Request Initiator had been received by the handset
- ✓ Text entry window for entering and sending a SMS text response to the Request Initiator
- ✓ Dialogue closure button for closing the dialogue

The CenturyLink/Intrado TCC system will queue text message requests to a dedicated on-screen Text Message Queue Button on each workstation configured for this feature. The number of Requests for Service that can be queued is configurable. When this upper limit is exceeded, a new text message request for assistance will not be added to the TCC Text Message Queue, and a system unavailable/call 9-1-1 response will be sent to the RI.

2.5.4 A9-1-1 TXT29-1-1 for Power 9-1-1 Service Limitations/Dependencies

The following are limitations of the CenturyLink/Intrado A9-1-1 TXT29-1-1 for Power 9-1-1 Service: The Service cannot be enabled until Customer's ILEC has modified their network to route to the CenturyLink/Intrado ESInet POI.

CenturyLink/Intrado's responsibility for Request for Assistance (RFA) text message routing and processing begins when text messages have been delivered to the ESInet POI and is limited to the routing and delivery of text messages from CenturyLink/Intrado to the identified NG9-1-1 Customer PSAP call taker. CenturyLink/Intrado is not responsible for the delivery or timing of SMS Request for Assistance text messages through the SMS networks nor for the time taken to deliver the test message back to the RI after it passes the POI..

Though CenturyLink/Intrado operates redundant messaging gateway systems via the ESInet, serious system or network failures could result in the TXT29-1-1 services being temporarily unavailable. Due to the SMS network and/or wireless carrier servers, new and in-process text dialogues could be delayed or lost. In this circumstance, the RI will receive a message stating that the Service is not available and to contact 9-1-1 through other means.

There is currently no transfer capability in the TXT29-1-1 Services. If a request is determined to belong to another PSAP/Agency or to another position within the PSAP, the RI will either have to call 9-1-1 or the call taker will have to call the other PSAP/Agency/Position and relay the message via voice.

NG9-1-1 Customer PSAP call taker cannot initiate a text session with a caller.

Conference, "barge-in" and administrative monitoring functionality are not supported.

The Power 9-1-1 interface will not bid the ALI system nor receive an ALI response for text messages. No ALI-like data will be provided for text messages.

The TXT29-1-1 Service is an emerging technology and is not a replacement for established landline and wireless 9-1-1 services. The TXT29-1-1 Service relies on industry SMS infrastructure which is

not built to public safety standards, and may include increased latency and the potential for dropped messages.

2.5.5 A9-1-1 TXT29-1-1 for Power 9-1-1 Service Dependencies

- For text to be enabled at the PSAP,
 - The Power9-1-1 release has to be 5.3 or higher
 - The SAUA application needs to be installed in the object or database servers
 - Each workstation that is text enabled will need to be configured
 - Power LAN needs to be connected to the PSAP IP connectivity
- The TXT29-1-1for Power 9-1-1 Service requires that mobile phones be text-enabled and capable of sending properly formatted text messages.

2.5.6 CenturyLink/Intrado Responsibilities

2.5.6.1 Communications Equipment

CenturyLink/Intrado will provide and install communications equipment, including two (2) routers/switches for installation at the NG 9-1-1 Customer site to support IP connectivity to each geographically redundant TCC/ESRP Node. The CenturyLink/Intrado-provided communications equipment will be installed in the NG 9-1-1 Customer-provided racks.

2.5.6.2 IP Connectivity Monitoring

CenturyLink/Intrado shall monitor the CenturyLink/Intrado-provided communications equipment and IP connectivity 24/7.

2.5.6.3 SMS Network Interconnection

CenturyLink/Intrado will interconnect with a participating Wireless Carrier network/Carrier Service Provider and route messages to the NG9-1-1 serving PSAP. Only 9-1-1 text traffic originating from the participating Wireless carrier subscribers will be routed to the NG9-1-1 Customer PSAPs.

2.5.6.4 Service Availability

Availability measurement for components between the ESInet POI at CenturyLink/Intrado data centers and the NG9-1-1 Customer PSAP shall be 99.9%. No single point of failure will cause a service outage.

Txt29-1-1 will have an availability of 99.9% calculated on a monthly basis via the formula $(TMM - TMU)/TMM$ where TMM is the Total Monthly Minutes and TMU is Total Monthly Minutes Unavailable excluding planned and Customer notified downtime for infrastructure maintenance.

2.5.6.5 End-to-end Testing and Acceptance

CenturyLink/Intrado will work with Customer and the wireless service providers to develop an end-to-end system Acceptance Test Plan (ATP). After the IP connectivity has been established, communications equipment and the CPE system upgrade has been completed, CenturyLink/Intrado will work with Customer to execute the ATP per a mutually agreed upon schedule. A9-1-1 TXT29-1-1 Services will be deemed accepted within 10 business days after the completed ATP is delivered to Customer unless Customer gives written notice of rejection, specifying defects, within the 10 business days.

In the event that defects are determined during the ATP or by Customer, CenturyLink/Intrado will fix such defects or agree with Customer a mutually acceptable work around. Use of A9-1-1 TXT29-1-1 service by the NG9-1-1 Customer PSAPs in a live production environment, regardless of completion of ATP or any rejection notice, will be deemed acceptance.

CenturyLink/Intrado will work with Customer to identify and document back-out or production turn down procedures for the removal of the A9-1-1 TXT29-1-1 Service as necessary.

2.6 Software Release Upgrades

CenturyLink/Intrado will complete and install regularly scheduled software release upgrades on the CenturyLink/Intrado A9-1-1 systems. CenturyLink/Intrado Program Manager will inform A9-1-1 Customer PSAP of software release upgrades within 10 business days from which they become available.

CenturyLink/Intrado maintains and follows documented processes for all software development and release upgrades in accordance with its ISO certification. CenturyLink/Intrado will test software release upgrades and CenturyLink/Intrado initiated engineering changes prior to installation on A9-1-1 Services systems.

CenturyLink should plan for one to two major or feature releases each year, with additional patch releases if needed to address Severity 1 or Severity 2 issues. Critical service affecting upgrades will be planned for application within 30 days of release. CenturyLink/Intrado will provide CenturyLink advance notification within 10 business days of all scheduled release upgrades where applicable per the guidelines within this guide.

A9-1-1 VIPER upgrades may require coordination of work to be performed on customer premise equipment by CenturyLink. Notification of A9-1-1 VIPER changes shall be covered via the existing GR209-CORE product announcement process already in place and coordination of CenturyLink technicians for premise-based work will be coordinated through CenturyLink/Intrado's project management office.

2.7 Scheduled Maintenance and Upgrades

CenturyLink/Intrado will schedule planned events for all A9-1-1 Services system maintenance or upgrades that may impact CenturyLink A9-1-1 Customer's PSAPs. The CenturyLink/Intrado Program Manager will send a notification to CenturyLink for each planned event a minimum of 24 hours in advance of the scheduled start time.

CenturyLink/Intrado may also have a periodic need to perform proactive system maintenance to prevent an imminent or likely system failure. The risk posed by the system issue may not allow CenturyLink/Intrado to provide CenturyLink with a 24 hour notice for this type of event, called emergent events.

For non-A9-1-1 Customer PSAP equipment CenturyLink/Intrado will fully manage and complete scheduled maintenance and upgrades with a trained event management team, facilitating the change implementation, monitoring, and communication through the length of the event.

2.7.1.1 Pricing – Randolph County Main(12), Backup (9), Archdale PD (1)

Phase II Services must be purchased within 6 months after cutover of Phase I services for Special Pricing to be applicable.

Intrado A911 Viper

- Based on 12 Primary Positions / 9 Backup Positions and 1 Secondary PSAP w 1 Position

A911 Viper Services

- Implementation Services
- A9-1-1 ALI Data Management
- A9-1-1 VIPER
- A9-1-1 Routing
- A9-1-1 GIS Data Management Services and Software
- A9-1-1 Mapping
- A9-1-1 TXT2-9-1-1
- Geo-Spatial Ready

CenturyLink 24X7X365 Support

- Local Technical Support
- Repair Parts Exchange
- Tier I Support

One Time Charge: \$67,300.00

Monthly Recurring Charge:\$54,439.92*



2.8 Pricing – Randolph County Main(12) – Phase I

Intrado A911 Viper- Phase I

- Based on 12 Primary Positions (New Randolph County Main)

A911 Viper Services

- Implementation Services
- A9-1-1 ALI Data Management
- A9-1-1 VIPER
- A9-1-1 Routing
- A9-1-1 GIS Data Management Services and Software
- A9-1-1 Mapping
- A9-1-1 TXT2-9-1-1
- Geo-Spatial Ready

CenturyLink 24X7X365 Support

- Local Technical Support
- Repair Parts Exchange
- Tier I Support

One Time Charge: \$50,016.66

Monthly Recurring Charge:\$36,757.63



2.9 Pricing – Archdale PD (1) – Phase I

Intrado A911 Viper- Phase I

- Based on 1 Secondary Position (Archdale PD)

A911 Viper Services

- Implementation Services
- A9-1-1 ALI Data Management
- A9-1-1 VIPER
- A9-1-1 Routing
- A9-1-1 GIS Data Management Services and Software
- A9-1-1 Mapping
- A9-1-1 TXT2-9-1-1
- Geo-Spatial Ready

CenturyLink 24X7X365 Support

- Local Technical Support
- Repair Parts Exchange
- Tier I Support

One Time Charge: \$4,300.00

Monthly Recurring Charge: \$1,025.00



2.10 Pricing – Randolph County Backup (9) – Phase II

Intrado A911 Viper- Phase II

- Based on 9 Primary Positions (Randolph County Backup)

A911 Viper Services

- Implementation Services
- A9-1-1 ALI Data Management
- A9-1-1 VIPER
- A9-1-1 Routing
- A9-1-1 GIS Data Management Services and Software
- A9-1-1 Mapping
- A9-1-1 TXT2-9-1-1
- Geo-Spatial Ready

CenturyLink 24X7X365 Support

- Local Technical Support
- Repair Parts Exchange
- Tier I Support

One Time Charge: \$12,983.34

Monthly Recurring Charge:\$16,657.29



2.11 Additional Charges If NG911 Services Not Purchased From CenturyLink

Pricing

Additional Charges From CenturyLink*

Monthly Recurring Charges

- ANI / Database Maintenance

Monthly Recurring Charge:\$4,432.50**

*Charges From Other LECs Serving Randolph County May Apply
** Charges Bundled Into The CenturyLink NG911 Proposal



FEBRUARY 12, 2015



Carolina Recording Systems, LLC
SALES PROPOSAL

RANDOLPH COUNTY EMERGENCY SERVICES
ASHEBORO, NORTH CAROLINA



Carolina Recording Systems, LLC

PO Box 11311
Charlotte, NC 28220
derrick.duggins@crsnc.com
(919) 302-2297

Justine Buxton
Randolph County Emergency Services
152 North Fayetteville St.
Asheboro, NC 27203

Justine,

Carolina Recording Systems is pleased to present this proposal for a mission critical voice logger for Randolph County Emergency Services. This proposal details our recommended approach to meet and exceed the County's recording needs and requirements.

Carolina Recording Systems prides itself in offering a relationship focused service to each of our customers. Headquartered in Charlotte, NC we are easily accessible to Randolph County with a commitment to provide full-time certified technicians with minimal response times when servicing routine maintenance requests and mission critical emergency needs.

Carolina Recording Systems brings to this project over 14 years of recording experience as a company along with a team possessing decades of experience and knowledge of technical solutions as well as operational knowledge of best practices from the user perspective.

We thank you and look forward to the continued relationship built with your organization. If there are any questions you may have regarding this proposal or our company, please feel free to reach out and contact us.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Duggins', is written over a horizontal line.

Derrick M. Duggins
Carolina Recording Systems

CAROLINA RECORDING SYSTEMS

COMPANY BACKGROUND

Carolina Recording Systems is a leading distributor, installer, and service provider of communication recording systems. Operating since 2001, we pride ourselves in providing reliable products designed specifically to meet the needs and requirements of mission-critical call centers.

Knowing the importance of personal relationships, customer service and accessibility, our primary focus is being a high touch service provider to fill a void we see in our industry. Carolina Recording Systems continues to add local service technicians even as others continue the trend of diminishing that support.

Our continued success as a solutions provider is attributed to our company's ability to:

- specialize in selling, installing, and servicing communication recording systems designed specifically for mission-critical call centers.
- only focus on recording systems and solutions, which allows us extensive knowledge of the products and the industries we serve.
- be the trusted expert of recording systems and solutions for our customers.
- provide and service multiple solutions in order to provide customized approach.
- continually monitor and evaluate manufacturers' developments.
- ensure our technicians are certified and continue to receive up-to-date vendor training.
- always do what is right.

CRS full-time technicians provide comprehensive on-site service and training and are strategically located throughout our geographic territory. Although we believe there is no substitute for on-site visits, we do have the capabilities to do remote-in work and provide 24/7 response.

Our relationship focus keeps us thoroughly involved in national and local APCO and NENA chapters thus providing an opportunity to stay abreast of the latest industry needs and opportunities.

RANDOLPH COUNTY EMERGENCY SERVICES

SYSTEM REQUIREMENTS

The following recording requirements were discovered for the Randolph County Emergency Services:

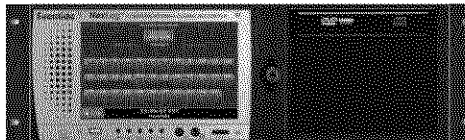
RESOURCES TO BE RECORDED

Primary Recorder

Qty	Resource	Method
9	E911 Trunk Lines	Analog
8	Non-Emergency Phone Lines	Analog
9	Cassidian Phone Positions	VoIP
9	Cassidian Phone Positions	Analog
50	Radio Channels	Analog
9	CAD Screen Record Workstations	Screen Record

CRS SOLUTION

To fulfill the recording requirements of Randolph County Emergency Services, we are proposing the Eventide NexLog communications recording system. This specific solution recommendation has been crafted to provide the highest level of redundancy, security, and usability to record up to 112 total (16 VoIP, 96 Analog) audio channels.



Qty	Purpose
1	88 Channel NexLog 740 Recorder
1	24 Chanel NexLog 740 Recorder
2	Front-Panel Display
2	8 pack MediaWorks Plus Web Client Concurrent Users
1	NENA ANI/ALI CAD Spill Integration or SMDR
1	Screen Recording for 10 PC Workstations
1	45 Baud Analog TTY Decoder for TDD & SMS-to-911
1	GeoFence Search and View Location on Google Maps
1	Central Archive License
1	GenWatch Integration License
1	Quality Factor Call Evaluation

THE EVENTIDE NEXLOG 740

A purpose-built Linux operating system configured with multiple levels of resilience, including dual hot-swap redundant power supplies, redundant hard disk drives, redundant network capability (via NIC bonding), and multiple choices for archive redundancy and network archiving to another NexLog recorder. **Eventide's recording systems are designed, assembled, tested and supported exclusively in the USA.**

Configuration, playback, retrieval, and incident management is accessed via a secured web interface. The web-based application eliminates the need for software to install or updates to manage. The system can also be accessed over a VPN without the need to install additional software, creating a simplified PC deployment process.

A multi-tier security system controls user access based on role and channel assignments. Password policy options include complexity enforcement, automatic aging, change reminders, expiration, and lock-out. System access can also be controlled by an SMB share or active directory. In addition, each user's access and actions are audited and available for review.

THE INTEGRATED 7" COLOR LCD TOUCH SCREEN DISPLAY

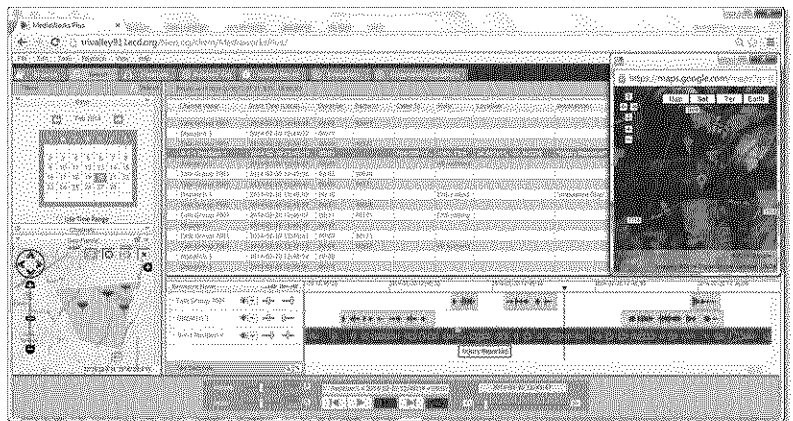
Provides convenient control and replay at the server's front panel. Users can view the current status of each channel and each archive, receive visual and audible alerts, live monitor channels, and fully administer the configuration manager software. This feature also serves as an interface for direct connection to the recorder in the event of a network failure.

HOT SWAP RAID STORAGE (12TB-PRIMARY; 1TB REDUNDANT)

Combines multiple disk drive components into a logical unit for the purpose of data redundancy and performance improvement. Data is distributed across the drives. Upon failure of a single drive, subsequent reads can be calculated from the distributed parity such that no data is lost.

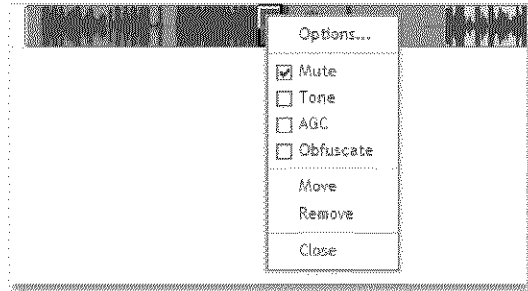
MEDIAWORKS PLUS

Browser-based software provides a comprehensive set of easy-to-use tools for search, replay, instant recall, incident reconstruction and call export. Capabilities include live call monitoring, multi-parameter search, multiple-call replay via graphical time-line with pan/zoom, waveform displays, variable-speed replay, drag and drop into incident tabs, call notes, text annotations, redaction, obfuscation, and protection. The incident reconstruction software helps users quickly find and export recordings via email, DVD or Blu-Ray.



IDENTITY PROTECTION

The voice obfuscation and redaction tool allows the user to modify and export recordings with silence, beep tones, and increased volume in the selections you choose. It also allows the pitch of the dispatcher or caller's voice to be altered for privacy purposes. The original call is left in its original, unaltered form for legal authenticity verification. This feature was designed specifically to assist PSAPs with meeting Freedom of Information Act request, while still complying with the NC General Statute § 132-1.4 concerning identity protection.



ANI/ALI TAGGING

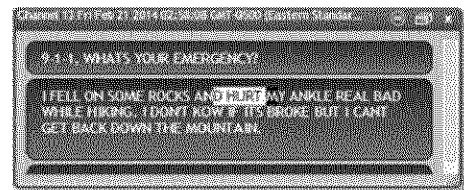
ANI/ALI Tagging is done on all incoming ANI/ALI information to the console positions. ANI would be tagged to the console phone position recording and is captured via the NENA standard CAD interface.

SCREEN RECORDING

Captures desktop PC activity, including multimedia interactions which can be viewed along with the calls for training, verification, incident recreation, and exporting.

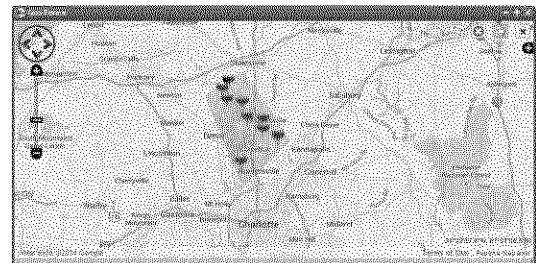
TTY/TDD DECRYPTION

Allows the system to decode the baudot codes from TTY/TDD calls. The system will store the decoded text for search and incident recreation. TTY/TDD decoding also captures and stores SMS messages sent via the "SMS to 9-1-1" interim standard.



GEO-FENCE SEARCH

Utilizes Google Maps and allows searching by a polygonal geographic area or circular radius. All calls/radio transmissions with a latitude/longitude can be displayed in real time on a heat/saturation map. Local proprietary maps can be added/utilized as well for an additional fee.



CONTACT CLOSURE DETECTION

Provides definitive start and stop commands to the recorder so back-to-back calls at the console are recorded as individual interactions. Recordings begin at the exact moment a call is answered and terminate as soon as the call is released, which eliminates the problem associated with VOX triggering where calls are merged into single recordings or separated due to silence.

QUALITY FACTOR

Quality Factor is call evaluation software that helps managers evaluate and quantify call taker proficiency in each area of performance specific to a communications center. Quality Factor includes an Evaluation Form builder to quickly design forms that identify key performance results on an individual, shift, and center basis. Quality Factor helps focus on areas that need improvement, provide analytical support data to bolster budgetary requests, and address citizen or government quality/performance inquiries.

OFFICIAL GSA QUOTE

The following 4 pages are the official quote provided by Carolina Recording Systems.

We are pleased to be able to extend GSA discounted pricing, the use of the GSA contract has been a welcome offering due to meeting most formal and informal County, City and State acquisition guidelines.

Pages 1 and 2 contain the summary quote showing each item with its applicable GSA discount.

Page 3 shows individual items broken down with their GSA Special Item Numbers (SIN). This information, as well as the information below can be used by your purchasing department to verify Eventide, Inc.'s participation with the General Services Administration.

Page 4 presents a recording layout for the proposed system.

Eventide, Inc. is listed with the General Services Administration (GSA) and their Federal Acquisition Service (FAS) as an authorized contractor for IT Equipment, Software, and Services. The attached proposal is based on the federal GSA Contract number GS-35F-0415V, which is flagged for Cooperative Purchasing. The Cooperative Purchasing program allows the federal contract to be used by State and Local government (reciprocal agreement), which alleviates the need to go through a redundant bid process.

Contract# GS-35F-0415V

Direct Verification Link to their Profile:

<http://www.gsaelibrary.gsa.gov/ElibMain/contractorInfo.do?contractNumber=GS-35F-0415V&contractorName=EVENTIDE+INC.&executeQuery=YES>

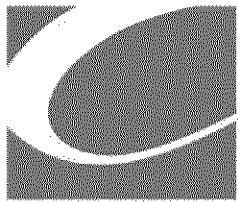
They are listed under the following procurement categories:

IT Schedule 70

SIN 132-8 PURCHASE OF EQUIPMENT

FSC CLASS 7010 - SYSTEM CONFIGURATION

FSC CLASS 7025 - INPUT/OUTPUT AND STORAGE DEVICES



Carolina Recording Systems, LLC
PO Box 11311
Charlotte, NC 28220
CRS

QUOTE

FOR: 112-Channel NexLog Communications Recording System

Randolph County Emergency Services
152 North Fayetteville St.
Asheboro, NC 27203

Justine Buxton
(336) 318-6912
justine.buxton@randolphcountync.gov

Date	2/12/15
Valid Through	5/12/15

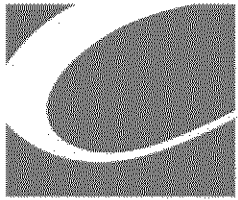
Estimated Delivery	Terms	GSA Contract Number	Quote Number
4 to 6 Weeks	NET 30	GS-35F-0415V	CRSQ1514

Line	Qty	Model	Description	Unit Price	Ext. Price
1			112-Channel Communications Recording System		
2	1	NexLog740	<p>NexLog 740 Logging Recorder This Eventide NexLog recording server will be configured to record up to 72 Analog channels and 16 VoIP channels. The 3U rack-mount recording chassis contains 12TB of RAID5 storage and a Linux Operating System.</p> <p>Recording Solution Includes:</p> <ul style="list-style-type: none">- Front-Panel Display- Redaction- Instant Recall- Real-Time Monitor- Quality Assurance- Screen Recording- Central Storage of Incidents- Comprehensive Search- ANI/ALI Metadata Integration- Geo Map Display and Search- GenWatch Integration	\$54,341.00	\$54,341.00
3	1	NexLog740	<p>NexLog 740 Logging Recorder This Eventide NexLog recording server will be configured to record up to 24 Analog channels. The 3U rack-mount recording chassis contains 1TB of RAID1 storage and a Linux Operating System.</p> <p>Recording Solution Includes:</p> <ul style="list-style-type: none">- Front-Panel Display- Redaction- Instant Recall- Real-Time Monitor- Central Storage of Incidents- Comprehensive Search- Screen Recording- Central Archive License	\$22,230.00	\$22,230.00
4			Equipment List Price:		\$76,571.00

Derrick Duggins
Phone: 1-888-776-0202
Fax: 1-888-776-0201
E-mail: sales@crsnc.com
Help Desk : (888) 661-0202

Installation Notes:
Customer's radio and telephone vendors should provide the proper inputs, identified and terminated within 6 feet of the recorder's physical location.

