NC 911 Board
FUNDING COMMITTEE AGENDA
February 20, 2020
Call Info: 877-402-9753 (8118223#)
1:00 p.m. – 3:00 p.m.

Tab	Topic Description	Presenter
1	Roll Call	Kristen Falco
2	Executive Director's Opening Remarks	Pokey Harris
3	Chair's Opening Remarks	David Bone
4	Approval January 2020 Minutes **(Vote Required)**	David Bone
5	Funding Reconsideration Pending: a. Boone PD b. Raleigh-Wake 911 Primary Approval Request: a. Scotland County Communications **(Vote required)** Secondary Approval Request: a. CMPD -Charlotte Fire **(Vote required)**	Marsha Tapler
6	Jacksonville PD Seat Count Request **(Vote Required)**	Tina Gardner
7	Estimated 3-Year Forecast-Service Charge Rate **(Vote Required)**	Marsha Tapler
8	Funding Model Talking Points	Pokey Harris
9	PSAP Status Update	Kristen Falco

10	Executive Director’s closing Remarks	Pokey Harris

Adjourn

ESTIMATED 3-Year Projection NC 911 Fund __Service Charge $0.65

FY2019-2020

Estimated Total Revenue Collection FY2020	**$95,288,871**
CMRS Cost Recovery	
CMRS Cost Recovery - Ending FY2019 Balance:	$7,558,951
Balance transfer-out to Statewide/PSAP Grant EOY FY2019	-$3,000,000
Adjusted Ending Balance Total:	$4,558,951
CMRS Cost Recovery Revenue thru January 31 2020	$4,101,372
Revenues estimated for February-Jun 2020	$1,094,535
Total	$5,195,907
CMRS Cost Recovery Budgeted FY2020:	$4,000,000
Expenditures:	
Incurred Expenses July-January 2020	-$1,169,599
Remaining expense budget amount for FY2020	-$2,830,401
CMRS Cost Recovery Ending Balance FY2021	$5,754,858
PSAP Distribution	
PSAP-Ending FY2019 Balance:	$23,677,269
Balance transfer-out to Statewide/PSAP Grant EOY FY2019	-$23,677,269
Adjusted Ending Balance FY2019 Total:	$0
PSAP Revenues received thru January 31 2020	$42,448,260
Revenues estimated for February-Jun 2020	$22,830,328
Total	$65,278,588
PSAP Distribution Budgeted FY2020:	$56,000,000
Expenditures:	
Incurred Expenses July-January 2020	-$29,796,072
Remaining budgeted amount for FY2020	-$26,203,928
PSAP End-of-Year Balance	$9,278,588
Administrative	
Administrative Ending FY2019 