Warranty Notes:
System Upgrade is covered under existing service agreement with 24/7 on-site service response.



Carolina Recording Systems, LLC
PO Box 11311
Charlotte, NC 28220
CRS

QUOTE

FOR: 112-Channel NexLog Communications Recording System

Randolph County Emergency Services
152 North Fayetteville St.
Asheboro, NC 27203

Justine Buxton
(336) 318-6912
justine.buxton@randolphcountync.gov

Date	2/12/15
Valid Through	5/12/15

Estimated Delivery	Terms	GSA Contract Number	Quote Number
4 to 6 Weeks	NET 30	GS-35F-0415V	CRSQ1514

Line	Qty	Model	Description	Unit Price	Ext. Price
5	1	XXXX	Professional Services: Includes pre-installation site survey, installation, testing and unlimited training.	\$2,500.00	\$2,500.00
6			Solution List Price SubTotal:		\$79,071.00
7			GSA Discount (Based on GSA Contract Number GS-35F-0415V)		-\$11,485.65
8			SOLUTION TOTAL:		\$67,585.35

Derrick Duggins
Phone: 1-888-776-0202
Fax: 1-888-776-0201
E-mail: sales@crsnc.com
Help Desk : (888) 661-0202

Installation Notes:
Customer's radio and telephone vendors should provide the proper inputs, identified and terminated within 6 feet of the recorder's physical location.

Warranty Notes:
System Upgrade is covered under existing service agreement with 24/7 on-site service response.

Randolph County 911 Eventide Recording System

(Based on GSA Contract NO. GS-35F-0415V)

Part Number	Description	Quantity	List Price (Each)	List Price (Extended)	GSA Price (Each)	GSA Price (Extended)
NexLog740-Primary						
List Total(\$54,341.00) - GSA Total(\$46,189.85) = GSA Discount of \$8,151.15						
NexLog740	NexLog 740 base system: 3U rack-mount, Intel Core2 Quad CPU, Dual NIC, Embedded Linux, NexLog base software, web-based configuration manager. SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$7,995.00	\$7,995.00	\$6,795.75	\$6,795.75
105301	Integrated 7" Color LCD Touch Screen Display SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$1,295.00	\$1,295.00	\$1,100.75	\$1,100.75
105378	Upgrade to 4 x 4TB Hot Swap h/w RAID5 = 12TB storage SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$6,190.00	\$6,190.00	\$5,261.50	\$5,261.50
105321	One DVD-RAM Drive SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$0.00	\$0.00	\$0.00	\$0.00
108233-000	Dual hot-swap power supplies, 120/240VAC SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$0.00	\$0.00	\$0.00	\$0.00
105284-024	24-Channel Analog Card, 24 Ch. Licenses SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	3	\$6,000.00	\$18,000.00	\$5,100.00	\$15,300.00
109033-003	Quick Install Kit (9ft. Connector Cable & Punch Block) SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	3	\$220.00	\$660.00	\$187.00	\$561.00
271052	Internal IP Recorder w/ 8 G. 711 Ch. Licenses SIN: 132-33, FSC CLASS: 7010	1	\$4,250.00	\$4,250.00	\$3,612.50	\$3,612.50
271035	Add-on License Pack (Internal IP Recording Engine) with 8 Channel Licenses for G. 711 RTP/RoIP/NG911 SIN: 132-33, FSC CLASS: 7010	1	\$1,150.00	\$1,150.00	\$977.50	\$977.50
324469	Single-port 100/GB PCI Network Card SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	2	\$188.00	\$376.00	\$159.80	\$319.60
108109	Rack Mount Slides - 2 Post Center Mt., 3U (for NexLog 740) SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$450.00	\$450.00	\$382.50	\$382.50
209029	NENA ANI/ALI CAD Spill Integration or SMDR SIN: 132-33, FSC CLASS: 7010	1	\$3,495.00	\$3,495.00	\$2,970.75	\$2,970.75
271098	GeoFence Search and View Location on Google Maps SIN: 132-33, FSC CLASS: 7010	1	\$995.00	\$995.00	\$845.75	\$845.75
271083	MediaWorks Plus (Web Client) Concurrent Access for 8 users SIN: 132-33, FSC CLASS: 7010	1	\$995.00	\$995.00	\$845.75	\$845.75
271101	45 Baud Analog TTY Decoder for TDD & SMS-to-911 SIN: 132-33, FSC CLASS: 7010	1	\$1,995.00	\$1,995.00	\$1,695.75	\$1,695.75
271068	Smartnet Integration (customer-provided GenSpout) SIN: 132-33, FSC CLASS: 7010	1	\$5,000.00	\$5,000.00	\$4,250.00	\$4,250.00
271077	Call Evaluation base-level software (20 Agents, 2 Evaluators) SIN: 132-33, FSC CLASS: 7010	1	\$1,495.00	\$1,495.00	\$1,270.75	\$1,270.75
NexLog740- Redundant						
List Total(\$22,230.00) - GSA Total(\$18,895.50) = GSA Discount of \$3,334.50						
NexLog740	NexLog 740 base system: 3U rack-mount, Intel Core2 Quad CPU, Dual NIC, Embedded Linux, NexLog base software, web-based configuration manager. SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$7,995.00	\$7,995.00	\$6,795.75	\$6,795.75
105301	Integrated 7" Color LCD Touch Screen Display SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$1,295.00	\$1,295.00	\$1,100.75	\$1,100.75
105311	Upgrade to 2 x 1TB Hot Swap h/w RAID1 = 1TB storage SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$1,600.00	\$1,600.00	\$1,360.00	\$1,360.00
105321	One DVD-RAM Drive SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$0.00	\$0.00	\$0.00	\$0.00
108233-000	Dual hot-swap power supplies, 120/240VAC SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$0.00	\$0.00	\$0.00	\$0.00
105284-024	24-Channel Analog Card, 24 Ch. Licenses SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$6,000.00	\$6,000.00	\$5,100.00	\$5,100.00
109033-003	Quick Install Kit (9ft. Connector Cable & Punch Block) SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$220.00	\$220.00	\$187.00	\$187.00
108109	Rack Mount Slides - 2 Post Center Mt., 3U (for NexLog 740) SIN: 132-8, FSC CLASS: 7010, FSC CLASS 7025	1	\$450.00	\$450.00	\$382.50	\$382.50
271014	Central Archive License (for archive to another NexLog) SIN: 132-33, FSC CLASS: 7010	1	\$1,670.00	\$1,670.00	\$1,419.50	\$1,419.50
271071	Screen Recording system license w/ 10 PC Licenses SIN: 132-33, FSC CLASS: 7010	1	\$3,000.00	\$3,000.00	\$2,550.00	\$2,550.00
Professional Services						
X000	Professional Services: Includes pre-installation site survey, installation, testing and unlimited training Open Market Item	1	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00

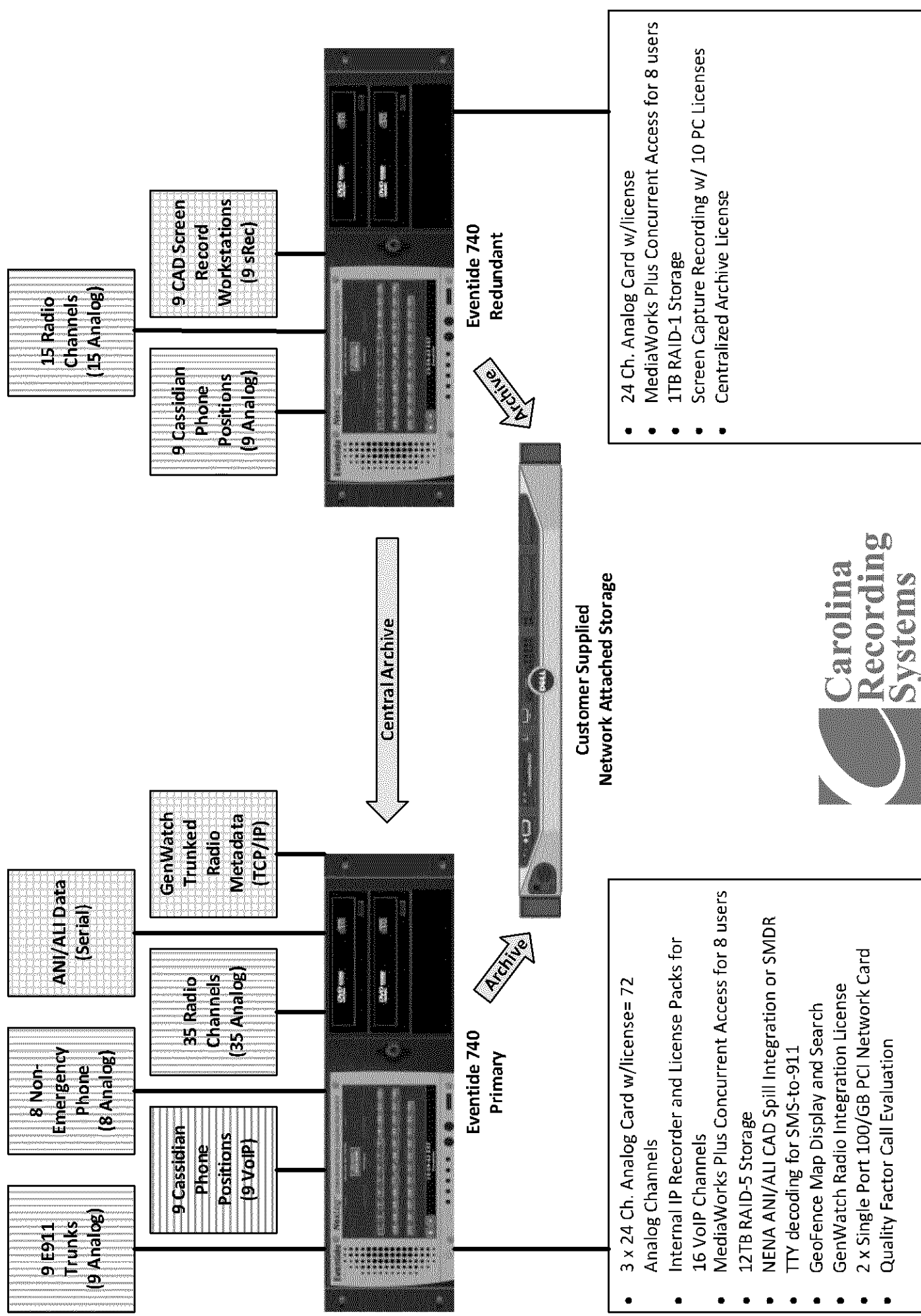
Item Sub-Total

\$79,071.00

\$67,585.35

Total Solution GSA Discount = \$11,485.65

Randolph County Eventide Layout



MarketSpace Solutions, Inc.

PO Box 221 Lincolnton, NC 28093

747 S Laurel St Lincolnton, NC 28092

Phone 704-736-1388 - Fax 704-736-1132

Q U O T E

Date	Quote #
02/05/16	MSSQ30193

Sold To: Randolph County Information Techn
Angie Greeson
725 McDowell Road
Asheboro, NC 27205

Phone: (336) 318-6313
Fax: (336) 636-7613

Ship To: Randolph County Information Techn
Angie Greeson
725 McDowell Road
Asheboro, NC 27205

Phone: (336) 318-6313
Fax: (336) 636-7613

Terms	Rep	P.O. Number	Ship Via
Net 30	Thad Lowe	quote	FedEx

Qty	Part Number	Description	Unit Price	Ext. Price
2	J9729A#ABA	HP 2920-48G-POE+ Switch - 44 Ports - Manageable - 7 x Expansion Slots - 10/100/1000Base-T - 48, 3, 4 x Network, Expansion Slot, Expansion Slot - Twisted Pair - Gigabit Ethernet - Shared SFP Slot - 4 x SFP Slots - 4 Layer Supported - Power Supply - 1U High - Rack-mountable	\$2,150.00	\$4,300.00
1	FRT	No Freight Charge	\$0.00	\$0.00

SubTotal	\$4,300.00
Estimated Sales Tax	\$290.25
Shipping	\$0.00
Total	\$4,590.25



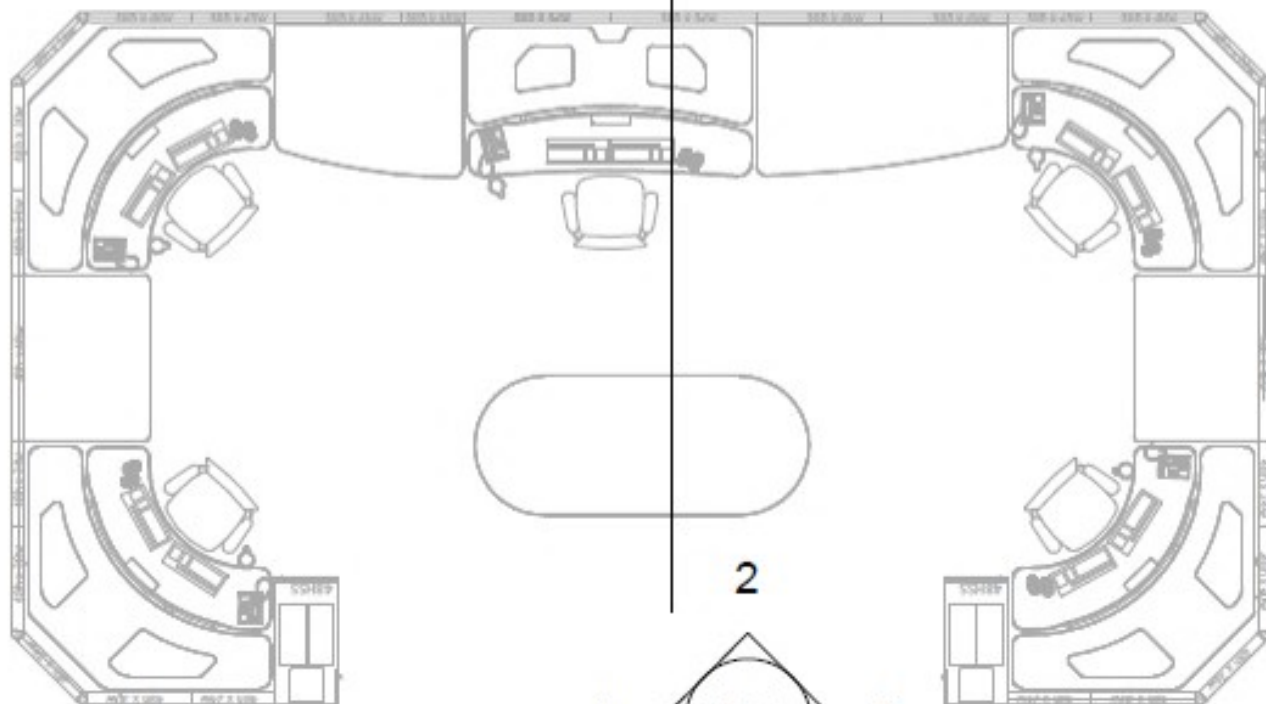
Proposal

DoubleRadius Inc.
2022 Van Buren Avenue
 Indian Trail NC, 28079

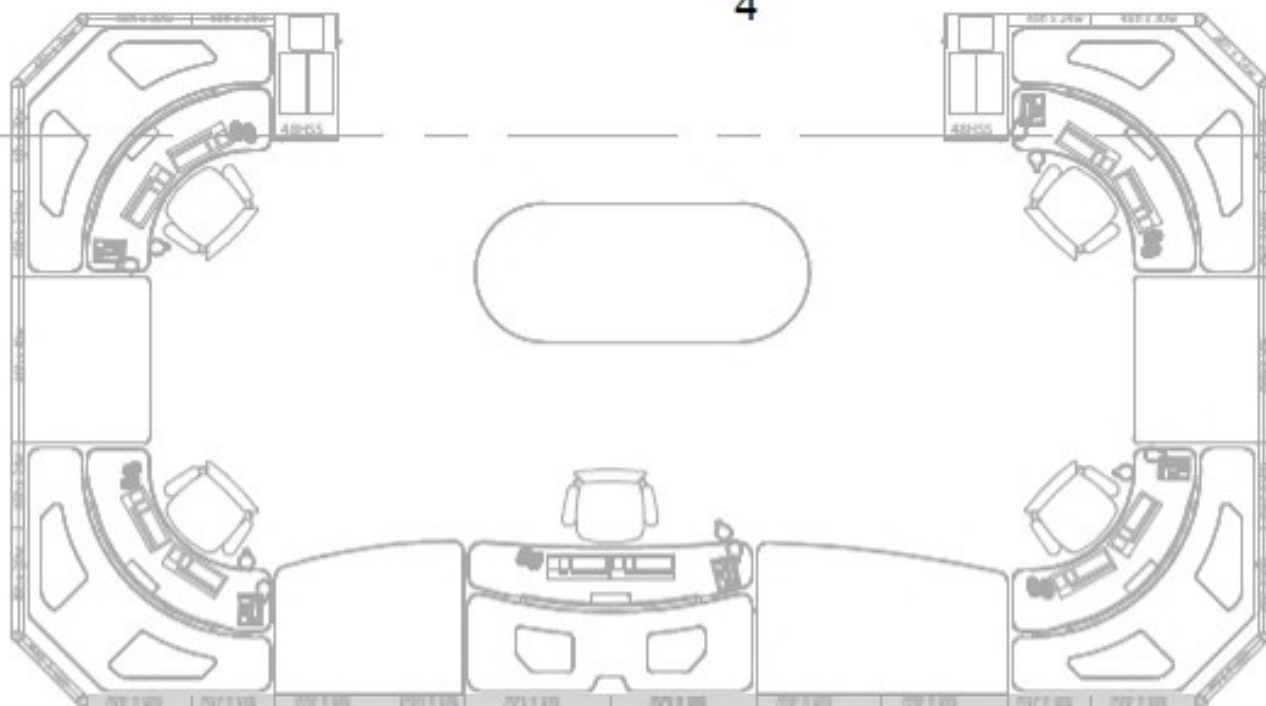
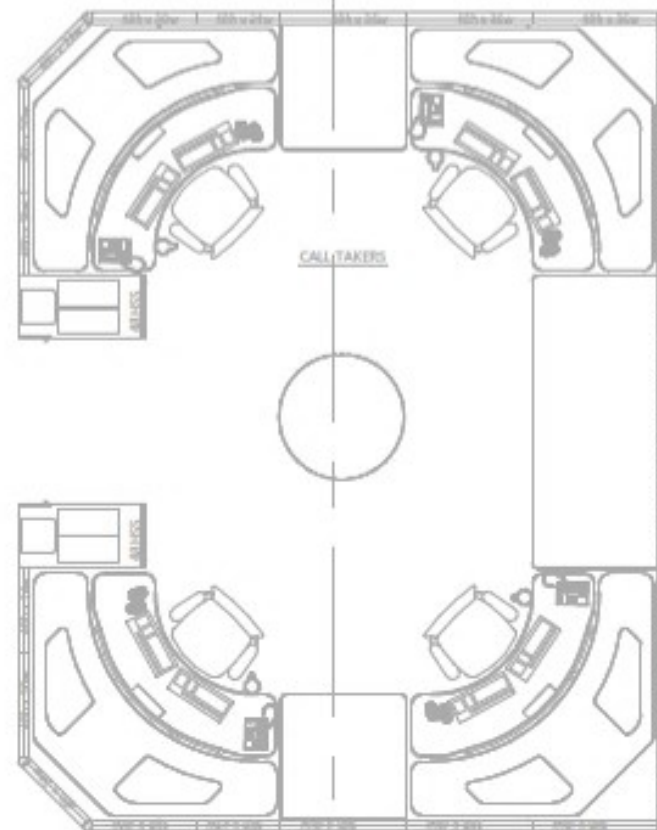
Alex Fields
 704-927-5414
alex@doubleradius.com

DATE: February 15, 2016
Quote # 213335
FOR: Randolph County 911
BILL TO: Randolph County

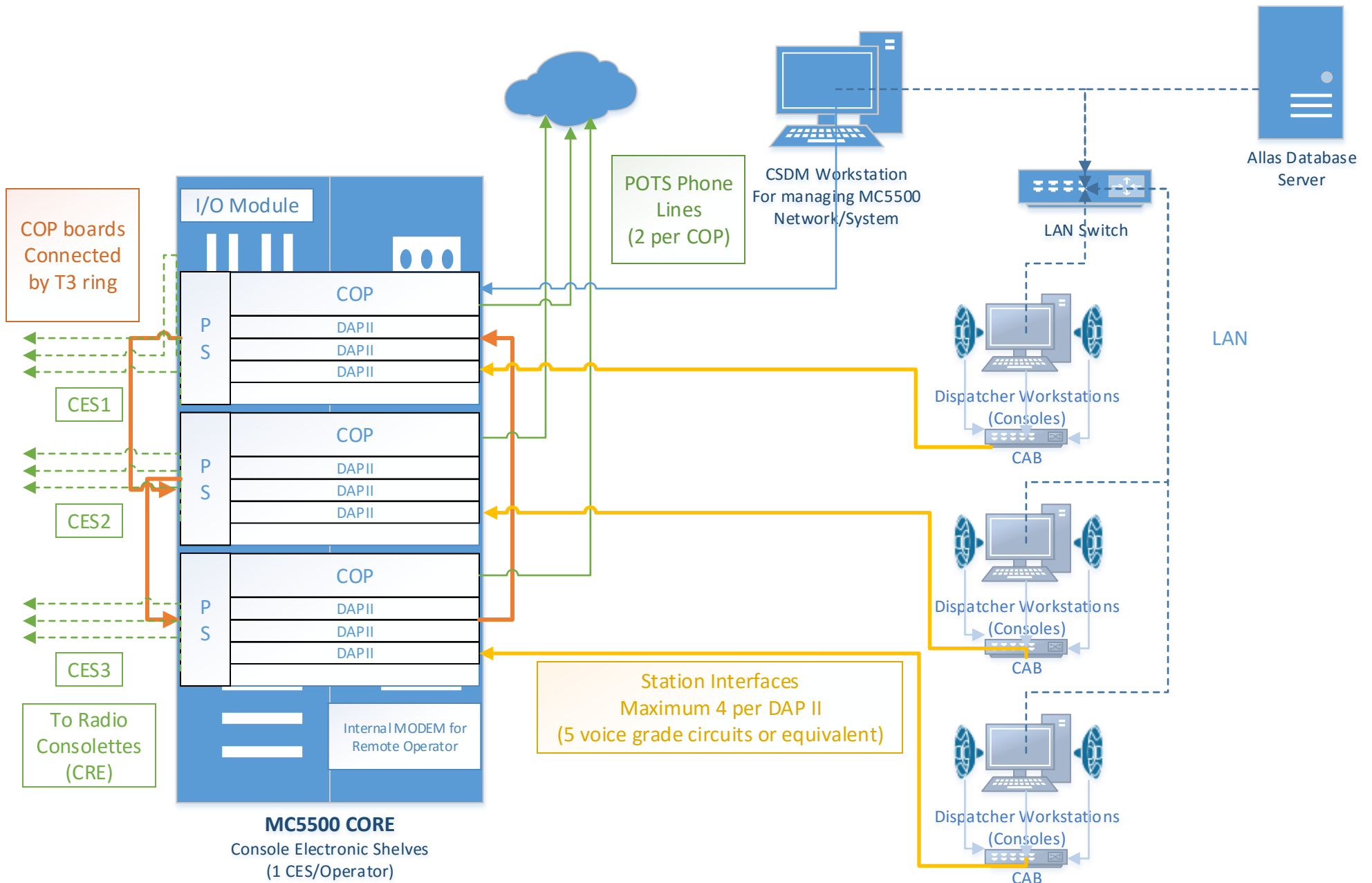
DESCRIPTION	QTY	AMOUNT
11Ghz Licsense PTP Radios	4	\$ 23,520.00
2' UHP Parabolic Dishes	4	\$ 1,760.00
Grounding + Surge Protection	N/A	\$ 1,863.50
Cable - Fiber and Power	N/A	\$ 4,668.00
Power Supplies + SFPs	N/A	\$ 2,328.00
Keys - Cap 1.2Gbps and XPIC	4	\$ 24,272.00
OMT Kits	4	\$ 3,568.00
PCN. And FCC Filling	1	\$ 4,250.00
Mounts - Tower and Non Pen	2	\$ 3,326.00
Site Walk	1	\$ 1,500.00
Net 30 Terms	SUBTOTAL	\$ 71,055.50
All extra items needed for site walk will be paid for by customer or added to Invoice.		
Make all checks payable to DoubleRadius Inc. If you have any questions concerning this invoice, contact Name, Phone Number, Email	SALES TAX	\$ -
	OTHER	-
THANK YOU FOR YOUR BUSINESS!	TOTAL	\$ 71,055.50



2
1 X821 3
4



911
COMM
243



MCC 5500

CONSOLE UPGRADE

**MOTOROLA**

The design, technical, and cost information furnished with this proposal is proprietary information of Motorola Solutions, Inc. (Motorola). Such information is submitted with the restriction that it is to be used only for the evaluation of the proposal, and is not to be disclosed publicly or in any manner to anyone other than those required to evaluate the proposal, without the express written permission of Motorola Solutions, Inc.

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1303 E. Algonquin Rd.
Schaumburg, IL 60196
USA

Tel. + 1 847 576 5000
Fax + 1 847 538 6020

November 20, 2014

Ms. Justine Buxton
RANDOLPH COUNTY
152 North Fayetteville Street
Asheboro, North Carolina 27203

Subject: Proposal for a MCC 5500 CONSOLE UPGRADE

Dear Ms. Buxton,

Motorola Solutions, Inc. ("Motorola") is pleased to have the opportunity to provide the RANDOLPH COUNTY ("RANDOLPH COUNTY") with quality communications equipment and services. The Motorola project team has taken great care to propose a solution that will meet your needs and provide unsurpassed value.

To best meet the functional and operational specifications of this solicitation, Motorola's solution includes a combination of hardware, software, and services. Specifically, this solution is for the MCC 5500 and provides:

- 9 POSITION MCC5500 CONSOLE

This proposal consists of this cover letter and the Communications System Agreement (CSA), together with its Exhibits. This proposal shall remain valid for a period of 90 days from the date of this cover letter. RANDOLPH COUNTY may accept the proposal by delivering to Motorola the CSA signed by Donavan Davis. Alternatively, Motorola would be pleased to address any concerns RANDOLPH COUNTY may have regarding the proposal. Any questions can be directed to your Motorola Account Executive, Scott Hurt, Senior Account Manager at 336 312 9165.

We thank you for the opportunity to furnish RANDOLPH COUNTY with "best in class" solutions and we hope to strengthen our relationship by implementing this project. Our goal is to provide you with the best products and services available in the communications industry.

Sincerely,

Motorola Solutions, Inc.

Robert Marshall
MSSI Vice President and Director, Sales
North America Government and Commercial Markets

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STATEMENT OF WORK

Motorola is proposing to RANDOLPH COUNTY the installation and configuration of the following equipment at the specified locations.

Site Name	Major Equipment
RANDOLPH COUNTY	Quantity 9 MCC 5500 Dispatch console operator positions

The document delineates the general responsibilities between Motorola and **RANDOLPH COUNTY** as agreed to by contract.

1.1 MOTOROLA RESPONSIBILITIES

Motorola's general responsibilities include the following:

- Perform the installation of the Motorola supplied equipment described above.
- Schedule the implementation in agreement with RANDOLPH COUNTY .
- Coordinate the activities of all Motorola subcontractors under this contract.
- Administer safe work procedures for installation.
- Provide RANDOLPH COUNTY with the appropriate system interconnect specifications.

1.2 RANDOLPH COUNTY RESPONSIBILITIES

RANDOLPH COUNTY will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola.

RANDOLPH COUNTY general responsibilities include the following:

- Provide all buildings, equipment shelters, and towers required for system installation
- Insure communications sites meet space, grounding, power, and connectivity requirements for the installation of all equipment.
- Obtain all licensing, site access, or permitting required for project implementation.
- Obtain the frequencies necessary to support the system design.
- Provide approved FCC licensing as required.
- Make any necessary site improvements to meet R56 standards.
- Provide a dedicated delivery point, such as a warehouse, for receipt, inventory and storage of equipment prior to delivery to the site(s).
- Coordinate the activities of all RANDOLPH COUNTY vendors or other contractors.
- Remove, relocate or dispose of obsolete communications equipment as required.

Motorola has made several assumptions in preparing this proposal, which are noted below. In order to provide a firm quote, Motorola will need to verify all assumptions or seek alternate solutions in the case of invalid assumptions.



- All existing sites or equipment locations will have sufficient space available for the system described as required/specified by R56.
- All existing sites or equipment locations will have adequate electrical power in the proper phase and voltage and site grounding to support the requirements of the system described.
- All existing towers will have adequate space and size to support the antenna network requirements of the system described
- Any site/location upgrades or modifications are the responsibility of the customer.
- Any tower stress analysis or tower upgrade requirements are the responsibility of the customer.
- Approved local, State or Federal permits as may be required for the installation and operation of the proposed equipment are the responsibility of the customer.
- Any required system interconnections not specifically outlined here will be provided by the Customer. These may include dedicated phone circuits, microwave links or other types of connectivity.
- No coverage guarantee is included in this proposal.
- Motorola is not responsible for interference caused or received by the Motorola provided equipment except for interference that is directly caused by the Motorola provided transmitter(s) to the Motorola provided receiver(s). Should the Customer's system experience interference, Motorola can be contracted to investigate the source and recommend solutions to mitigate the issue.
- No box level or performance spec testing will be conducted.

SYSTEM DESCRIPTION

SECTION 3 SYSTEM DESCRIPTION

Motorola is proposing a solution for the Randolph County, North Carolina (Randolph Co.]”) that consists of MCC 5500 dispatch consoles. A description of the console features and benefits, hardware components, software components, system architecture, expansion capabilities, and reliability are provided below.

3.1 PROJECT OVERVIEW

This proposal offers Randolph Co. with a Motorola MCC5500 System. The proposed system is a solution comprised 9 Position MCC 5500 Replacement Console

Motorola has taken great care to propose an offering that will provide Randolph Co. with a radio solution that meets their needs.

3.2 MCC5500 DISPATCH CONSOLE

Motorola’s MCC 5500 Dispatch Console is a full-featured conventional radio dispatch console designed to handle dispatch requirements for small to medium-sized communication centers. It is a PC-based console that seamlessly integrates radio, paging and telephony allowing dispatch operators to manage and communicate more effectively with field personnel over numerous channels in a wide area system.

The MCC 5500 is a digital, modular radio dispatch console with an easy-to-use graphical user interface (GUI) running under Windows XP or Vista. Each console system is designed to interface to up to 128 resources (radio channels and telephone lines) and support up to 36 dispatch operator positions. The maximum number of telephone lines supported is 72 (2 per operator position).

The MCC 5500 Dispatch Console allows users to:

- Control conventional, digital, mobile and iDEN radio channels
- Receive and make calls on regular telephone lines
- Use the Call Director to route telephone calls to a headset
- Send pages, either through an internal paging encoder or optional external encoder
- Operate a voter/comparator system by receiving comparator audio and by providing status and control to each receiver
- Decode and dispatch Push-to-Talk (PTT) identification(s) with STAT-ALERT™, ASTRO™, GE-STAR™, DTMF and iDEN signaling systems.

The MCC 5500 Dispatch Console supports the following Conventional radio systems:

- Analog Conventional: Stat-Alert (MDC-1200), Securenet™ (coded/clear only), GE-STAR

- Conventional ASTRO® (Project 25 compliant)

In addition, the MCC 5500 Dispatch Console supports a variety of trunked radio systems as a wireless console using mobile radios as control stations. In most cases, MCC 5500 dispatch operators can access the full set of features supported on the mobile radio unit but with the mobile radio located where needed for proper RF coverage.

The following is a list of wireless console interfaces that MCC 5500 currently supports:

- SMARTNET
- SmartZone
- SmartZone OmniLink
- ASTRO 25 Trunking (Project 25 compliant)
- Dimetra
- PassPort/LTR® Trunking
- iDEN

Functionality as a wireless console is dependant upon the method of interface and radio. Main choices of a wireless console interface are:

- TRC – provides limited functionality within the system
- Serial Link (ASTRO radios only, W7 model) – provides PTT ID, Emergency Call
- SB9600 – provides full control of the radio
- iDEN

3.3 TECHNICAL OVERVIEW

3.3.1 System Architecture

The Motorola MCC 5500 Dispatch Console system is a digital, modular radio dispatch console with an easy-to-use graphical user interface running under Windows XP or Vista. Each console system is designed to interface with up to 128 radio channels and support up to 36 Dispatcher positions. The maximum number of telephone lines supported is 72 (2 per shelf).

An MCC 5500 Dispatch Console system uses distributed ring architecture for the central switch to form an intelligent self-contained, fault tolerant communications system. Each console has independent processing capabilities and interfaces directly to selected system resources. The Console Electronics Shelves (CES) for all console positions are linked together to allow sharing of resources. The total number of shared resources cannot exceed 164. A shared resource is any resource that is accessed by an operator other than the one connected to the shelf the resource is located in. Operators by default count as a shared resource.

The configuration of the system is such that the removal or the failure of any console, or any component within any console, does not inhibit the operation of any other consoles linked, nor will it affect the access to the system resource terminating directly on the other consoles.

A duplicated T3 data link connects all consoles together in ring architecture. A common channel signaling protocol is used for communications on the T3 link. The consoles are capable of interfacing to the link with no signal conversion required.

The function of the MCC 5500 Dispatch Console is to provide centralized communications to multiple base stations, repeaters and other audio equipment, with the ability to integrate two-way radio communication with other dispatch requirements. These requirements may include handling 911 calls, paging, logging and control of external functions via I/O circuits. The multi-tasking MCC 5500 Dispatch Console seamlessly integrates radio, telephone, paging and other communication resources for convenient dispatch personnel use.

Every MCC 5500 Dispatch Console system ships with Console System Database Manager (CSDM) software, which allows for programming, maintenance and configuration. In addition to this, the CSDM provides the capability to collect statistical data on system activity and generate reports for analysis.

The CSDM position (workstation) is connected to one of the CES shelves designated the Master Shelf, via an RS232 link. There can only be one CSDM connected to an MCC 5500 Dispatch Console. The CSDM position can be operated locally or remotely and is used to configure the MCC 5500 Dispatch Console system. Remote access is available through the CSDM using pcAnywhere™, allowing service and support from any location.

The CES consists of a console processor (COP) module to manage communications and digital audio processor (DAP) modules to interface external analog circuits. The DAP modules facilitate communications between operators, radio channels, telephone lines, voice recorders and any other external device connected to the console. Each console electronic shelf is equipped with an individual power supply interfacing the local 115 or 220 VAC power source at either 50 or 60 Hz. Figure 3-1 shows a high-level system block diagram for an MCC 5500 system, including the optional Alias Database Manager (ADM) server.

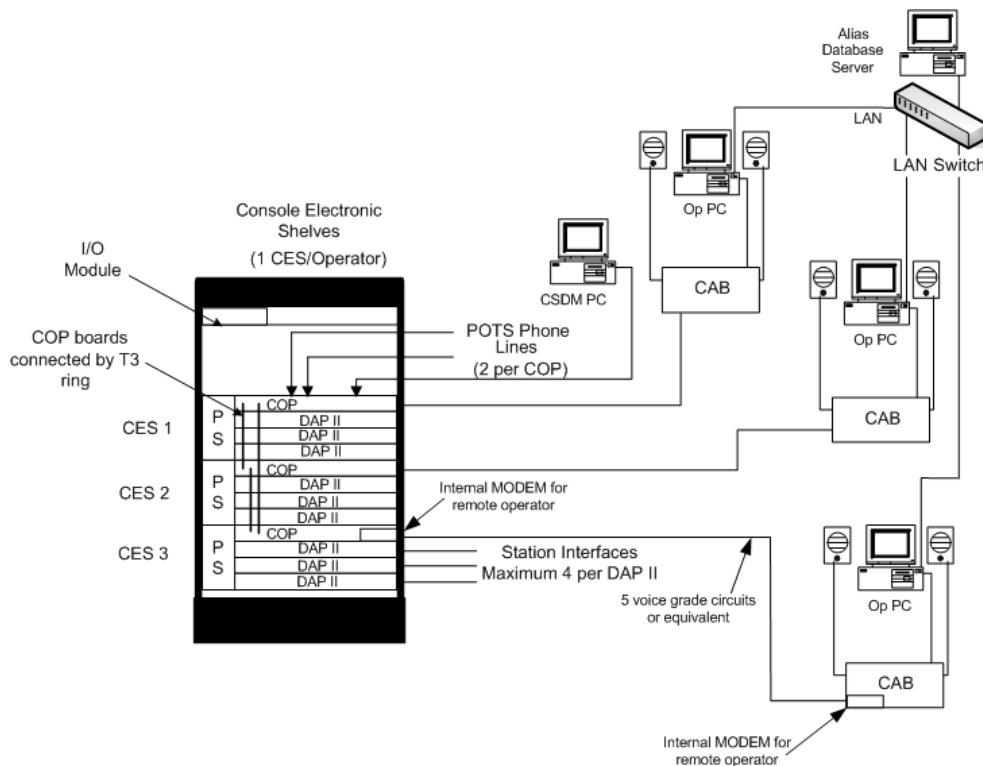


Figure 3-1: MCC 5500 Console System Architecture Diagram

Motorola's MCC 5500 Dispatch Console consists of several major components; MCC 5500 dispatch console operator position, dispatch application software, Console Audio Box (CAB), Console Electronics Shelf (CES), Console System Database Manager (CSDM) and Alias Database Manager (ADM) server (optional).

- **MCC 5500 Dispatch Console Operator Position** – The MCC 5500 dispatch operator position is the interface between the dispatcher and the console system. Each operator position consists of a PC, dispatch application software, Console Audio Box (CAB) and operator accessories. The operation is controlled via mouse and/or touch screen monitor. It provides a means a dispatcher to communicate with field units and telephone callers. It also allows dispatchers to control and monitor multiple channels of radio activity, patch various channels together and send pages. Each operator position is connected to a CAB and Console Electronic Shelf.
- **Dispatch Application Software** – The MCC 5500 dispatch console features an intuitive, easy-to-use Graphical User Interface that runs under the Microsoft XP or Vista operating system utilizing the industry-standard PC platform. The GUI is extremely flexible and can be tailored to both operational and dispatcher needs making dispatching simple and intuitive. The layout and colors of the GUI can be tailored to any given operation and can be configured on a per-operator basis.
- **Console Audio Box (CAB)** – The CAB provides the interface between the MCC 5500 dispatcher PC and CES. It is the connection point for the operator accessories. There is one CAB for each console position.
- **Console Electronics Shelf (CES)** – The CES consists of a console processor (COP) module to manage communications and digital audio processor modules to interface external analog circuits. The modules facilitate communications between console operators, radio channels, voice recorders and any other external devices connected to the console.
- **Console System Database Manager (CSDM)** – The CSDM is a powerful configuration and maintenance tool for the MCC 5500 Dispatch Console and is a requirement for every Randolph

County North Carolina site. The CSDM is used to configure an MCC 5500 Dispatch Console System to access the configuration database, to upgrade software, to monitor the system and to troubleshoot console problems. It also provides extensive online help. The CSDM program is located on a PC (preferably a dedicated PC) that runs Windows XP or Vista operating systems. The CSDM terminal is usually located in the backroom.

- **Alias Database Manager (ADM) Server (optional)** – The ADM is a program for managing centralized server-based access to Caller ID aliases. The ADM provides simple aliasing of radio unit IDs, status members and message numbers. This is an optional component and not included in all architectures. The ADM program is located on a separate PC Server that runs on Windows 2003 operating system.

Note: A network is required to operate ADM using standard networking techniques.

3.3.2 MCC5500 System Capacities

Each MCC 5500 Dispatch Console position is designed to interface up to 128 channels, with each channel using 1 PCM timeslot on the T3 network. Additionally, up to 72 telephone lines can be configured for a total of 168 shared resources. Shared resources are defined as radio channels, telephone lines, mic audio (operator positions) and enhanced call director and can be combined in any way that does not exceed 168.

The MCC 5500 dispatch console system supports 168 audio slot / shared resources. The 164 is a result of adding 26 positions and 128 channels; the maximum capacity of both categories and leave us with 4 slots for telephone or Enhanced Call.

A maximum of 36 operator positions can be connected together in a system with each console connected through 1 PCM timeslot on the T3 network. Each operator position can support two CO lines for a maximum of 72 CO lines. Each CO line uses one PCM timeslot on the T3 network when they are configured as sharable. One Call Director can be assigned to each operator position for a maximum of 36 Call Directors in the system. Each Call Director uses one PCM timeslot on the T3 network when configured as enhanced; that is when the Call Director is connected to a telephone line or radio audio channel. All of these audio resources share the 168 available audio timeslots. For example, if a database is made with a maximum of 128 shareable radio channels and 25 operator positions, it is possible to configure up to 15 sharable CO lines or Enhanced Call Directors.

The MCC 5500 system capacities are summarized in Table 3-1.

Table 3-1: System Capacity Limitations

Type	Capacity
Operator Positions	Up to 36 operator position per system
Channel Capacity	Up to 128 radio channels (sharable)
Telephone Lines	Up to 2 CO lines per dispatch console position Up to 72 CO lines per system
Audio Timeslots	Up to 168 audio slots/shared resources
Multi-Select Groups	Up to 10 Multi-Select groups per dispatch console (with up to 16 radio channel resources per MSel)

Type	Capacity
Patch Groups	Up to 10 Patch groups per dispatch console (with up to 16 radio channel resources per Patch)
Paging Buttons	Up to 512 Paging buttons (with up to 50 single pages in a group)
General I/O Functions	Up to 512 general I/O functions per dispatch console position Up to 2048 general I/O functions per system
Speed Dial Buttons	Up to 10,000 Speed Dial buttons per system (unlimited speed dial entries)
RF Cross-Mutes	Up to 10,000 (Note: acoustic – every operator can be cross-muted with all other operators)
RF Cross-Busies	Up to 10,000
User Log-On IDs	Up to 1,200 user log-on IDs

Shared Resources are defined as:

- Radio channels (shared)
- Telephone lines (shared)
- Mic Audio (i.e. Dispatch position)
- Enhanced Call Director

Calculation of Resource:

- Telephone Line, Mic audio, T1R1, Enhanced Call Director = 1
- T22R = 2
- T44R = 4

3.3.3 Communication within the MCC5500 System

T3-based data links are used to connect the CES shelves together, these links carry both audio and data. The T3 loop provides built-in redundancy; it is possible to break a link between two shelves without causing a failure. This T3 link provides a total of 164 audio slots that can be used for communications.

3.3.4 Communications with Radio Channels

The CES consists of a console processor (COP) module to manage communications and digital audio processor (DAP) modules to interface external analog circuits. The modules facilitate communications between console operators, radio channels, telephone lines, voice recorders and any other external device connected to the console. The CES interfaces directly with the radio channels via the DAP ports; each DAP has four ports for channel interfaces. Internally, digital audio switching routes the audio through the system. An MCC 5500 Dispatch Console dispatcher is able to communicate with any conventional base station, regardless of which shelf in the system the station is connected to. If required, radio channels can be defined as private and only the Dispatcher connected to the shelf in which the interface is located will have access to the channel.

3.3.4.1 Signaling Interfaces

The Motorola MCC 5500 Dispatch Console supports both analog and ASTRO (digital) station interfaces with MDC (Stat-Alert) signaling capability on both. No additional hardware is required for conventional ASTRO 25 and MDC signaling. For channels operating both MDC and conventional ASTRO 25 signaling only one Radio Channel Control is required. The channel ports can be configured in a variety of ways, depending upon the requirement. Each channel port includes a balanced 600 Ohms output for an analog-logging recorder for transmit and receive audio. Outbound keying tones are not sent to the recorder port.

Keying capabilities are:

- Tone Remote Control (TRC)
- DC Control
- Relay Keying
- Data Keying (ASTRO channels only)
- SB9600 Interface
- iDEN Interface

Selection of the keying preference is on a per channel basis.

3.3.5 Supported Configurations

Motorola's MCC 5500 Dispatch Console supports the following types of configurations:

- Analog Radio Channels (Base Stations and Repeaters)
- Control Station Equipment with Tone Remote Adapter
- Digital Interface Unit
- GE-STAR Decoder
- Mobile Radios
- Telephone Lines
- Relays and Opto-couplers
- Modem Connections for Leased Lines
- Wireless iDEN (RALP) interface

3.3.6 Analog Radio Channels (Base Stations and Repeaters)

The MCC 5500 Dispatch Console can connect up to 12 analog radio channels to the CES (Figure 3-2).

Analog channels have balanced 600 Ohm interfaced can be configured for 2 or 4-wire.

- Each DAP II has four Tx/Rx ports and 4 Rx ports
- Each Tx/Rx port can be a TnRn channel
- T22R channels use one TxRx port and one Rx port
- A T44R will use one TxRx port and three Rx ports
- Each DAP II can support four TnRns or four T22Rs or two T44R
- A DAP II can also support a combination like one T44R, one T22R and two TnRn channels

- Analog channels are connected via J4 (TxRx ports) and J6 (Rx and monitor speaker ports)
- If a GE STAR decoder is connected to the channel the output of the decoder connects to J15 (data)

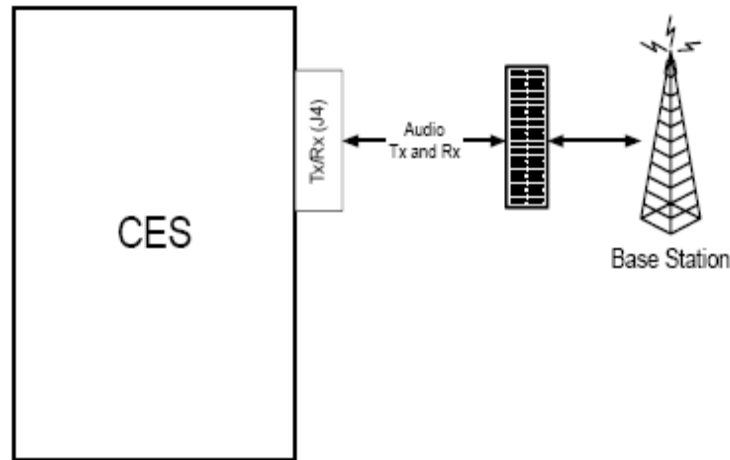


Figure 3-2: Analog Radio Channels

3.3.7 Control Station Equipment with Tone Remote Adapter

The MCC 5500 Dispatch Console can connect up to 12 control station or desktop mobiles through a tone remote adapter to CES connector J4 (Figure 3-3).

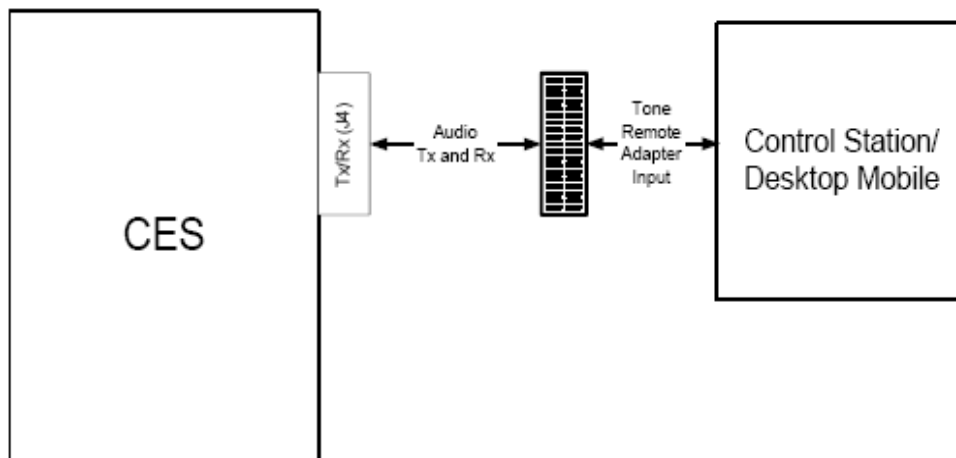


Figure 3-3: Control Station Equipment with Tone Remote Adapter

3.3.8 Digital Interface Unit

The MCC 5500 Dispatch Console can connect up to 12 Digital Interface Units to CES connector J15 (data link). Each DIU corresponds to a radio channel connected to CES connector J4 (audio). ASTRO channels have two interfaces; one four-wire balanced 600 Ohm for audio (J4) and one RS232 for the digital link to the DIU J15.

3.3.9 GE-STAR Decoder

The MCC 5500 Dispatch Console can connect up to 12 GE-STAR decoders to CES connector J15. Each GE-STAR decoder connected corresponds to a radio channel connected to CES Connector J4.

3.3.10 Mobiles

The MCC 5500 Dispatch Console can connect up to 12 mobile radios (with or without digital junction boxes) to CES connectors JM12. Each mobile radio connected corresponds to a radio channel connected to the CES (Figure 3-4).

A digital junction box (L3239 for CDM1550 LS+; L3208 for all other supported mobile radios) is required to share the use of a mobile radio channel with another console system or deskset. Parallel units gain access to the channel by connecting to the digital junction box.

Note: The digital junction box needed to support the MTM700 radio requires software version of the digital junction box to be 3211934-21 or later.

The MCC 5500 Dispatch Console supports communication through a digital junction box that is connected locally or using a leased line modem only. Dial-up modem connection is not supported.

Only one mobile radio channel can be connected to any single digital junction box from any single MCC 5500 Dispatch Console system. If shared access to more than one channel is needed, each channel requires its own digital junction box.

If only one console system (such as an MCC 5500 Dispatch Console system) is connected to a digital junction box, the cables connecting it must not exceed 2,000 feet. If two or more separate console systems (such as an MCC 500 Dispatch Console system and an MC3000 Digital Deskset console) are connected to a digital junction box, the cables connecting to the junction box can be up to 5,000 feet long.

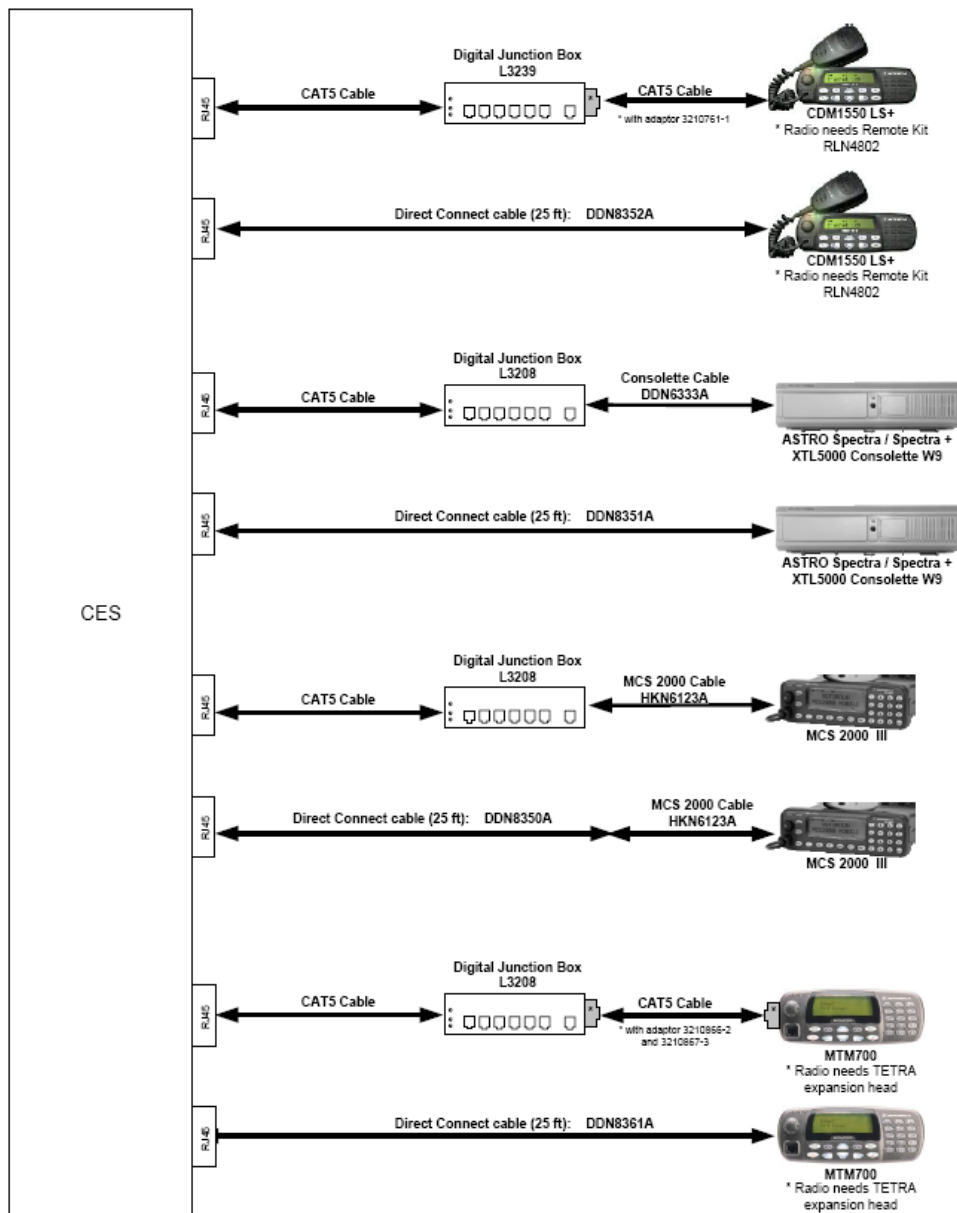


Figure 3-4: Connections

3.3.11 Wireless Trunking Channels

The MCC 5500 Dispatch Console is able to connect to a trunked radio systems using a wireless connection. The wireless connection uses mobile radios as control stations. In most cases, MCC 5500 dispatch operators can access the full set of features supported on the mobile radio unit, but with the mobile radio located where needed for proper RF coverage. Functionality as a wireless console is dependent upon the method of interface and radio.

The main choices of a wireless console interface are:

- TRC – provides limited functionality within the system

- Serial Link (ASTRO radios only, W7 model) – provides PTT ID, Emergency Call
- SB9600 – provides full control of the radio

The following is a list of wireless console interfaces that MCC 5500 currently supports:

- SMARTNET
- SmartZone
- SmartZone OmniLink
- ASTRO 25 Trunking (Project 25 compliant)
- PassPort/LTR Trunking
- Dimetra

3.3.12 Telephone Lines

The MCC 5500 Dispatch Console can connect up to two telephone lines to CES connector J14 (Figure 3-5).

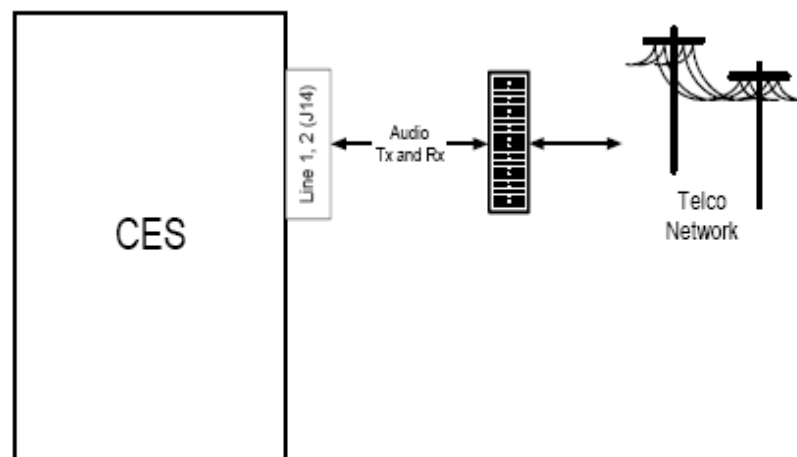


Figure 3-5: Telephone Lines

3.3.13 Relays and Opto-Couplers

The MCC 5500 can connect up to six relays and 12 opto-coupler inputs from each of up to eight I/O modules (an I/O shelf holds up to four I/O modules) on CES connectors J1 and J2 (Figure 3-6).

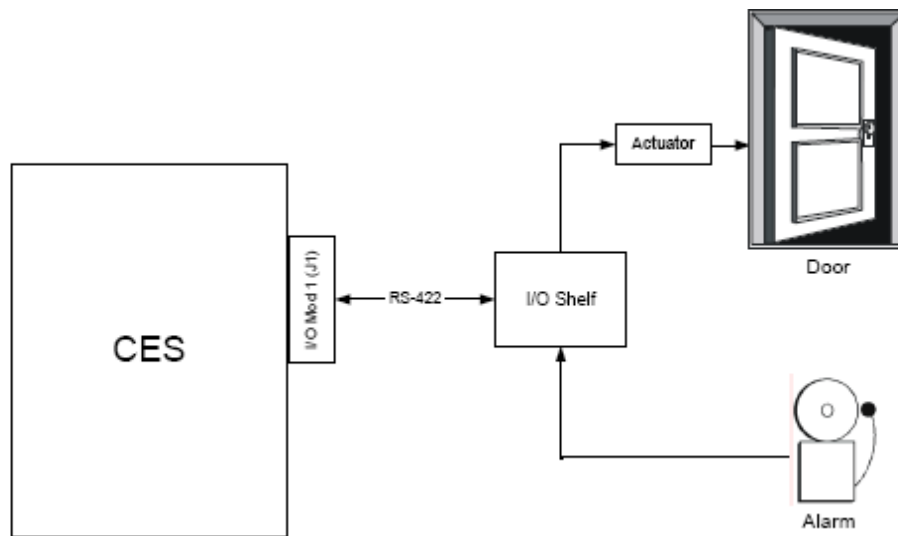


Figure 3-6: Relays and Opto-Couplers

3.3.14 Remote Operator Positions

For remote operation, the CAB can be connected to the CES over a leased line using the Remote Operator Kit. Leased lines must be voice grade four-wire lines with no more than 10dB signal loss. The modems in the Remote Operator Kit are configured for – 10dBm transmit level.

Remote operator positions are supported and require five voice grade circuits or equivalent to provide the following links:

- Microphone Audio
- Select Radio Audio
- Unselect Audio
- Data (2 circuits)

Monitor speakers and telephone access require additional circuits (2 CO Line Module and Enhanced Call Director).

The data link format is RS232. If analog circuits are being used for the remote link then internal leased line modems can be added to the COP and CAB. If digital circuits are being used then an appropriate multiplexer interface can be used.

3.4 COMMUNICATIONS WITH TELEPHONE LINES

The MCC 5500 Dispatch Console supports the following two forms of telephone interfaces:

- Two CO Line Module
- Call Director

3.4.1 Two-CO Line Module

The Two CO Line module (Figure 3-7) adds the capability of interfacing to two telephone lines.



Figure 3-7: Two CO Line Module

Each MCC 5500 Console can support two CO lines each for a maximum of 72 CO lines. Each of the CO lines uses one PCM timeslot on the T3 network when they are configured as sharable.

The CES interfaces directly with analog loop start telephone lines via the two CO modules located on the COP, each module supports two lines. Internally digital audio switching routes the audio through the system. An MCC 5500 Dispatch Console dispatcher is able to communicate with any CO line, regardless of which shelf in the system the module is located. If required, CO lines can be defined as private and only the Dispatcher taking or placing the call will have access to the line. The two CO line module is an option to the CES.

Features available through this interface are:

- Caller ID*
- Flash Hook
- Hold
- DTMF dialing
- Assisted transfer between dispatchers

If Randolph Co. has Basic Caller ID service through the telephone company, one line of text (number only) will be displayed. If Randolph Co. has Enhanced Caller ID service, the first 16 characters of the subscriber name are displayed.

3.4.2 Call Director

Each dispatch position has a Call Director port that can be used to interface to external telephone equipment. This port consists of a four-wire, 600 Ohm audio or carbon headset interface connection with off-hook sense and jack sense. This port is designed to be connected to an external telephone switch and is located on the CAB.

3.5 TIME SYNCHRONIZATION

The MCC 5500 Dispatch Console offers two options for setting a source for date and time updates.

- The CSDM PC using a local area network (LAN)
- An external clock (WWVB or GPS receiver)

The purpose of the selected clock source is to ensure that the time between all entries in the MCC 5500 Dispatch Console is synchronized to the same time.

The CSDM is straightforward: the CSDM computer provides the reference for time. The external source can be a NetClock 2 (format 1) device that is connected to any of the CES shelves, with the connection being defined during configuration.

If the time synchronization is to be taken from the LAN, the CSDM is defined as the synchronization source (CSDM must therefore be connected to the LAN).

3.6 SUMMARY

Motorola is providing a conventional system for Randolph County North Carolina. Motorola has designed this system to enhance voice communications for Randolph Co. providing users with effective and reliable communication.

SECTION 4

ACCEPTANCE TEST PLAN

A detailed Acceptance Test Plan will be developed upon purchase.

SERVICE/WARRANTY

Motorola's standard warranty covers on-site response during normal business hours and provides for the repair or replacement of defective hardware components.

In addition, Motorola provides a customized support package to meet your needs. We have included the following additional services in your support plan.

Motorola has the most comprehensive service organization in the Land Mobile Industry. Since 1947, we have been building a unique service team, national in scope, but local in its ability to respond to our Customer's diverse needs. As product and system complexity has evolved over the years, the Motorola Global Solutions and Service Division has responded by developing new service products and programs to match the evolution. This ensures that we have the ability to provide service products to effectively maintain your system.

MOTOROLA STANDARD WARRANTY

Motorola's standard warranty covers on-site response during normal business hours and provides for the repair or replacement of defective hardware components. In addition, Motorola can provide a customized support package to meet your needs

In addition, Motorola provides a customized support package to meet your needs. We have included the following additional services in your support plan for the first year. After the first year, these services may be purchased under a separate agreement.

5.1 ONSITE INFRASTRUCTURE RESPONSE/ DISPATCH SERVICE

Motorola's On-Site Response service gives you that advantage by making available our network of expert support resources located all across North America to *provide on-site support when you need it*. These Motorola certified field technicians arrive at your door equipped and ready to do what it takes to get your system running at optimum capacity.

Using Motorola-approved test equipment, service procedures and backed by Motorola's centralized technical resources, technicians from your local authorized service center are dispatched to your site to perform diagnostics, remove components for repair, and reinstall new or reconditioned components. When it is a response to a call for help, Motorola On-Site Response service *guarantees technician dispatch, site arrival, and problem resolution—all within your contracted response times*.

Motorola field technicians average 35-60 hours of technical training per year and 15-25 years of solution experience that aid in the quick and timely resolution of your service issues. Motorola on-site technicians are also backed up by technical consultants and field engineering support across the country when the situation calls for a more specialized expertise. We recognize that your



communication system is critical to your operation and our support strategy of local and centralized support is our promise to you that we will do whatever it takes to keep it working at peak efficiency.

Motorola's On-Site Response service is a vital component of an intelligent communication support plan that keeps your business running, your costs down, and helps you stay focused on your goals.

Our **Dispatch Service** is 24 hours a day, 7 days a week. Dispatch service provides robust escalation process whereby predefined response times are monitored and escalated throughout Motorola Management to prevent delayed or dropped response times. Dispatch service combined with MOL allows the customer to be actively involved with the service process.

5.2 TECHNICAL SUPPORT SERVICE

Motorola Technical Support Service assures you maximum preparedness with on-demand technical support, commitment to restoration, and whatever it takes to enable immediate communication via your wireless network! The skilled professionals and advanced systems at the Motorola System Support Center are there to keep your network running at peak performance 24 hours a day, 7 days a week.

Technical Support provides:

- Expert technologists trained in troubleshooting to analyze, isolate and correct problems to get your system issue(s) resolved quickly.
- Best-in-class Remote Diagnosis capabilities: advanced diagnostics and fully equipped test labs, if applicable, based on system type
- Automated test systems to quickly diagnose boards
- Shared knowledge database constantly updated for technologists to utilize to reduce cycle time
- Immediate access to Network Designers and Engineers
- Rigorous and defined case and escalation management process and procedures
- Motorola technologists participate in ongoing training programs
- Customer case performance reports available upon request

5.3 INFRASTRUCTURE REPAIR AND/OR INFRASTRUCTURE REPAIR WITH ADVANCED REPLACEMENT

Motorola Infrastructure Repair and/or Infrastructure Repair with Advanced Replacement Service assures you maximum preparedness through the most effective repair processes so that potential service disruptions are minimized or alleviated. The skilled professionals and advanced systems at the Motorola Infrastructure Depot are here to keep your network running at peak performance 24 hours a day, 7 days a week. Infrastructure may be repaired down to the Component level at the Motorola Infrastructure Depot Operations (IDO). At Motorola's discretion, select third party Infrastructure may be sent to the original equipment manufacturer or third party vendor for repair. If Infrastructure is no longer supported by the original equipment manufacturer or third party vendor, Motorola may replace the equipment with similar Infrastructure.

Infrastructure Repair provides:

- Expert technicians utilizing state-of-the-art automated test equipment trained in troubleshooting to analyze, isolate and correct problems to get your equipment repaired quickly.
- Rigorous and defined case and escalation management process and procedure

Infrastructure Repair with Advanced Replacement Service adds:

- 24 hour advanced replacement exchange for the malfunctioning equipment
- Rental/Loaner equipment in cases where the customer requires the exact serialized repaired equipment returned.

5.4 NETWORK PREVENTATIVE MAINTENANCE

Motorola's Network Preventative Maintenance is a program of regularly scheduled check-ups designed to assure network readiness and overall reliability. This service will be performed annually in conjunction with a prearranged schedule. This service will be performed during normal working hours with the intent to minimize any disruption of service to users. If the service must be performed after hours, a quote will be provided. System documentation will be updated based on this information. The list of documented parameters will be determined by agreement with the customer. All equipment provided as a part of the system will be included.

As wireless networks become increasingly complex, and are enabled to perform more sophisticated tasks, the scope of possible issues grows exponentially. With Network Preventative Maintenance, Motorola offers a proactive, anticipatory service that ensures all network components are operating consistent to manufacturers' specifications – *the first step in minimizing premature repairs.*

Certified field technicians, located throughout North America, are prepared to inspect networks on a routine and prescribed basis. This service is likely the most cost-effective form of network maintenance – the technological equivalent of routine physical examinations.

Using Motorola's best-in-class test equipment, technicians examine hands-on and, if operational testing dictates, align infrastructure to manufacturer's specifications. Equally important, on-site field technicians are supported by Motorola's centralized technical resources and engineering expertise.

SECTION 6

EQUIPMENT LIST

This section lists the equipment necessary for the proposed solution.

QTY	NOMENCLATURE	DESCRIPTION
2	TRN7343	SEVEN AND A HALF FOOT RACK
9	L3358	CONSOLE ELECTRONIC SHELF (CES) II
1	TT04213AA	ADD: TWO (2) CO INTERFACE FOR TELEPHONE II
8	L3550	DAP II FOR ANALOG,SB9600,ASTRO INTERFACES,INCL 2 ANALOG LICENSES
13	TT05249AA	ADD: 2 DIGITAL CHANNELS WITH LICENSE R2.5
7	DDN6918	T3 CABLE 2 FEET
2	DDN6920	T3 CABLE 10 FEET
9	L3359AC	MCC 5500 OP CAB II / PS CALIFORNIA COMPLIANT
9	DDN1055	CES/CAB PLENUM CABLE 100 FOOT
18	B1913	MCC SERIES HEADSET JACK
10	IA-642-S	CLIPPER FOOT SWITCH (3 YEAR EXT SVC)(Spare included)
18	B1912	MCC SERIES DESKTOP SPEAKER
9	TT2537	Z420 LOW TIER WORKSTATION WINDOWS 7
9	DDN1895	SOUND BLASTER AUDIGY RX SOUND CARD
9	DDN1245	DUAL IRR SW USB HASP WITH LICENSE (VERSION 45)
9	TT2482	IA FULL HARDENED CD (USE WITH MCC 5500 WINDOW 7 & SERVER 2008 R2 OS)
1	TT2537	Z420 LOW TIER WORKSTATION WINDOWS 7
1	DDN6916	CSDM PROGRAM
1	DDN6924	CSDM COMPUTER CABLE (DB09) 25 FEET
1	TT2482	IA FULL HARDENED CD (USE WITH MCC 5500 WINDOW 7 & SERVER 2008 R2 OS)
1	TT2739	ML310E GEN8V2 SERVER WINDOWS SERVER 2008 R2 (SP1 64-BIT)
1	L3235	ADDITIONAL 5 CLIENT ACCESS LICENSES / WINDOWS/ 0 SERVER (NO MEDIA)
1	TT2482	IA FULL HARDENED CD (USE WITH MCC 5500 WINDOW 7 & SERVER 2008 R2 OS)
1	DDN8349AC	MCC5500 SPARES PACKAGE / CAB II PS CALIFORNIA COMPLIANT
1	CLN1856	2620-24 ETHERNET SWITCH ?
10	IA-U2414H	22" MONITOR WITH SOUNDBAR AND 3 YEAR Ltd WARRANTY (ADV REPLACEMENT) (spare included)
10	IA-642-S	CLIPPER FOOT SWITCH (3YEAR EXT. SVC) (spare included)
7	6881005Y60	MCC 5500 CONSOLE OPERATOR GUIDE
1	6881005Y65	MCC 5500 CONSOLE INSTALL & SVC MAN
1	6881005Y70	MCC 5500 CON SYS DATABASE MGR MAN



SECTION 7

PRICING

Motorola is pleased to provide the following equipment and services to RANDOLPH COUNTY :

• Equipment Cost	\$260,167.00
• Installation Cost	\$121,585.00
Total System Cost	\$381,752.00

CONTRACTUAL DOCUMENTATION

Communications System Agreement

Motorola Solutions, Inc. ("Motorola") and RANDOLPH COUNTY ("Customer") enter into this "Agreement," pursuant to which Customer will purchase and Motorola will sell the System, as described below. Motorola and Customer may be referred to individually as a "Party" and collectively as the "Parties." For good and valuable consideration, the Parties agree as follows:

Section 1 EXHIBITS

The exhibits listed below are incorporated into and made a part of this Agreement. In interpreting this Agreement and resolving any ambiguities, the main body of this Agreement takes precedence over the exhibits and any inconsistency between Exhibits A through E will be resolved in their listed order.

- Exhibit A Motorola "Software License Agreement"
- Exhibit B "Payment Schedule"
- Exhibit C "Technical and Implementation Documents"
 - C-1 "System Description" dated [REDACTED]
 - C-2 "Equipment List" dated [REDACTED]
 - C-3 "Statement of Work" dated [REDACTED]
 - C-4 "Acceptance Test Plan" or "ATP" dated [REDACTED]
 - C-5 "Performance Schedule" dated [REDACTED]
- Exhibit D Service Statement(s) of Work and "Service Terms and Conditions" (if applicable)
- Exhibit E "System Acceptance Certificate"

Section 2 DEFINITIONS

Capitalized terms used in this Agreement have the following meanings:

- 2.1. "Acceptance Tests" means those tests described in the Acceptance Test Plan.
- 2.2. "Administrative User Credentials" means an account that has total access over the operating system, files, end user accounts and passwords at either the System level or box level. Customer's personnel with access to the Administrative User Credentials may be referred to as the Administrative User.
- 2.3. "Beneficial Use" means when Customer first uses the System or a Subsystem for operational purposes (excluding training or testing).
- 2.4. "Confidential Information" means any information that is disclosed in written, graphic, verbal, or machine-recognizable form, and is marked, designated, or identified at the time of disclosure as being confidential or its equivalent; or if the information is in verbal form, it is identified as confidential at the time of disclosure and is confirmed in writing within thirty (30) days of the disclosure. Confidential Information does not include any information that: is or becomes publicly known through no wrongful act of the receiving Party; is already known to the receiving Party without restriction when it is disclosed; is or becomes, rightfully and without breach of this Agreement, in the receiving Party's possession without any obligation restricting disclosure; is independently developed by the receiving Party without breach of this Agreement; or is explicitly approved for release by written authorization of the disclosing Party.



2.5. “Contract Price” means the price for the System, excluding applicable sales or similar taxes and freight charges.

2.6. “Effective Date” means that date upon which the last Party executes this Agreement.

2.7. “Equipment” means the equipment that Customer purchases from Motorola under this Agreement. Equipment that is part of the System is described in the Equipment List.

2.8. “Force Majeure” means an event, circumstance, or act of a third party that is beyond a Party’s reasonable control (e.g., an act of God, an act of the public enemy, an act of a government entity, strikes or other labor disturbances, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, and riots).

2.9. “Infringement Claim” means a third party claim alleging that the Equipment manufactured by Motorola or the Motorola Software directly infringes a United States patent or copyright.

2.10. “Motorola Software” means Software that Motorola or its affiliated company owns.

2.11. “Non-Motorola Software” means Software that another party owns.

2.12. “Open Source Software” (also called “freeware” or “shareware”) means software with either freely obtainable source code, license for modification, or permission for free distribution.

2.13. “Proprietary Rights” means the patents, patent applications, inventions, copyrights, trade secrets, trademarks, trade names, mask works, know-how, and other intellectual property rights in and to the Equipment and Software, including those created or produced by Motorola under this Agreement and any corrections, bug fixes, enhancements, updates or modifications to or derivative works from the Software whether made by Motorola or another party.

2.14. “Software” means the Motorola Software and Non-Motorola Software, in object code format that is furnished with the System or Equipment.

2.15. “Specifications” means the functionality and performance requirements that are described in the Technical and Implementation Documents.

2.16. “Subsystem” means a major part of the System that performs specific functions or operations. Subsystems are described in the Technical and Implementation Documents.

2.17. “System” means the Equipment, Software, and incidental hardware and materials that are combined together into an integrated system; the System is described in the Technical and Implementation Documents.

2.18. “System Acceptance” means the Acceptance Tests have been successfully completed.

2.19. “Warranty Period” means one (1) year from the date of System Acceptance or Beneficial Use, whichever occurs first.

Section 3 SCOPE OF AGREEMENT AND TERM

3.1. SCOPE OF WORK. Motorola will provide, install and test the System, and perform its other contractual responsibilities, all in accordance with this Agreement. Customer will perform its contractual responsibilities in accordance with this Agreement.

3.2. CHANGE ORDERS. Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect

the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

3.3. TERM. Unless terminated in accordance with other provisions of this Agreement or extended by mutual agreement of the Parties, the term of this Agreement begins on the Effective Date and continues until the date of Final Project Acceptance or expiration of the Warranty Period, whichever occurs last.

3.4. ADDITIONAL EQUIPMENT OR SOFTWARE. For three (3) years after the Effective Date, Customer may order additional Equipment or Software if it is then available. Each order must refer to this Agreement and must specify the pricing and delivery terms. Notwithstanding any additional or contrary terms in the order, the applicable provisions of this Agreement (except for pricing, delivery, passage of title and risk of loss to Equipment, warranty commencement, and payment terms) will govern the purchase and sale of the additional Equipment or Software. Title and risk of loss to additional Equipment will pass at shipment, warranty will commence upon delivery, and payment is due within twenty (20) days after the invoice date. Motorola will send Customer an invoice as the additional Equipment is shipped or Software is licensed. Alternatively, Customer may register with and place orders through Motorola Online ("MOL"), and this Agreement will be the "Underlying Agreement" for those MOL transactions rather than the MOL On-Line Terms and Conditions of Sale. MOL registration and other information may be found at <http://www.motorola.com/businessandgovernment/> and the MOL telephone number is (800) 814-0601.

3.5. MAINTENANCE SERVICE. During the Warranty Period, in addition to warranty services, Motorola will provide maintenance services for the Equipment and support for the Motorola Software pursuant to the Statement of Work set forth in Exhibit D. Those services and support are included in the Contract Price. If Customer wishes to purchase additional maintenance and support services for the Equipment during the Warranty Period, or any maintenance and support services for the Equipment either during the Warranty Period or after the Warranty Period, the description of and pricing for the services will be set forth in a separate document. If Customer wishes to purchase extended support for the Motorola Software after the Warranty Period, it may do so by ordering software subscription services. Unless otherwise agreed by the parties in writing, the terms and conditions applicable to those maintenance, support or software subscription services will be Motorola's standard Service Terms and Conditions, together with the appropriate statements of work.

3.6. MOTOROLA SOFTWARE. Any Motorola Software, including subsequent releases, is licensed to Customer solely in accordance with the Software License Agreement. Customer hereby accepts and agrees to abide by all of the terms and restrictions of the Software License Agreement.

3.7. NON-MOTOROLA SOFTWARE. Any Non-Motorola Software is licensed to Customer in accordance with the standard license, terms, and restrictions of the copyright owner on the Effective Date unless the copyright owner has granted to Motorola the right to sublicense the Non-Motorola Software pursuant to the Software License Agreement, in which case it applies and the copyright owner will have all of Licensor's rights and protections under the Software License Agreement. Motorola makes no representations or warranties of any kind regarding Non-Motorola Software. Non-Motorola Software may include Open Source Software. All Open Source Software is licensed to Customer in accordance with, and Customer agrees to abide by, the provisions of the standard license of the copyright owner and not the Software License Agreement. Upon request by Customer, Motorola will use commercially reasonable efforts to determine whether any Open Source Software will be provided under this Agreement; and if so, identify the Open Source Software and provide to Customer a copy of the applicable standard license (or specify where that license may be found); and provide to Customer a copy of the Open Source Software source code if it is publicly available without charge (although a distribution fee or a charge for related services may be applicable).

3.8. SUBSTITUTIONS. At no additional cost to Customer, Motorola may substitute any Equipment, Software, or services to be provided by Motorola, if the substitute meets or exceeds the Specifications and is of equivalent or better quality to the Customer. Any substitution will be reflected in a change order.

3.9. OPTIONAL EQUIPMENT OR SOFTWARE. This paragraph applies only if a "Priced Options" exhibit is shown in Section 1, or if the parties amend this Agreement to add a Priced Options exhibit. During the term of the option as stated in the Priced Options exhibit (or if no term is stated, then for one (1) year after the Effective Date),

Customer has the right and option to purchase the equipment, software, and related services that are described in the Priced Options exhibit. Customer may exercise this option by giving written notice to Seller which must designate what equipment, software, and related services Customer is selecting (including quantities, if applicable). To the extent they apply, the terms and conditions of this Agreement will govern the transaction; however, the parties acknowledge that certain provisions must be agreed upon, and they agree to negotiate those in good faith promptly after Customer delivers the option exercise notice. Examples of provisions that may need to be negotiated are: specific lists of deliverables, statements of work, acceptance test plans, delivery and implementation schedules, payment terms, maintenance and support provisions, additions to or modifications of the Software License Agreement, hosting terms, and modifications to the acceptance and warranty provisions.

Section 4 PERFORMANCE SCHEDULE

The Parties will perform their respective responsibilities in accordance with the Performance Schedule. By executing this Agreement, Customer authorizes Motorola to proceed with contract performance.

Section 5 CONTRACT PRICE, PAYMENT AND INVOICING

5.1.CONTRACT PRICE. The Contract Price in U.S. dollars is \$_____. If applicable, a pricing summary is included with the Payment Schedule. Motorola has priced the services, Software, and Equipment as an integrated system. A reduction in Software or Equipment quantities, or services, may affect the overall Contract Price, including discounts if applicable.

5.2.INVOICING AND PAYMENT. Motorola will submit invoices to Customer according to the Payment Schedule. Except for a payment that is due on the Effective Date, Customer will make payments to Motorola within twenty (20) days after the date of each invoice. Customer will make payments when due in the form of a wire transfer, check, or cashier's check from a U.S. financial institution. Overdue invoices will bear simple interest at the maximum allowable rate. For reference, the Federal Tax Identification Number for Motorola Solutions, Inc. is 36-1115800.

5.3.FREIGHT, TITLE, AND RISK OF LOSS. Motorola will pre-pay and add all freight charges to the invoices. Title to the Equipment will pass to Customer upon shipment. Title to Software will not pass to Customer at any time. Risk of loss will pass to Customer upon delivery of the Equipment to the Customer. Motorola will pack and ship all Equipment in accordance with good commercial practices.

5.4.INVOICING AND SHIPPING ADDRESSES. Invoices will be sent to the Customer at the following address:

The address which is the ultimate destination where the Equipment will be delivered to Customer is:

The Equipment will be shipped to the Customer at the following address (insert if this information is known):

Customer may change this information by giving written notice to Motorola.

Section 6 SITES AND SITE CONDITIONS

6.1.ACCESS TO SITES. In addition to its responsibilities described elsewhere in this Agreement, Customer will provide a designated project manager; all necessary construction and building permits, zoning variances, licenses, and any other approvals that are necessary to develop or use the sites and mounting locations; and access to the work sites or vehicles identified in the Technical and Implementation Documents as reasonably requested by Motorola so that it may perform its duties in accordance with the Performance Schedule and



Statement of Work. If the Statement of Work so indicates, Motorola may assist Customer in the local building permit process.

6.2. SITE CONDITIONS. Customer will ensure that all work sites it provides will be safe, secure, and in compliance with all applicable industry and OSHA standards. To the extent applicable and unless the Statement of Work states to the contrary, Customer will ensure that these work sites have adequate: physical space; air conditioning and other environmental conditions; adequate and appropriate electrical power outlets, distribution, equipment and connections; and adequate telephone or other communication lines (including modem access and adequate interfacing networking capabilities), all for the installation, use and maintenance of the System. Before installing the Equipment or Software at a work site, Motorola may inspect the work site and advise Customer of any apparent deficiencies or non-conformities with the requirements of this Section. This Agreement is predicated upon normal soil conditions as defined by the version of E.I.A. standard RS-222 in effect on the Effective Date.

6.3. SITE ISSUES. If a Party determines that the sites identified in the Technical and Implementation Documents are no longer available or desired, or if subsurface, structural, adverse environmental or latent conditions at any site differ from those indicated in the Technical and Implementation Documents, the Parties will promptly investigate the conditions and will select replacement sites or adjust the installation plans and specifications as necessary. If change in sites or adjustment to the installation plans and specifications causes a change in the cost or time to perform, the Parties will equitably amend the Contract Price, Performance Schedule, or both, by a change order.

Section 7 TRAINING

Any training to be provided by Motorola to Customer will be described in the Statement of Work. Customer will notify Motorola immediately if a date change for a scheduled training program is required. If Motorola incurs additional costs because Customer reschedules a training program less than thirty (30) days before its scheduled start date, Motorola may recover these additional costs.

Section 8 SYSTEM ACCEPTANCE

8.1. COMMENCEMENT OF ACCEPTANCE TESTING. Motorola will provide to Customer at least ten (10) days notice before the Acceptance Tests commence. System testing will occur only in accordance with the Acceptance Test Plan.

8.2. SYSTEM ACCEPTANCE. System Acceptance will occur upon successful completion of the Acceptance Tests. Upon System Acceptance, the Parties will memorialize this event by promptly executing a System Acceptance Certificate. If the Acceptance Test Plan includes separate tests for individual Subsystems or phases of the System, acceptance of the individual Subsystem or phase will occur upon the successful completion of the Acceptance Tests for the Subsystem or phase, and the Parties will promptly execute an acceptance certificate for the Subsystem or phase. If Customer believes the System has failed the completed Acceptance Tests, Customer will provide to Motorola a written notice that includes the specific details of the failure. If Customer does not provide to Motorola a failure notice within thirty (30) days after completion of the Acceptance Tests, System Acceptance will be deemed to have occurred as of the completion of the Acceptance Tests. Minor omissions or variances in the System that do not materially impair the operation of the System as a whole will not postpone System Acceptance or Subsystem acceptance, but will be corrected according to a mutually agreed schedule.

8.3. BENEFICIAL USE. Customer acknowledges that Motorola's ability to perform its implementation and testing responsibilities may be impeded if Customer begins using the System before System Acceptance. Therefore, Customer will not commence Beneficial Use before System Acceptance without Motorola's prior written authorization, which will not be unreasonably withheld. Motorola is not responsible for System performance deficiencies that occur during unauthorized Beneficial Use. Upon commencement of Beneficial Use, Customer assumes responsibility for the use and operation of the System.



8.4 FINAL PROJECT ACCEPTANCE. Final Project Acceptance will occur after System Acceptance when all deliverables and other work have been completed. When Final Project Acceptance occurs, the parties will promptly memorialize this final event by so indicating on the System Acceptance Certificate.

Section 9 REPRESENTATIONS AND WARRANTIES

9.1.SYSTEM FUNCTIONALITY. Motorola represents that the System will perform in accordance with the Specifications in all material respects. Upon System Acceptance or Beneficial Use, whichever occurs first, this System functionality representation is fulfilled. Motorola is not responsible for System performance deficiencies that are caused by ancillary equipment not furnished by Motorola which is attached to or used in connection with the System or for reasons or parties beyond Motorola's control, such as natural causes; the construction of a building that adversely affects the microwave path reliability or radio frequency (RF) coverage; the addition of frequencies at System sites that cause RF interference or intermodulation; or Customer changes to load usage or configuration outside the Specifications.

9.2.EQUIPMENT WARRANTY. During the Warranty Period, Motorola warrants that the Equipment under normal use and service will be free from material defects in materials and workmanship. If System Acceptance is delayed beyond six (6) months after shipment of the Equipment by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Equipment.

9.3.MOTOROLA SOFTWARE WARRANTY. Unless otherwise stated in the Software License Agreement, during the Warranty Period, Motorola warrants the Motorola Software in accordance with the terms of the Software License Agreement and the provisions of this Section 9 that are applicable to the Motorola Software. If System Acceptance is delayed beyond six (6) months after shipment of the Motorola Software by events or causes within Customer's control, this warranty expires eighteen (18) months after the shipment of the Motorola Software. **TO THE EXTENT, IF ANY, THAT THERE IS A SEPARATE LICENSE AGREEMENT PACKAGED WITH, OR PROVIDED ELECTRONICALLY WITH, A PARTICULAR PRODUCT THAT BECOMES EFFECTIVE ON AN ACT OF ACCEPTANCE BY THE END USER, THEN THAT AGREEMENT SUPERCEDES THIS SOFTWARE LICENSE AGREEMENT AS TO THE END USER OF EACH SUCH PRODUCT.**

9.4.EXCLUSIONS TO EQUIPMENT AND MOTOROLA SOFTWARE WARRANTIES. These warranties do not apply to: (i) defects or damage resulting from: use of the Equipment or Motorola Software in other than its normal, customary, and authorized manner; accident, liquids, neglect, or acts of God; testing, maintenance, disassembly, repair, installation, alteration, modification, or adjustment not provided or authorized in writing by Motorola; Customer's failure to comply with all applicable industry and OSHA standards; (ii) breakage of or damage to antennas unless caused directly by defects in material or workmanship; (iii) Equipment that has had the serial number removed or made illegible; (iv) batteries (because they carry their own separate limited warranty) or consumables; (v) freight costs to ship Equipment to the repair depot; (vi) scratches or other cosmetic damage to Equipment surfaces that does not affect the operation of the Equipment; and (vii) normal or customary wear and tear.

9.5.WARRANTY CLAIMS. To assert a warranty claim, Customer must notify Motorola in writing of the claim before the expiration of the Warranty Period. Upon receipt of this notice, Motorola will investigate the warranty claim. If this investigation confirms a valid warranty claim, Motorola will (at its option and at no additional charge to Customer) repair the defective Equipment or Motorola Software, replace it with the same or equivalent product, or refund the price of the defective Equipment or Motorola Software. That action will be the full extent of Motorola's liability for the warranty claim. If this investigation indicates the warranty claim is not valid, then Motorola may invoice Customer for responding to the claim on a time and materials basis using Motorola's then current labor rates. Repaired or replaced product is warranted for the balance of the original applicable warranty period. All replaced products or parts will become the property of Motorola.

9.6.ORIGINAL END USER IS COVERED. These express limited warranties are extended by Motorola to the original user purchasing the System for commercial, industrial, or governmental use only, and are not assignable or transferable.

9.7. DISCLAIMER OF OTHER WARRANTIES. THESE WARRANTIES ARE THE COMPLETE WARRANTIES FOR THE EQUIPMENT AND MOTOROLA SOFTWARE PROVIDED UNDER THIS AGREEMENT AND ARE GIVEN IN LIEU OF ALL OTHER WARRANTIES. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Section 10 DELAYS

10.1. FORCE MAJEURE. Neither Party will be liable for its non-performance or delayed performance if caused by a Force Majeure. A Party that becomes aware of a Force Majeure that will significantly delay performance will notify the other Party promptly (but in no event later than fifteen days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties will execute a change order to extend the Performance Schedule for a time period that is reasonable under the circumstances.

10.2. PERFORMANCE SCHEDULE DELAYS CAUSED BY CUSTOMER. If Customer (including its other contractors) delays the Performance Schedule, it will make the promised payments according to the Payment Schedule as if no delay occurred; and the Parties will execute a change order to extend the Performance Schedule and, if requested, compensate Motorola for all reasonable charges incurred because of the delay. Delay charges may include costs incurred by Motorola or its subcontractors for additional freight, warehousing and handling of Equipment; extension of the warranties; travel; suspending and re-mobilizing the work; additional engineering, project management, and standby time calculated at then current rates; and preparing and implementing an alternative implementation plan.

Section 11 DISPUTES

The Parties will use the following procedure to address any dispute arising under this Agreement (a "Dispute").

11.1. GOVERNING LAW. This Agreement will be governed by and construed in accordance with the laws of the State in which the System is installed.

11.2. NEGOTIATION. Either Party may initiate the Dispute resolution procedures by sending a notice of Dispute ("Notice of Dispute"). The Parties will attempt to resolve the Dispute promptly through good faith negotiations including 1) timely escalation of the Dispute to executives who have authority to settle the Dispute and who are at a higher level of management than the persons with direct responsibility for the matter and 2) direct communication between the executives. If the Dispute has not been resolved within ten (10) days from the Notice of Dispute, the Parties will proceed to mediation.

11.3. MEDIATION. The Parties will choose an independent mediator within thirty (30) days of a notice to mediate from either Party ("Notice of Mediation"). Neither Party may unreasonably withhold consent to the selection of a mediator. If the Parties are unable to agree upon a mediator, either Party may request that American Arbitration Association nominate a mediator. Each Party will bear its own costs of mediation, but the Parties will share the cost of the mediator equally. Each Party will participate in the mediation in good faith and will be represented at the mediation by a business executive with authority to settle the Dispute.

11.4. LITIGATION, VENUE and JURISDICTION. If a Dispute remains unresolved for sixty (60) days after receipt of the Notice of Mediation, either Party may then submit the Dispute to a court of competent jurisdiction in the state in which the System is installed. Each Party irrevocably agrees to submit to the exclusive jurisdiction of the courts in such state over any claim or matter arising under or in connection with this Agreement.

11.5. CONFIDENTIALITY. All communications pursuant to subsections 11.2 and 11.3 will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence and any additional confidentiality protections provided by applicable law. The use of these Dispute resolution procedures will not be construed under the doctrines of laches, waiver or estoppel to affect adversely the rights of either Party.

Section 12 DEFAULT AND TERMINATION

12.1 **DEFAULT BY A PARTY.** If either Party fails to perform a material obligation under this Agreement, the other Party may consider the non-performing Party to be in default (unless a Force Majeure causes the failure) and may assert a default claim by giving the non-performing Party a written and detailed notice of default. Except for a default by Customer for failing to pay any amount when due under this Agreement which must be cured immediately, the defaulting Party will have thirty (30) days after receipt of the notice of default to either cure the default or, if the default is not curable within thirty (30) days, provide a written cure plan. The defaulting Party will begin implementing the cure plan immediately after receipt of notice by the other Party that it approves the plan. If Customer is the defaulting Party, Motorola may stop work on the project until it approves the Customer's cure plan.

12.2. **FAILURE TO CURE.** If a defaulting Party fails to cure the default as provided above in Section 12.1, unless otherwise agreed in writing, the non-defaulting Party may terminate any unfulfilled portion of this Agreement. In the event of termination for default, the defaulting Party will promptly return to the non-defaulting Party any of its Confidential Information. If Customer is the non-defaulting Party, terminates this Agreement as permitted by this Section, and completes the System through a third Party, Customer may as its exclusive remedy recover from Motorola reasonable costs incurred to complete the System to a capability not exceeding that specified in this Agreement less the unpaid portion of the Contract Price. Customer will mitigate damages and provide Motorola with detailed invoices substantiating the charges.

Section 13 INDEMNIFICATION

13.1. **GENERAL INDEMNITY BY MOTOROLA.** Motorola will indemnify and hold Customer harmless from any and all liability, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Customer to the extent it is caused by the negligence of Motorola, its subcontractors, or their employees or agents, while performing their duties under this Agreement, if Customer gives Motorola prompt, written notice of any the claim or suit. Customer will cooperate with Motorola in its defense or settlement of the claim or suit. This section sets forth the full extent of Motorola's general indemnification of Customer from liabilities that are in any way related to Motorola's performance under this Agreement.

13.2. **GENERAL INDEMNITY BY CUSTOMER.** Customer will indemnify and hold Motorola harmless from any and all liability, expense, judgment, suit, cause of action, or demand for personal injury, death, or direct damage to tangible property which may accrue against Motorola to the extent it is caused by the negligence of Customer, its other contractors, or their employees or agents, while performing their duties under this Agreement, if Motorola gives Customer prompt, written notice of any the claim or suit. Motorola will cooperate with Customer in its defense or settlement of the claim or suit. This section sets forth the full extent of Customer's general indemnification of Motorola from liabilities that are in any way related to Customer's performance under this Agreement.

13.3. PATENT AND COPYRIGHT INFRINGEMENT.

13.3.1. Motorola will defend at its expense any suit brought against Customer to the extent it is based on a third-party claim alleging that the Equipment manufactured by Motorola or the Motorola Software ("Motorola Product") directly infringes a United States patent or copyright ("Infringement Claim"). Motorola's duties to defend and indemnify are conditioned upon: Customer promptly notifying Motorola in writing of the Infringement Claim; Motorola having sole control of the defense of the suit and all negotiations for its settlement or compromise; and Customer providing to Motorola cooperation and, if requested by Motorola, reasonable assistance in the defense of the Infringement Claim. In addition to Motorola's obligation to defend, and subject to the same conditions, Motorola will pay all damages finally awarded against Customer by a court of competent jurisdiction for an Infringement Claim or agreed to, in writing, by Motorola in settlement of an Infringement Claim.

13.3.2. If an Infringement Claim occurs, or in Motorola's opinion is likely to occur, Motorola may at its option and expense: (a) procure for Customer the right to continue using the Motorola Product; (b) replace or modify the Motorola Product so that it becomes non-infringing while providing functionally equivalent performance; or (c) accept the return of the Motorola Product and grant Customer a credit for the Motorola Product, less a reasonable

charge for depreciation. The depreciation amount will be calculated based upon generally accepted accounting standards.

13.3.3. Motorola will have no duty to defend or indemnify for any Infringement Claim that is based upon: (a) the combination of the Motorola Product with any software, apparatus or device not furnished by Motorola; (b) the use of ancillary equipment or software not furnished by Motorola and that is attached to or used in connection with the Motorola Product; (c) Motorola Product designed or manufactured in accordance with Customer's designs, specifications, guidelines or instructions, if the alleged infringement would not have occurred without such designs, specifications, guidelines or instructions; (d) a modification of the Motorola Product by a party other than Motorola; (e) use of the Motorola Product in a manner for which the Motorola Product was not designed or that is inconsistent with the terms of this Agreement; or (f) the failure by Customer to install an enhancement release to the Motorola Software that is intended to correct the claimed infringement. In no event will Motorola's liability resulting from its indemnity obligation to Customer extend in any way to royalties payable on a per use basis or the Customer's revenues, or any royalty basis other than a reasonable royalty based upon revenue derived by Motorola from Customer from sales or license of the infringing Motorola Product.

13.3.4. This Section 13 provides Customer's sole and exclusive remedies and Motorola's entire liability in the event of an Infringement Claim. Customer has no right to recover and Motorola has no obligation to provide any other or further remedies, whether under another provision of this Agreement or any other legal theory or principle, in connection with an Infringement Claim. In addition, the rights and remedies provided in this Section 13 are subject to and limited by the restrictions set forth in Section 14.

Section 14 LIMITATION OF LIABILITY

Except for personal injury or death, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, indemnification, or otherwise, will be limited to the direct damages recoverable under law, but not to exceed the price of the Equipment, Software, or services with respect to which losses or damages are claimed. **ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THIS AGREEMENT, THE SALE OR USE OF THE EQUIPMENT OR SOFTWARE, OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THIS AGREEMENT.** This limitation of liability provision survives the expiration or termination of the Agreement and applies notwithstanding any contrary provision. No action for contract breach or otherwise relating to the transactions contemplated by this Agreement may be brought more than one (1) year after the accrual of the cause of action, except for money due upon an open account.

Section 15 CONFIDENTIALITY AND PROPRIETARY RIGHTS

15.1. **CONFIDENTIAL INFORMATION.** During the term of this Agreement, the parties may provide each other with Confidential Information. Each Party will: maintain the confidentiality of the other Party's Confidential Information and not disclose it to any third party, except as authorized by the disclosing Party in writing or as required by a court of competent jurisdiction; restrict disclosure of the Confidential Information to its employees who have a "need to know" and not copy or reproduce the Confidential Information; take necessary and appropriate precautions to guard the confidentiality of the Confidential Information, including informing its employees who handle the Confidential Information that it is confidential and is not to be disclosed to others, but these precautions will be at least the same degree of care that the receiving Party applies to its own confidential information and will not be less than reasonable care; and use the Confidential Information only in furtherance of the performance of this Agreement. Confidential Information is and will at all times remain the property of the disclosing Party, and no grant of any proprietary rights in the Confidential Information is given or intended, including any express or implied license, other than the limited right of the recipient to use the Confidential Information in the manner and to the extent permitted by this Agreement.

15.2. **PRESERVATION OF MOTOROLA'S PROPRIETARY RIGHTS.** Motorola, the third party manufacturer of any Equipment, and the copyright owner of any Non-Motorola Software own and retain all of their respective Proprietary Rights in the Equipment and Software, and nothing in this Agreement is intended to restrict their

Proprietary Rights. All intellectual property developed, originated, or prepared by Motorola in connection with providing to Customer the Equipment, Software, or related services remain vested exclusively in Motorola, and this Agreement does not grant to Customer any shared development rights of intellectual property. Except as explicitly provided in the Software License Agreement, Motorola does not grant to Customer, either directly or by implication, estoppel, or otherwise, any right, title or interest in Motorola's Proprietary Rights. Customer will not modify, disassemble, peel components, decompile, otherwise reverse engineer or attempt to reverse engineer, derive source code or create derivative works from, adapt, translate, merge with other software, reproduce, distribute, sublicense, sell or export the Software, or permit or encourage any third party to do so. The preceding sentence does not apply to Open Source Software which is governed by the standard license of the copyright owner.

Section 16 GENERAL

16.1. TAXES. The Contract Price does not include any excise, sales, lease, use, property, or other taxes, assessments or duties, all of which will be paid by Customer except as exempt by law. If Motorola is required to pay any of these taxes, Motorola will send an invoice to Customer and Customer will pay to Motorola the amount of the taxes (including any interest and penalties) within twenty (20) days after the date of the invoice. Customer will be solely responsible for reporting the Equipment for personal property tax purposes, and Motorola will be solely responsible for reporting taxes on its income or net worth.

16.2. ASSIGNABILITY AND SUBCONTRACTING. Except as provided herein, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Customer. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other Party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement.

16.3 WAIVER. Failure or delay by either Party to exercise a right or power under this Agreement will not be a waiver of the right or power. For a waiver of a right or power to be effective, it must be in a writing signed by the waiving Party. An effective waiver of a right or power will not be construed as either a future or continuing waiver of that same right or power, or the waiver of any other right or power.

16.4. SEVERABILITY. If a court of competent jurisdiction renders any part of this Agreement invalid or unenforceable, that part will be severed and the remainder of this Agreement will continue in full force and effect.

16.5. INDEPENDENT CONTRACTORS. Each Party will perform its duties under this Agreement as an independent contractor. The Parties and their personnel will not be considered to be employees or agents of the other Party. Nothing in this Agreement will be interpreted as granting either Party the right or authority to make commitments of any kind for the other. This Agreement will not constitute, create, or be interpreted as a joint venture, partnership or formal business organization of any kind.

16.6. HEADINGS AND SECTION REFERENCES. The section headings in this Agreement are inserted only for convenience and are not to be construed as part of this Agreement or as a limitation of the scope of the particular section to which the heading refers. This Agreement will be fairly interpreted in accordance with its terms and conditions and not for or against either Party.

16.7. ENTIRE AGREEMENT. This Agreement, including all Exhibits, constitutes the entire agreement of the Parties regarding the subject matter of the Agreement and supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which shall constitute one and the same instrument. A facsimile copy or computer image, such as a PDF or tiff image, or a signature shall be treated as

and shall have the same effect as an original signature. In addition, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. This Agreement may be amended or modified only by a written instrument signed by authorized representatives of both Parties. The preprinted terms and conditions found on any Customer purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each Party signs that document.

16.8. NOTICES. Notices required under this Agreement to be given by one Party to the other must be in writing and either personally delivered or sent to the address shown below by certified mail, return receipt requested and postage prepaid (or by a recognized courier service, such as Federal Express, UPS, or DHL), or by facsimile with correct answerback received, and will be effective upon receipt:

Motorola Solutions, Inc.	Customer
Attn: _____	Attn: _____
_____	_____
fax: _____	fax: _____

16.9. COMPLIANCE WITH APPLICABLE LAWS. Each Party will comply with all applicable federal, state, and local laws, regulations and rules concerning the performance of this Agreement or use of the System. Customer will obtain and comply with all Federal Communications Commission ("FCC") licenses and authorizations required for the installation, operation and use of the System before the scheduled installation of the Equipment. Although Motorola might assist Customer in the preparation of its FCC license applications, neither Motorola nor any of its employees is an agent or representative of Customer in FCC or other matters.

16.10. AUTHORITY TO EXECUTE AGREEMENT. Each Party represents that it has obtained all necessary approvals, consents and authorizations to enter into this Agreement and to perform its duties under this Agreement; the person executing this Agreement on its behalf has the authority to do so; upon execution and delivery of this Agreement by the Parties, it is a valid and binding contract, enforceable in accordance with its terms; and the execution, delivery, and performance of this Agreement does not violate any bylaw, charter, regulation, law or any other governing authority of the Party.

16.11. ADMINISTRATOR LEVEL ACCOUNT ACCESS. Motorola will provide Customer with Administrative User Credentials. Customer agrees to only grant Administrative User Credentials to those personnel with the training or experience to correctly use the access. Customer is responsible for protecting Administrative User Credentials from disclosure and maintaining Credential validity by, among other things, updating passwords when required. Customer may be asked to provide valid Administrative User Credentials when in contact with Motorola System support. Customer understands that changes made as the Administrative User can significantly impact the performance of the System. Customer agrees that it will be solely responsible for any negative impact on the System or its users by any such changes. System issues occurring as a result of changes made by an Administrative User may impact Motorola's ability to perform its obligations under the Agreement or its Maintenance and Support Agreement. In such cases, a revision to the appropriate provisions of the Agreement, including the Statement of Work, may be necessary. To the extent Motorola provides assistance to correct any issues caused by or arising out of the use of or failure to maintain Administrative User Credentials, Motorola will be entitled to bill Customer and Customer will pay Motorola on a time and materials basis for resolving the issue.

16.12. SURVIVAL OF TERMS. The following provisions will survive the expiration or termination of this Agreement for any reason: Section 3.6 (Motorola Software); Section 3.7 (Non-Motorola Software); if any payment obligations exist, Sections 5.1 and 5.2 (Contract Price and Invoicing and Payment); Subsection 9.7 (Disclaimer of Implied Warranties); Section 11 (Disputes); Section 14 (Limitation of Liability); and Section 15 (Confidentiality and Proprietary Rights); and all of the General provisions in Section 16.



The Parties hereby enter into this Agreement as of the Effective Date.

Motorola Solutions, Inc.

Customer

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



Exhibit A

SOFTWARE LICENSE AGREEMENT

This Exhibit A Software License Agreement ("Agreement") is between Motorola Solutions, Inc., ("Motorola"), and _____ ("Licensee").

For good and valuable consideration, the parties agree as follows:

Section 1 DEFINITIONS

1.1 "Designated Products" means products provided by Motorola to Licensee with which or for which the Software and Documentation is licensed for use.

1.2 "Documentation" means product and software documentation that specifies technical and performance features and capabilities, and the user, operation and training manuals for the Software (including all physical or electronic media upon which such information is provided).

1.3 "Open Source Software" means software with either freely obtainable source code, license for modification, or permission for free distribution.

1.4 "Open Source Software License" means the terms or conditions under which the Open Source Software is licensed.

1.5 "Primary Agreement" means the agreement to which this exhibit is attached.

1.6 "Security Vulnerability" means a flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach such that data is compromised, manipulated or stolen or the system damaged.

1.7 "Software" (i) means proprietary software in object code format, and adaptations, translations, de-compilations, disassemblies, emulations, or derivative works of such software; (ii) means any modifications, enhancements, new versions and new releases of the software provided by Motorola; and (iii) may contain one or more items of software owned by a third party supplier. The term "Software" does not include any third party software provided under separate license or third party software not licensable under the terms of this Agreement.

Section 2 SCOPE

Motorola and Licensee enter into this Agreement in connection with Motorola's delivery of certain proprietary Software or products containing embedded or pre-loaded proprietary Software, or both. This Agreement contains the terms and conditions of the license Motorola is providing to Licensee, and Licensee's use of the Software and Documentation.

Section 3 GRANT OF LICENSE

3.1. Subject to the provisions of this Agreement and the payment of applicable license fees, Motorola grants to Licensee a personal, limited, non-transferable (except as permitted in Section 7) and non-exclusive license under Motorola's copyrights and Confidential Information (as defined in the Primary Agreement) embodied in the Software to use the Software, in object code form, and the Documentation solely in connection with Licensee's use of the Designated Products. This Agreement does not grant any rights to source code.

3.2. If the Software licensed under this Agreement contains or is derived from Open Source Software, the terms and conditions governing the use of such Open Source Software are in the Open Source Software Licenses of the copyright owner and not this Agreement. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software Licenses governing Licensee's use of the Open Source Software, the terms and conditions of the license grant of the applicable Open Source Software

Licenses will take precedence over the license grants in this Agreement. If requested by Licensee, Motorola will use commercially reasonable efforts to: (i) determine whether any Open Source Software is provided under this Agreement; (ii) identify the Open Source Software and provide Licensee a copy of the applicable Open Source Software License (or specify where that license may be found); and, (iii) provide Licensee a copy of the Open Source Software source code, without charge, if it is publicly available (although distribution fees may be applicable).

Section 4 LIMITATIONS ON USE

4.1. Licensee may use the Software only for Licensee's internal business purposes and only in accordance with the Documentation. Any other use of the Software is strictly prohibited. Without limiting the general nature of these restrictions, Licensee will not make the Software available for use by third parties on a "time sharing," "application service provider," or "service bureau" basis or for any other similar commercial rental or sharing arrangement.

4.2. Licensee will not, and will not allow or enable any third party to: (i) reverse engineer, disassemble, peel components, decompile, reprogram or otherwise reduce the Software or any portion to a human perceptible form or otherwise attempt to recreate the source code; (ii) modify, adapt, create derivative works of, or merge the Software; (iii) copy, reproduce, distribute, lend, or lease the Software or Documentation to any third party, grant any sublicense or other rights in the Software or Documentation to any third party, or take any action that would cause the Software or Documentation to be placed in the public domain; (iv) remove, or in any way alter or obscure, any copyright notice or other notice of Motorola's proprietary rights; (v) provide, copy, transmit, disclose, divulge or make the Software or Documentation available to, or permit the use of the Software by any third party or on any machine except as expressly authorized by this Agreement; or (vi) use, or permit the use of, the Software in a manner that would result in the production of a copy of the Software solely by activating a machine containing the Software. Licensee may make one copy of Software to be used solely for archival, back-up, or disaster recovery purposes; *provided* that Licensee may not operate that copy of the Software at the same time as the original Software is being operated. Licensee may make as many copies of the Documentation as it may reasonably require for the internal use of the Software.

4.3. Unless otherwise authorized by Motorola in writing, Licensee will not, and will not enable or allow any third party to: (i) install a licensed copy of the Software on more than one unit of a Designated Product; or (ii) copy onto or transfer Software installed in one unit of a Designated Product onto one other device. Licensee may temporarily transfer Software installed on a Designated Product to another device if the Designated Product is inoperable or malfunctioning, if Licensee provides written notice to Motorola of the temporary transfer and identifies the device on which the Software is transferred. Temporary transfer of the Software to another device must be discontinued when the original Designated Product is returned to operation and the Software must be removed from the other device. Licensee must provide prompt written notice to Motorola at the time temporary transfer is discontinued.

4.4. When using Motorola's Radio Service Software ("RSS"), Licensee must purchase a separate license for each location at which Licensee uses RSS. Licensee's use of RSS at a licensed location does not entitle Licensee to use or access RSS remotely. Licensee may make one copy of RSS for each licensed location. Licensee shall provide Motorola with a list of all locations at which Licensee uses or intends to use RSS upon Motorola's request.

4.5. Licensee will maintain, during the term of this Agreement and for a period of two years thereafter, accurate records relating to this license grant to verify compliance with this Agreement. Motorola or an independent third party ("Auditor") may inspect Licensee's premises, books and records, upon reasonable prior notice to Licensee, during Licensee's normal business hours and subject to Licensee's facility and security regulations. Motorola is responsible for the payment of all expenses and costs of the Auditor. Any information obtained by Motorola and the Auditor will be kept in strict confidence by Motorola and the Auditor and used solely for the purpose of verifying Licensee's compliance with the terms of this Agreement.

Section 5 OWNERSHIP AND TITLE

Motorola, its licensors, and its suppliers retain all of their proprietary rights in any form in and to the Software and Documentation, including, but not limited to, all rights in patents, patent applications, inventions, copyrights, trademarks, trade secrets, trade names, and other proprietary rights in or relating to the Software and Documentation (including any corrections, bug fixes, enhancements, updates, modifications, adaptations, translations, de-compilations, disassemblies, emulations to or derivative works from the Software or Documentation, whether made by Motorola or another party, or any improvements that result from Motorola's processes or, provision of information services). No rights are granted to Licensee under this Agreement by implication, estoppel or otherwise, except for those rights which are expressly granted to Licensee in this Agreement. All intellectual property developed, originated, or prepared by Motorola in connection with providing the Software, Designated Products, Documentation or related services, remains vested exclusively in Motorola, and Licensee will not have any shared development or other intellectual property rights.

Section 6 LIMITED WARRANTY; DISCLAIMER OF WARRANTY

6.1. The commencement date and the term of the Software warranty will be a period of ninety (90) days from Motorola's shipment of the Software (the "Warranty Period"). If Licensee is not in breach of any of its obligations under this Agreement, Motorola warrants that the unmodified Software, when used properly and in accordance with the Documentation and this Agreement, will be free from a reproducible defect that eliminates the functionality or successful operation of a feature critical to the primary functionality or successful operation of the Software. Whether a defect occurs will be determined by Motorola solely with reference to the Documentation. Motorola does not warrant that Licensee's use of the Software or the Designated Products will be uninterrupted, error-free, completely free of Security Vulnerabilities, or that the Software or the Designated Products will meet Licensee's particular requirements. Motorola makes no representations or warranties with respect to any third party software included in the Software.

6.2 Motorola's sole obligation to Licensee and Licensee's exclusive remedy under this warranty is to use reasonable efforts to remedy any material Software defect covered by this warranty. These efforts will involve either replacing the media or attempting to correct significant, demonstrable program or documentation errors or Security Vulnerabilities. If Motorola cannot correct the defect within a reasonable time, then at Motorola's option, Motorola will replace the defective Software with functionally-equivalent Software, license to Licensee substitute Software which will accomplish the same objective, or terminate the license and refund the Licensee's paid license fee.

6.3. Warranty claims are described in the Primary Agreement.

6.4. The express warranties set forth in this Section 6 are in lieu of, and Motorola disclaims, any and all other warranties (express or implied, oral or written) with respect to the Software or Documentation, including, without limitation, any and all implied warranties of condition, title, non-infringement, merchantability, or fitness for a particular purpose or use by Licensee (whether or not Motorola knows, has reason to know, has been advised, or is otherwise aware of any such purpose or use), whether arising by law, by reason of custom or usage of trade, or by course of dealing. In addition, Motorola disclaims any warranty to any person other than Licensee with respect to the Software or Documentation.

Section 7 TRANSFERS

Licensee will not transfer the Software or Documentation to any third party without Motorola's prior written consent. Motorola's consent may be withheld at its discretion and may be conditioned upon transferee paying all applicable license fees and agreeing to be bound by this Agreement. If the Designated Products are Motorola's radio products and Licensee transfers ownership of the Motorola radio products to a third party, Licensee may assign its right to use the Software (other than RSS and Motorola's FLASHport® software) which is embedded in or furnished for use with the radio products and the related Documentation; provided that Licensee transfers all copies of the Software and Documentation to the transferee, and Licensee and the transferee sign a transfer form to be provided by Motorola upon request, obligating the transferee to be bound by this Agreement.

Section 8 TERM AND TERMINATION

8.1 Licensee's right to use the Software and Documentation will begin when the Primary Agreement is signed by both parties and will continue for the life of the Designated Products with which or for which the Software and Documentation have been provided by Motorola, unless Licensee breaches this Agreement, in which case this Agreement and Licensee's right to use the Software and Documentation may be terminated immediately upon notice by Motorola.

8.2 Within thirty (30) days after termination of this Agreement, Licensee must certify in writing to Motorola that all copies of the Software have been removed or deleted from the Designated Products and that all copies of the Software and Documentation have been returned to Motorola or destroyed by Licensee and are no longer in use by Licensee.

8.3 Licensee acknowledges that Motorola made a considerable investment of resources in the development, marketing, and distribution of the Software and Documentation and that Licensee's breach of this Agreement will result in irreparable harm to Motorola for which monetary damages would be inadequate. If Licensee breaches this Agreement, Motorola may terminate this Agreement and be entitled to all available remedies at law or in equity (including immediate injunctive relief and repossession of all non-embedded Software and associated Documentation unless Licensee is a Federal agency of the United States Government).

Section 9 UNITED STATES GOVERNMENT LICENSING PROVISIONS

This Section applies if Licensee is the United States Government or a United States Government agency. Licensee's use, duplication or disclosure of the Software and Documentation under Motorola's copyrights or trade secret rights is subject to the restrictions set forth in subparagraphs (c)(1) and (2) of the Commercial Computer Software-Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless they are being provided to the Department of Defense. If the Software and Documentation are being provided to the Department of Defense, Licensee's use, duplication, or disclosure of the Software and Documentation is subject to the restricted rights set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. The Software and Documentation may or may not include a Restricted Rights notice, or other notice referring to this Agreement. The provisions of this Agreement will continue to apply, but only to the extent that they are consistent with the rights provided to the Licensee under the provisions of the FAR or DFARS mentioned above, as applicable to the particular procuring agency and procurement transaction.

Section 10 CONFIDENTIALITY

Licensee acknowledges that the Software and Documentation contain Motorola's valuable proprietary and Confidential Information and are Motorola's trade secrets, and that the provisions in the Primary Agreement concerning Confidential Information apply.

Section 11 LIMITATION OF LIABILITY

The Limitation of Liability provision is described in the Primary Agreement.

Section 12 NOTICES

Notices are described in the Primary Agreement.

Section 13 GENERAL

13.1. **COPYRIGHT NOTICES.** The existence of a copyright notice on the Software will not be construed as an admission or presumption of publication of the Software or public disclosure of any trade secrets associated with the Software.

13.2. **COMPLIANCE WITH LAWS.** Licensee acknowledges that the Software is subject to the laws and regulations of the United States and Licensee will comply with all applicable laws and regulations, including export

laws and regulations of the United States. Licensee will not, without the prior authorization of Motorola and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision is a material breach of this Agreement.

13.3. **ASSIGNMENTS AND SUBCONTRACTING.** Motorola may assign its rights or subcontract its obligations under this Agreement, or encumber or sell its rights in any Software, without prior notice to or consent of Licensee.

13.4. **GOVERNING LAW.** This Agreement is governed by the laws of the United States to the extent that they apply and otherwise by the internal substantive laws of the State to which the Software is shipped if Licensee is a sovereign government entity, or the internal substantive laws of the State of Illinois if Licensee is not a sovereign government entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a party's performance under this Agreement, UCITA does not govern any aspect of this Agreement or any license granted under this Agreement, or any of the parties' rights or obligations under this Agreement. The governing law will be that in effect prior to the applicability of UCITA.

13.5. **THIRD PARTY BENEFICIARIES.** This Agreement is entered into solely for the benefit of Motorola and Licensee. No third party has the right to make any claim or assert any right under this Agreement, and no third party is deemed a beneficiary of this Agreement. Notwithstanding the foregoing, any licensor or supplier of third party software included in the Software will be a direct and intended third party beneficiary of this Agreement.

13.6. **SURVIVAL.** Sections 4, 5, 6.4, 7, 8, 9, 10, 11 and 13 survive the termination of this Agreement.

13.7. **ORDER OF PRECEDENCE.** In the event of inconsistencies between this Exhibit and the Primary Agreement, the parties agree that this Exhibit prevails, only with respect to the specific subject matter of this Exhibit, and not the Primary Agreement or any other exhibit as it applies to any other subject matter.

13.8. **SECURITY.** Motorola uses reasonable means in the design and writing of its own Software and the acquisition of third party Software to limit Security Vulnerabilities. While no software can be guaranteed to be free from Security Vulnerabilities, if a Security Vulnerability is discovered, Motorola will take the steps set forth in Section 6 of this Agreement.

Exhibit B

PAYMENT SCHEDULE

Except for a payment that is due on the Effective Date, Customer will make payments to Motorola within twenty (20) days after the date of each invoice. Customer will make payments when due in the form of a check, cashier's check, or wire transfer drawn on a U.S. financial institution and in accordance with the following milestones.

1. 25% of the Contract Price due upon contract execution;
2. 35% of the Contract Price due upon shipment of equipment;
3. 30% of the Contract Price due upon installation of equipment;
4. 5% of the Contract Price upon system acceptance or start of beneficial use; and
5. 5% of the Contract Price due upon Final Acceptance.

Motorola reserves the right to make partial shipments of equipment and to request payment upon shipment of such equipment. In addition, Motorola reserves the right to invoice for installations or civil work completed on a site-by-site basis, when applicable.

Exhibit C

TECHNICAL AND IMPLEMENTATION DOCUMENTS

November 20, 2014

Use or disclosure of this proposal is subject
to the restrictions on the cover page.

Exhibit D

SERVICE STATEMENT(S) OF WORK

and

SERVICE TERMS AND CONDITIONS (IF APPLICABLE)

Exhibit E
System Acceptance Certificate

Customer Name: _____

Project Name: _____

This System Acceptance Certificate memorializes the occurrence of System Acceptance. Motorola and Customer acknowledge that:

1. The Acceptance Tests set forth in the Acceptance Test Plan have been successfully completed.
2. The System is accepted.

Customer Representative:

Motorola Representative:

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

FINAL PROJECT ACCEPTANCE:

Motorola has provided and Customer has received all deliverables, and Motorola has performed all other work required for Final Project Acceptance.

Customer Representative:

Motorola Representative:

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

OUR COMMITMENT

Motorola Solutions connects people through technology. Businesses and government agencies around the world turn to Motorola Solutions innovations when they want highly connected teams that have the information they need throughout their workdays and in the moments that matter most to them.

You can find Motorola Solutions products and services in a wide range of workplaces. From the retail floor to the warehouse floor, and from the small town police station to the most secure government offices, our products support customers who make up the diverse global economy. We are proud that our products support mobile transactions of all kinds, as well as the safety and security of citizens everywhere.

Our customers rely on us for the expertise, services and solutions we provide, trusting our years of invention and innovation experience. By partnering with customers and observing how our products can help in their specific industries, we are able to enhance our customers' experience every day.

Motorola Solutions—An Industry Leader

Motorola Solutions serves both enterprise and government customers with core markets in public safety government agencies and commercial enterprises. Our leadership in these areas includes public safety communications from infrastructure to applications and devices such as radios as well as task-specific mobile computing devices for enterprises. We produce advanced data capture devices such as barcode scanners and RFID (radio-frequency identification) products for business. We make professional and commercial two-way radios for a variety of markets, and we also bring unlicensed wireless broadband capabilities and wireless local area networks – or WLAN – to retail enterprises

Pioneering New Areas of Cognitive Research

As an industry leader in government and public safety, we design and develop devices including radios and the infrastructure that supports them. Our mission-critical design philosophy led to our new High Velocity Human Factors investigation, an area of cognitive research that helps us develop products for first responders by working with them in crisis situations to study their communication needs. We take what we learn in the field and bring it back to the lab to create products that will function under extreme conditions and networks that will reliably support those products.

Our Focus: Our Customers

Working with our global channel partner community, Motorola Solutions reaches an extensive customer base, from small businesses to Fortune 500 companies. Our focus is on developing integrated end-to-end solutions that deliver a clear return on investment, and our products empower individuals through seamless connectivity.

Upon request, your Motorola account executive can provide a firm proposal tailored to meet your solution needs.



Funding Committee recommendation is to
approve Randolph County's funding
reconsideration request for FY2017 to
\$1,838,378

911 Funding Committee Report **Jason Barbour**

b) Presentation of FY17 Budget

NC 911 Board Proposed Budget 2016-2017

ADMINISTRATIVE EXPENDITURES	Account	Cost Center	ESTIMATED			COMMENTS
			Approved Budget SFY2016	JUNE 30, 2016 Expenses	Proposed Budget SFY2017	
SPA-Reg Salaries	531212	290053500	434,280	346,000	465,631	FY2015 Full Year 5 FTE & .33 FTE DIT Personnel 1 Network Analyst (additional approved) 1 911 Financial Review Specialist (additional approved)
EPA&SPA Longevity Pay	531462	290053500	3,300	4,196	4,199	
Social Sec Contrip-Recpt	531512	290053500	36,736	28,736	35,942	
Reg Retire Contrib Recpt	531522	290053500	73,042	59,487	71,978	
Med Ins Contrib-Recpt	531562	290053500	39,817	29,769	40,212	
UNEMP Comp Payments to DE			1,000	500	1,000	
Flexible Spending	531576	290053500	600	600	1,000	
NONTAX Emp Cell Ph Reimb	531664	290053500	840	840	840	
Lapsed Salaries	531523	290053500	0	4,013	12,359	
Personnel Services Total			\$ 589,615	\$ 474,141	\$ 633,161	
Legal Services	532110	290053500	34,000	33,959	36,000	DOJ/Richard Bradford 2.75% increase
Finan/Audit Services	532120	290053500	35,000	31,443	35,000	911 Board Audit/OSA Hours
IT Subscription Support	53214B	290053500	33,000	33,000	93,000	DIT Overhead cost allocation- Bush St space Contract personnel costs for analyzing, designing, and/or implementing support
Other Information Technology Services	532140	290053500	5,000	0	5,000	for a system or systems modification. Programming data entry.
Application Development	532148	290053500	10,000	2,500	10,000	Web Development
IT Project Management/Analysis Services	532149	290053500	100,000	35,000	100,000	DIT/Proj Mgr - Board projects - Internal (Joe Sewash CGIA)
Admin Services - Temp Agency	5321700002	290053500	80,000	87,667	80,000	911 Special Assignments (Ron Adams - Minutes & Project) Network Analyst
Miscellaneous Contractual Service	532199	290053500	5,000	3,500	10,000	Stenographer
Miscellaneous - Training	532199028	290053500	10,000	9,975	15,000	PSAP Training
Workshop/Conf-Exp (Contractual)	532199900	290053500	35,000	73,035	75,000	PSAP Managers Meetings/ Board workshop
Workshop/Conf-Room Rental	532513900	290053500	10,000	7,612	10,000	PSAP Managers Meetings/ Board workshop
Contractual Services Total			\$ 357,000	\$ 317,691	\$ 469,000	
Rent/Lease Motor Vehicle	532521	290053500	29,549	22,000	29,549	3 FTE (.36 per mile & 35.00 per each insurance-maint.) (REVIEW for 4FTE)
Rent/Lease-Voice Comm Equip	532523	290053500	360		360	
Operational Services Total			\$ 29,909	\$ 22,000	\$ 29,909	
Travel expenses -5.33 FTE & Temp Personnel (NEED to increase to 7.33)						
Trans Air-Out State	532712	290053500	7,000	7,000	10,000	Nena, 911 goes to Washington, NASNA, APCO

NC 911 Board Proposed Budget 2016-2017

ADMINISTRATIVE EXPENDITURES	Account	Cost Center	ESTIMATED			COMMENTS
			Approved Budget SFY2016	JUNE 30, 2016 Expenses	Proposed Budget SFY2017	
Transp-Grnd In-State	532714	290053500	4,000	3,000	4,000	
Trans Grnd-Out In State	532715	290053500	350	350	600	
Transp Other In State	532717	290053500	1,000	800	1,200	
Transp-Other Outstate	532718	290053500	600	250	600	
Lodging In-State	532721	290053500	32,000	30,073	40,000	
Lodging Out-State	532722	290053500	8,800	8,000	9,000	
Meals- In State	532724	290053500	18,000	14,702	22,500	
Meals-Out state	532725	290053500	2,200	1,952	3,000	
Travel - Staff Total			\$ 73,950	\$ 66,127	\$ 90,900	
BD/Non-Emply Transp	532731	290053500	4,000	2,000	4,000	
BD/Non-Emply Subsis	532732	290053500	14,500	12,850	14,500	
BD/Workshops-Conference Expense	532732900	290053500	6,350	3,500	6,350	Board Meeting, Standards, NG911, Funding, Education, PSAP Mgrs Mtg
Board Member Total			\$ 24,850	\$ 18,350	\$ 24,850	
Telephone Service	532811	290053500	5,500	5,400	7,560	5FTE - 1 contractor (NEED to increase to 7 and possible 1 contractor)
Telecommun Data Charge	532812	290053500	5,400	2,800	2,800	
Teleconference charges	532813	290053500	4,000	1,668	2,000	
Cellular Phone Services	532814	290053500	4,500	2,000	3,000	
Email and Calendaring	532815	290053500	940	400	940	
Video Transmission Charge	532816	290053500	3,000	0	3,000	
Computer/Data Process Sv	532821	290053500	4,500	0	2,500	
Electronic Services	532827	290053500	5,900	5,200	5,600	Electronic Document Management per seat cost
Managed Desktop Services	532828	290053500	7,000	7,500	8,800	per seat cost
Pos, FR&DEL Postal Meter	532840001	290053500	100	25	25	
Pos, FR&DEL Postal Meter	532840002	290053500	25	1	1	
Pos, FR&DEL Postal Meter	532840003	290053500	300	750	750	
Print, Bind, Duplicate	532850	290053500	40,000	20	2,000	Public Education Materials
Advertising	532860	290053500	100,000	33,333	75,000	Public Education
Property Insurance	532911	290053500	25	14	14	
Registration Fees	532930	290053500	4,500	2,695	4,500	
Training	532942	290053500	4,000	0	4,000	
Membership Fees	535830	290053000	7,500	3,550	6,000	NENA/APCO & Next Gen 911
Supplies	533110	290053500	1,200	1,200	2,000	
Other Purchased Services Total			\$ 198,390	\$ 66,556	\$ 130,490	

NC 911 Board Proposed Budget 2016-2017

ADMINISTRATIVE EXPENDITURES	Account	Cost Center	ESTIMATED			COMMENTS
			Approved Budget SFY2016	JUNE 30, 2016 Expenses	Proposed Budget SFY2017	
Furn-Office	534511	290053500	800	0	2,000	
Computer and Printer Purchases	534534	290053500	7,768	255	3,500	Board Tablets.
Oth Equip Audio/Visual	534539001	290053500	3,000	810	4,000	
Equipment Total			\$ 11,568	\$ 1,065	\$ 9,500	
NG 911 Capital Project						
IT Project MGMT Analysis Svc	532149	290053500	27,600	5,000	25,000	Board Approved NG Project
Misc. Contractual service	532199	290053500	472,380	500,000	500,000	
NG 911 Cap. Total			\$ 499,980	\$ 505,000	\$ 525,000	

NC 911 Board Proposed Budget 2015-2016

			Budget	Estimated	Proposed	COMMENTS
			SFY2016	Year-End Total SFY2016	Budget SFY2017	
CMRS Cost Recovery & PSAP Expenditures						
CMRS Statutory Distri/911	536501	29004000	9,500,000	7,750,000	9,000,000	Cost Recovery
PSAP Statutory Distri/911	536501	29005002	60,000,000	49,846,846	54,000,000	PSAP Distribution/Reconsiderations/Secondary PSAPs
			<u>\$ 69,500,000</u>	<u>\$ 57,596,846</u>	<u>\$ 63,000,000</u>	

NOTES:
Vance County: submitting reconsideration 07/01/2016

NC 911 Board Proposed Budget 2015-2016

Grants			Budget SFY2016	Proposed Budget SFY2017	COMMENTS
PSAP Fund Balance Estimated Year-End:			18,618,895	19,943,420	<i>Estimated Remaining PSAP fund balance transferred during 1st quarter FY2016</i>
Encumbered for Open Awards:	536501	29005003	21,270,391	30,185,881	<i>This amount is subject to change due to payments made after budget approval.</i>
			\$ 39,889,286	\$ 50,129,301	

Current Status of Grants Contracts:			Possible Carry Forward FY2016	COMMENTS
Statewide Grants (ongoing)				
ECaTs Call Tracking System (04/30/2015)	532199	29005003012	1,749,388	
IMAGE14 (06/30/2015)	536501	29005003032	596,557	
IMAGE15 (06/30/2016)	536501	29005003033	414,278	
IMAGE 16	536501	29005003038	3,872,583	
Total			\$ 6,632,806	

Public Safety Answering Point Grants:				
Stanly Co. Consortium Brunswick & Haywood Ctrs	532199	29005003012	41,250	
Burke -2012 Consolidation Multiple Ctrs(01/31/2014)	536501	29005003019	328,672	
Rockingham -2012 Consolidation Multiple Ctrs (06/30/2015)	536501	29005003017	681,279	
Brunswick 2013 Consolidation Oak Island (06/30/2014)	536501	29005003020	210,055	
Lenoir/Jones 2013 Consolidation (12/31/2014)	536501	29005003021	484,164	
Anson 2014 Enhancement/Replacement (06/30/2015)	536501	29005003024	151,557	
Henderson 2014 PSAP Relocation (06/30/2015)	536501	29005003027	166,707	
Hertford 2014 PSAP Consolidation (06/30/2016)	536501	29005003028	2,032,043	
Orange 2014 Enhancement/Replacement	536501	29005003029	71,450	
Swain 2014 Equip Enhancement/Replacement (06/30/2015)	536501	29005003030	12,755	
Caldwell - 2015 Enhancement/Replacement (12/31/2015)	536501	29005003033	27,099	
Dare-Tyrrell Consolidation (06/30/2018)	536501	29005003036	6,526,557	
Haywood Enhancement/Replacement (12/31/2015)	536501	29005003037	1,793,735	
Graham 911 Relocation & Tech Refresh	536501	29005003039	3,401,528	
Hyde/Dare/Tyrell Regional Emergency Center	536501	29005003040	1,266,887	
Richmond Co Communications Consolidation	536501	29005003041	6,357,337	
Total			\$ 23,553,075	

NC 911 Board Proposed Budget 2015-2016

Revenue			Budget SFY2016	Actuals SFY2014	Actuals SFY2015	Estimated Year-End Total SFY2016	Proposed SFY2017
CMRS Fund:							
CMRS Revenue	435500	29004000	9,500,000	8,911,847	9,036,276	8,681,000	8,898,025
PSAP Fund:							
Wireless (Derived from CMRS Receipts)	435500118	29005002	37,000,000	35,647,391	36,145,102	34,723,965	35,592,064
Wireline Receipts	435500118	29006001	17,000,000	16,369,002	15,303,835	13,770,473	14,011,456
VOIP Receipts	435500118	29006002	9,800,000	9,338,461	9,401,250	12,208,562	12,452,733
Prepaid Wireless Receipts	435500118	29006003	9,500,000	4,826,568	8,825,064	10,320,899	10,527,317
subtotal:				75,093,269	78,711,527	79,704,899	81,481,596
Next Generation 911 Fund 10%							
NG 911 Revenue	435500118	292061000	0	0	0	3,712,588	8,148,160
Admin Fund:							
Administrative 1%	434160002	290053500	810,000	750,933	787,118	798,546	733,334

				Estimated Year-End Total SFY2016	Proposed SFY2017
INTEREST					
INTEREST EARNED:					
Interest/div Invest/Plan CMRS	433120	29004000	15,000	21,319	25,000
Interest/div Invest/Plan PSAP	433120	29005002	43,000	72,826	80,000
Interest/div Invest/Plan Admin.	433120	290053500	14,000	17,181	20,000
Interest/div Invest/Plan Grant	433120	29005003	175,000	211,621	250,000
Interest/div Invest/Plan NG 911	433120	292061000	0	3,166	22,000
Total			247,000	326,113	397,000

NC 911 Board Proposed Budget 2015-2016

TRSFUND			Budget	Estimated	Proposed	COMMENTS
			SFY2016	Year-End Total SFY2016	SFY2017	
TRS Expenditure	538125	29102600	\$ 12,800,000	\$ 11,365,878	\$ 12,800,000	Pass through to DHHS
TRS Revenue Interest	433110	29102600	\$ 5,500	\$ 7,800	\$ 8,000	
TRS Revenue	435500	29102600	\$ 12,800,000	\$ 11,365,878	\$ 12,800,000	

NC 911 Board Proposed Budget 2015-2016

911 Board Proposed FY2017 Budget - Rollup

<u>Description</u>	Budget SFY2016	Proposed Budget SFY2017
Revenues -		
Int/Div on Investments	247,000	397,000
Combined Fund - Admin Fees	79,704,899	81,481,596
Fund Balance -Admin	939,717	679,476
Fund Balance -Grant	37,370,391	50,129,301
Total	\$ 118,262,007	\$ 132,687,372

Expenditures

Personnel Services	606,725	633,161
Contractual Services	815,000	494,000
Operational Services	62,909	29,909
Travel - Staff	73,950	90,900
Board Member Travel & Exp	25,000	24,850
Other Purchased Services	158,565	130,490
Equipment	21,568	9,500
CMRS Statutory Distri./911	9,600,000	9,000,000
PSAP Statutory Distri./911	60,000,000	54,000,000
Grant Statutory Distri./911	41,885,246	50,129,301
Total	\$ 113,248,963	\$ 114,542,111

NG 911 Fund (Revenue)	8,148,160
NG 911 Capital Project Expenditure	500,000

	Budget SFY2016	Proposed Budget SFY2017
TRS FUND		
TRS Expenditure	\$ 12,800,000	\$ 12,800,000

NC 911 Board Proposed Budget 2015-2016

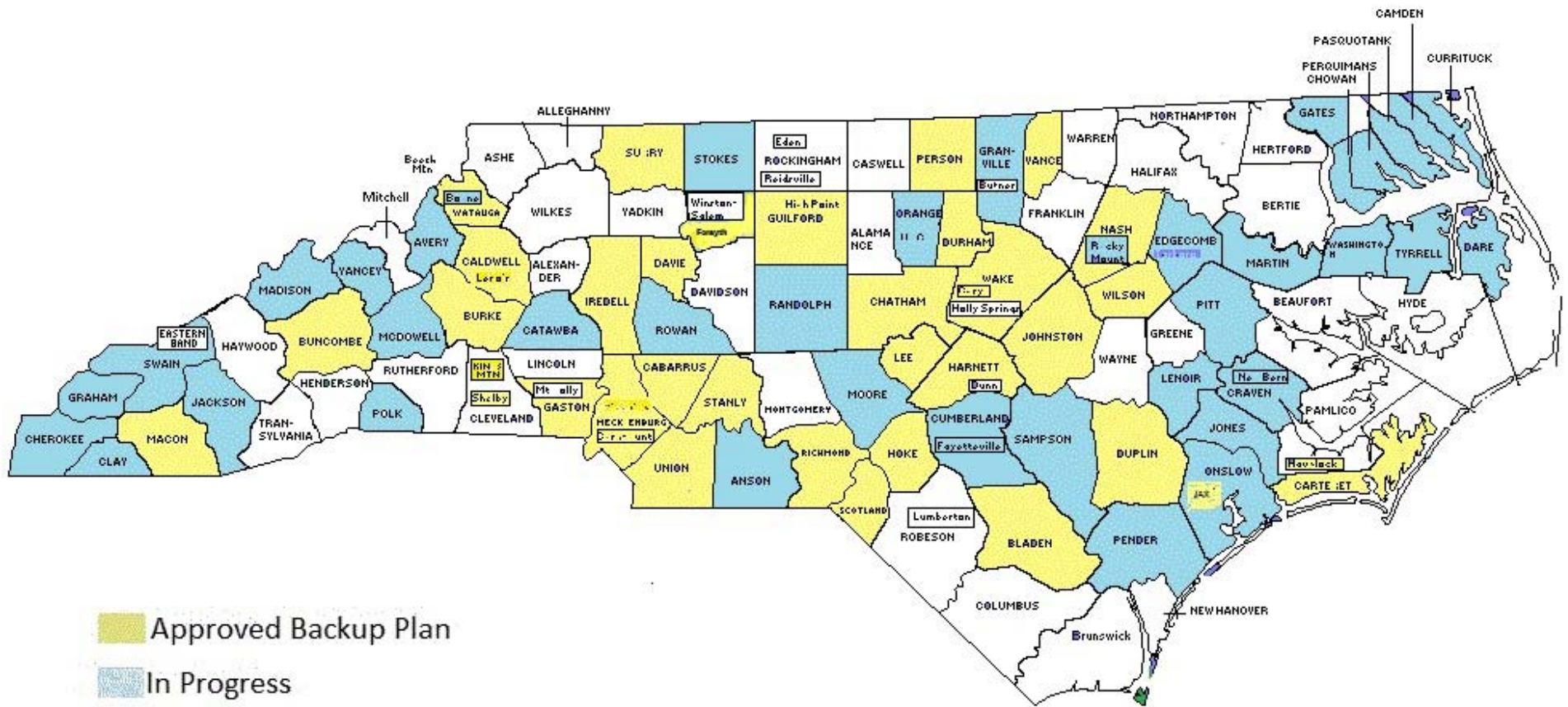
TRS Revenue Interest	\$ 5,500	\$ 8,000
TRS Revenue	\$ 12,800,000	\$ 12,800,000

911 Funding Committee Report **Jason Barbour**
(c) Recommendation For Award of
Interpretive Services RFP
(vote required)

NG911 Project Update

Jeff Shipp

- a) Discussion on NG-911 RFP
(vote required)



PSAP	Approved BackUp Plan	Person Contacted	Response	Response from City/County Manager
Alamance County Central Communications		Dexter Brower	12/3/2015 TGB Phone conversation with Dexter...they may be going in on a regional backup that would include Orange, Person, and Caswell Counties.	
Alexander County E9-1-1 Communications		Greg Foster	12/7/2015 TGB Greg has worked on it, but doesn't have approval from management to go forward.	1/25/2016 letter, Have a committee working but requested David Dodd to come and assist
Alleghany County E911		Pat Irwin	12/3/2015 Emailed Pat Irwin to find out if they have started a backup plan.	1/19/2016 Don Adams called, stated they would "make the deadline"; he would send a letter

Anson County Emergency Communications		Holly Mullis	4/18/2016 TGB Asked Randy again for quotes. 4/5/2016 TGB Asked Randy Gullledge for an update about getting quotes. 3/7/2016 TGB Backup Plan Received and placed in CARA. Discussed lack of quotes with Randy Gullledge. He will get them.12/3/2015 Emailed Holly Mullis to find out if they have started a backup plan.	
Ashe County Communications Center		Phil Howell	4/18/2016 TGB Phil is working on a plan, but has not submitted any documentation. I have requested some documentation. David Dodd and I are meeting with them February 24, 2016. 2/24/2016: Tina and I did meet with Phil Howell and talked about his backup plan. He is looking at a stand alone facility in Ashe County. Calls will go to Wilkes during transition. DD	
Avery County Communications Center		Jamey Johnson	4/15/2016 TGB David Dodd sent the plan back to Jamey with more questions and asked for financial documentation. 3/4/2016 TGB David Dodd sent some questions to Jamey about his backup plan.2/26 TGB Jamey Johnson submitted plan. DD uploaded to CARA12/3/2015 TGB Jamey Johnson stated he was working on a plan to use Burke County as his backup.	

Beaufort County Communications Center		Vic Williams	<p>3/23/2016TGB David Dodd and myself met with Vic about his plan. He plans to use the Chocowinity Fire Dept., however; we do not have a plan in writing. 2/19/2016 TGB I received an email from Vic stating he was thinking of a backup location to be at the Beaufort County Emerency Management Office or the Chocowinity Fire Department. He's working with Gately Communications on the equipment and EIS Data Systems on the link, and CenturyLink on the trunks. He will submit the plan in its entirety as soon as he gets all quotes. 1/5/2015 Vic Williams stated he was going to begin working on it now that EMD was live.</p>	
Bertie County Communications		JW Stalls	<p>4/5/2016 TGB Asked JW Stalls for an update since Martin County's plan did not include Bertie. 1/26/2016 TGB JW stated she planned to be in the new communications center this spring and wanted to utilize the old center for her backup, however; the Sheriff has been talking with Martin County about partnering.</p>	

Bladen Central	✓			
Brunswick County Central Communications		Todd Coring	4/18/2016 TGB I have requested to meet with him on 4/26/2016. 4/5/2016 TB Lt. Coring has asked for a meeting to discuss his plan. We will be meeting in a couple of weeks. 12/8/2015 Lt. Coring stated he would begin working on a plan after first of the year. He wanted to talk with New Hanover County since they were wanting to do a regional backup.	
Buncombe County Emerg. Communications	✓			
Burke County Consolidated 911 Communications	✓			
Cabarrus County Sheriff Communications	✓			
Caldwell County Sheriff's Office/E-911 Comm Center	✓			
Carteret County Emergency Services	✓			

Caswell County 911 Communications		Harvey Rudd	12/3/2015 TGB Harvey stated he may be going in on a regional backup with Orange, Person, and Alamance Counties.	
Catawba Co Communications Center		Brian Drum	4/5/2016 TGB Asked Brian Drum for an update on getting quotes and MOU. 3/15/2016 TGB Asked Brian if he had gotten quotes and MOU signed yet. 2/11/2016 TGB Plan approved contingent on getting MOU, quotes, and Marsha's approval.	
Chatham County Emergency Operations	✓			
Cherokee County		Theresa Creasman	3/30/2016 TGB Met with the new Director, Chief Deputy, and IT Manager. They do have a plan in the works. I explained to them some aspects of their plan that needed to be revised. I've also asked for an electronic copy. 3/15/2016 TGB David and I will be meeting with the new PSAP Director March 30th. 1/04/2016 Janice Costello resigned. She had submitted a very rough draft of a plan, but it had not been approved by her folks	

Chowan Central Communications		Cordell Palmer	2/26/2016 Cordell Palmer submitted plan. It is in CARA2/15/2016 TGB Cordell Palmer stated they have a meeting on Feb. 23rd and then he will submit a rough draft...with Perquimans. 1/12/2016 TGB Cordel wants to submit a draft plan to make sure he's on the right track.	
Clay County Dispatch		Dena Jenkins	3/30/2016 TGB Met with Dena and went over her backup plan. I suggested a few changes. 2/2/2016 TGB Sent plan back to Dena with questions.	
Cleveland County 911 Communications		Lorie Poston	4/5/2016 TGB Lori stated she had a discussion with AT&T..They share the same pipe with Shelby for about 800 feet. That pipe is where all the lines split off from. 3/8/2016 TGB I visited with Lorie Poston and discussed her backup plan. She is contuing to work onit. 12/3/2015 TGB Lori Poston stated they were working on a plan but it would probably not include Shelby.	
Kings Mountain Communications	✓			

Shelby Police Communications	✓			
Columbus Central Communications		Valecia Pike/Kay Worley	4/5/2016 TGB Asked Kay Worley for an update. 2/3/2016 TGB Kay Worley stated they were working on theirs. They couldn't be involved in a regional because of their radio system. She requested example plans so I sent them to her.	
New Bern Emergency Communications		Rick Youngs	4/18/2016 TGB Quotes are in..will be sending to Marsha for approval. 4/5/2016 TGB Asked Rick Youngs for an update. 3/17 TGB Plan received and placed in CARA 2/8/2016 TGB Rick stated they already have a fiber link with the county and are going to update their plan and resubmit. 1/13/2016 TGB Sent plan back to Rick to answer some questions.	
Craven County Emergency Communications		Stanley Kite	4/18/2016 TGB Waiting on CenturyLink quote. 4/5/2016 TGB Asked Stanley Kite for an update on getting quotes. 3/15/2016 TGB Approved contingent on quotes. 2/22/2016 TGB Stanley Kite submitted his plan. It is under review.	

Havelock Police Department	✓			
Cumberland County 9-1-1		Randy Beaman	4/18/2016 TGB Plan sent back with some questions, also waiting on MOU. 3/28/2016 TGB Plan Submitted and placed in CARA. David and I are going over it. Cumberland and Fayetteville met 2/9/2016 to discuss partnering together for a backup solution.	
Fayetteville Communications		Lisa Reid	4/18/2016 TGB Plan sent back with some questions, also waiting on MOU. 3/28/2016 TGB Plan Submitted and placed in CARA. David and I are going over it.Cumberland and Fayetteville met 2/9/2016 to discuss partnering together for a backup solution.	
Currituck Communications		Liz Hodgis	4/7/2016 TGB Waitin on MOU from Pasquotank. 4/5/2016TGB Have asked Liz Hodgis for an update on getting quotes, etc. 2/3/2016 TGB Liz Hodgis is going to check with a vendor about more bandwidth. She will also gets quotes and a signed MOU with Pasquotank.	

Dare Central Communications		Trey Piland	2/10/2016 TGB Trey is waiting for information about recurring cost before submitting his plan. He hopes to have that information next week.	
Davidson County 911		Terry Bailey		
Davie County 911 Communications	✓	Rodney Pierce	2/20/2016 TGB Marsha commented and approved contingent on radio contract 2/9/2016 TGB Plan is approved contingent on the financial documentation. Asked Marsha to look at it.	
Duplin County Communications	✓			
Durham Emergency Communications	✓			
Edgecombe County 911		Mike Catagnus	2/3/2016 TGB Met with Mike Catagnus from the County and Sgt. Webb from Tarboro PD about backing one another up. Mike submitted a rough draft and is continuing to work on his plan with Tarboro PD.	

Tarboro Police Communications		Sgt. Jesse Webb	2/3/2016 TGB Met with Mike Catagnus from the County and Sgt. Webb from Tarboro PD about backing one another up. Mike submitted a rough draft and is continuing to work on his plan with Tarboro PD.	
Forsyth County 911 Communications	✓	Herb Swaim	4/5/2016 TGB Plan Approved 2/9 TGB plan submitted. Marsha is going over financial documentation.	
Winston Salem Police Department		Rebecca Boles		1/15/2016 letter, plan expected to be completed early March 2016
Franklin County Communications Center		Christy Shearin	4/5/2016 TGB Asked Christy Shearin for an update. 2/19/2016 TGB Christy Shearin is trying to determine a specific location in the former hospital. She has some quotes, but they won't be accurate until she specifies a true location.	
Gaston County 911 Communications	✓			

Mount Holly Police Department		Kelly Hoyle	4/5/2016 TGB Have asked Kelly Hoyle for an update on her backup plan. She had a hand written she showed me at the NENA/APCO meeting.	
GatesCounty Central Communications		Herman Weis	4/18/2016 TGB Herman wants a meeting to discuss connectivity. 3/15/2016 TGB Herman is waiting ona couple more quotes. I'm assisting him with his plan.	
Graham County 911		Misty Hembree	3/31/2016 TGB I met with Misty about her backup plan. She has made great progress with it and continues to work on it.	
Granville County Emergency Services		Stacey Tapp	4/18/2016 TGB Michael Felts is supposed to be getting a break down on radio equipment and a statement of work on cad and mapping. 4/5/2016 TGB I sent the plan back with some financial questions. They are revising. 3/15/2016 TGB I have asked her why she needs 1 gig of bandwidth. 2/10/2016 TGB sent submitted plan back to Stacey Tapp for revision or reconsideration of several things.	

Greene County Communications Center		Sharon Marshburn/Barry Anderson	3/15/2016 TGB spoke to Berry Anderson and he is developing a plan to use Jones/Lenoir.I have asked her why she needs 1 gig of bandwidth. 2/10/2016 TGB sent submitted plan back to Sharon Marshburn/Barry Anderson for revision or reconsideration of several things.	
Guilford Metro	✓			
High Point Communications	✓			
Halifax County Central Communications		Heather Joyner	4/8/2016 TGB Met with Heather Joyner and she is still trying to find a place. 2/10/2016 Heather Joyer will try to have a draft plan to us by the first of March.	
Harnett County Communications Center	✓			
Haywood County 911		Chanda Morgan	1/14/2016 TGB Trying to make contact with Chanda Morgan. She's supposed to be writing a backup plan with Henderson County.	

Henderson County Sheriff Communications		Lisha Stanly	1/14/2016 TGB Lisha is putting her plan together along with Haywood County, but she's waiting on some information from Chanda at Haywood.	
Hertford County Emergency Services		David Brown	4/11/2016 TGB David Brown stated he will be using his current center as his backup once he moves out. He hasn't submitted a plan yet. 2/10/2016 TGB David Brown stated he was trying to find a location.	
Ahoskie Police Department				
Murfreesboro Police Dept				
Hoke County Emergency Communications	✓			
Hyde County Emergency Mangement			2/10/2016 TB Trey stated consolidation won't happen until the first quarter of 2017. I have asked Justin Gibbs about a backup plan. asked Trey Piland for consolidation information	
Iredell County Emergency Communications	✓			

Jackson County Emergency Management		Wanda Hall	2/5/2016 TGB Plan sent back with some questions.	
Johnston County 911 Communications	✓			
Sanford Police Dept Communications Center	✓			
Lenoir-Jones Central Communications		Paige Johnson	3/15/2016 TGB Plan submitted, placed in CARA. Waiting on financial documentation. 2/11/2016 TGB Paige stated they were continuing to work on a plan.	
Lincoln County Communications Center		Rick Ellis	12/8/2016 TGB Rick Ellis stated they had hired an architect to build a new office building that will house the PSAP. He hopes to use the old PSAP as his backup. He stated "I'm sure that will meet the laws "substantial progress clause"."	
Macon County Communications	✓			
Madison County 911		Teresa Ogle	3/17/2016 TGB Sent to Teresa Ogle with some questions.	

Martin County Communications Center		Jason Steward	3/17/2016 TGB Jason is waiting for a quote on fiber backhaul. 3/15/2016 TGB sent Jason a message with some questions about his plan. 3/3/2016 TGB Backup Plan received and placed in CARA. 12/22/2015 TGB Per an email from the County Manager "Martin County is working on a draft back-up PSAP plan. We will share a draft plan with the 911 Board staff as soon as we can, in order to get feedback on the draft plan."	
McDowell County 911 Center		Amberlie Bluff	4/18/2016 TGB plan received and placed in CARA. 4/5/2016 TGB Trying to make contact. Was told Amberlie Bluff is out on maternity leave.	
Charlotte-Mecklenburg Police Communications	✓			
Cornelius-Huntersville Police Communications	✓			
Pineville Police Department	✓			

Mitchell County Central Communications		Stephanie Wiseman	4/5/2016TGBStephanie Wiseman is waiting on McDowell to approve the MOU. They have a meeting April 11th. 12/11/2016 TGB Stephanie states she almost has the plan together and will send when she's finished.	
Montgomery County 911 Communications		Grant Hunsucker	4/7/2016 TGB Grant states he is continuing to work with local folks on a solution. 4/5/2016 TGB Have asked Grant Hunsucker for an update. 12/08/2015 TGB Grant Hunsucker stated he was working with his IT person on a needs assessment.	
Moore County Emergency Services		Kris Sheffield		
Nash County Central Communications	✓			
Rocky Mount Central Communications		Allen Moore	4/15/2016 TGB Has submitted quotes etc. 2/19/2016 TGB Has submitted a rough draft. I'm assisting him with his plan.	

New Hanover County Public Safety Comm Center		Debora Cottle/Warren Lee	2/10/2016 TGB David Dodd sent Warren Lee several backup plans to use as an example. 2/2/2016 TGB They are working ona regional plan that would include Brunswick County.	
Northampton County Communications		Tammie Piland	4/8/2016 TGB Met with Tammie Piland and answered some questions. She does have a place all she needs is a plan. 2/16/2016 TGB Per Tammie Piland she may be partnering with Hertford but not sure at this point. 1/12/2016 TGBTammie Piland is supposed to be working on a plan with Halifax County but nothing in writing.	
Onslow County 911			4/18/2016 TGB Meeting with Ray Silance 4/27/2016 2/22/2016 TB submitted plan...it's in CARARay Silance thouht it had already been approved with the city of Jacksonville. I explained to him that Jacksonvilles plan was sent back to Chris Koltyk for some answers. He's going to see whats going on with it.2/16/2016 TGB asked Ray Silance for an update on plan.	

City of Jacksonville	✓		4/4/2016 TGB Chris Koltyk is working on financial documentation. 2/15/2016 TGB Asked Chris Koltyk for an update. 12/16/2015 TGB sent back to Chris Koltyk with questions.	
Orange County Emergency Communications		Dinah Jeffries	9/23/2015 TGB Dinah stated they were working on a plan that would include other counties.	
Pamlico County Emergency Management		Sgt. Mike Whaley	4/18/2016 TGB Asked Chris Murray for an update since their letter indicated they would have a plan in place mid-March.	1/25/2016 letter, plan should be compiled by mid-March 2016
Pasquotank/Camden E9-1-1		Tobie McPherson	2/4/2016 TGB Ronnie submitted plan. IT is in CARA	
Pender County 911		Missy Ezzell	2/22/2016 TGB compiled everything they sent into one document and sent to Marsha for financial approval. 2/2/2016 TGB Tentative approved plan. Need to have Marsha look at financial documentation.	

Perquimans County Communication		Jonathon Nixon	2/26/2016 Plan submitted and uploaded to CARA2/15/2016 TGB Jonathan Nixon stated they have a meeting on Feb. 23rd and then he will submit a rough draft...with Chowan.	
Person County Emergency Communications	✓			
Pitt County Communications		Sam Tyson	2/1/2016 TGB Sam Tyson submitted a rough draft. I sent it back to him with a lot of questions.	
Polk County Communications		James McGuinn	10/22/2015 TGB James McGuinn submitted a rough draft. He is working on updating it. Have a meeting with him in March.	
Randolph County 911		Donovan Davis	2/12/2016 TGB Dave C sent them some concerns with their submitted plan, but have not had anything else from them. Will make contact.	
Richmond County Emergency Center	✓			

Robeson E-911 Communications Center		Jimmy Williamson		1/27/2016 email, meeting with Lumberton
Lumberton Communications Center		Bill French	1/27/2016 met with Bill French. According to him he will be pursuing a different backup plan other than the one discussed with the county.	1/20/2016 letter, have met with the county on possible joint solution, no decision yet
Rockingham County 911 Communications		Rodney Cates		
Rowan County Telecommunications		Allen Cress	with a letter to extend the deadline. Need to review and make contact. 2/23/2016: DD-Met with Allen Cress, Original plan to use their old facility at the Justice Center has changed. They are now pursuing a partnership to use the Cabarrus County backup site at their DSS building in Kannapolis. They want to replace their 4 year old Patriot phone system with a Viper system to mirror Cabarrus. They use the same CAD vendor. Will need to establish a radio connection from Kanappolis back to their primary 800 Mhz radio	1/25/2016 letter, plan has been received but asking for 1 year extension

Rutherford County Communications		Tammy Aldridge		1/26/2016 email, need an additional 2 weeks to determine location
Sampson County 911 Communications		Ronald Bass/Roberta Parker	2/16/2016 TGB Plan submitted Roberta is waiting for a quote from CenturyLink 1/20/2016 TGB David Dodd and I met with them about backup plans. We also sent them examples.	
Scotland County Emergency Communications	✓			
Stanly County 9-1-1	✓			
Stokes County Emergency Communications		Del Hall	2/16/2016 TGB Del Hall submitted a plan April 2015, but David Dodd and I returned it to him with a lot of questions. I have asked him for an update.	
Surry County 911 Communications	✓			
Eastern Band of Cherokee Indians		Ray Stamper	12/09/2015 TGB Ray Stamper has not started writing a plan yet. He is exploring the idea of going in with Swain and Jackson.	

Swain County 911		David Breedlove	2/5/2016 TGB Plan sent back with some questions.	
Transylvania County 911 Center		Kevin Shook	3/15/2016 TGB Plan submitted and placed in CARA by DD. 2/16/2016 TGB Asked Kevin Shook about his plan. Waiting for a response.	
Tyrrell County Sheriffs Dept. E911 Dispatch		Sheriff Livermon	2/19/2016 TGB In conversations with Sheriff Livermon about his plan. He doesn't have one so we are trying to come up with a solution since the consolidation is right around the corner.	
Union County Communications/E911	✓			
Henderson-Vance 911 Center	✓			
Raleigh-Wake County Emergency Comm Center	✓			
Cary Police Department	✓			

Holly Springs Police PSAP		Kristin Byrd	to send me what she has so I can begin going over it. 12/09/2016 TGB Kristin states she has been working on a plan.	
Warren County E-911 Communications		Vanecia Harris	1/21/2016 TGB David Dodd and I met with the folks at Warren County. They have a clear understanding of what their plan should be.	
Washington County Communication Center		Delisa Johnson	3/16/2016 TGB Received and placed in CARA 3/15/2016 TGB Meeting with Delisa Johnson March 16th. 2/22/2016 TGB I spoke to Delisa this morning and she informed me that her sheriff and county manager were trying to work out the details. I asked her to find out if her positron cpe was geo-diverse.	
Watauga County E911	✓			
Beech Mountain		David Davis	2/19/2016 TGB I've asked the Chief if he could go ahead and send us his plan so we could begin looking at it.1/27/2016 TGB Chief stated he was waiting on some quotes before submitting.	

Boone Police Department 911			2/19/2016 TGB Plan submitted. Under Review	
Wayne County Central 911		Bryan Taylor		1/25/2016 letter, has am operational PSAP but doesn't meet proximty requirements, hired an architect to assist
Wilkes County Emergency Communications		Ricky Minton	2/22/2016 TGB David Carson stated they are attempting to get funding to relocate their primary PSAP so the now Primary would become the backup. If that doesn't happen they will need to reevaluate. He stated quite frankly he wasn't certain what we wanted. I sent him the documents that would aid in his plan and also told him if he needed assistance to let us know. 2/19/2016 TGB Asked both Ricky and David about their backup plan. Waiting for a response.	
Wilson County Emergency Communications	✓			

Yadkin County Sheriff's Office				
Yancey County E-911		Bill Davis	3/2/2016 TGB submitted hard copy plan. Have asked them to submit electronically. 2/19/2016 TGB Bill stated that Yancey and Madison would be backing one another up so he would submit his plan within a couple of weeks.Asked Bill about his plan. Waiting for a response.	
Total Backup Plans Approved			39	

Other Items

Next 911 Board Meeting and Work Session May 20, 2016
Charlotte Fire Department Headquarters
500 Dalton Ave.
Charlotte, NC

Adjourn

911 PSAP Funding Sub-Committee

Wednesday, April 27, 2016

1:30 pm

Emerald Isle Room

3514A Bush Street

Raleigh, NC

911 Funding Committee

Tuesday, May 3, 2016

1:30 pm

Banner Elk Room

3514A Bush Street

Raleigh, NC

911 Education Committee

Wednesday, May 4, 2016

1:30 pm

Banner Elk Room

3514A Bush Street

Raleigh, NC

911 Standards Committee

Wednesday, May 11, 2016

10:00 am

Banner Elk Room

3514A Bush Street

Raleigh, NC

NG911 Committee

Thursday, May 12, 2016

2:00 pm

Banner Elk Room

3514A Bush Street

Raleigh, NC

GIS Sub-Committee

Tuesday, May 24, 2016

10:00 am

Emerald Isle Room

3514A Bush Street

Raleigh, NC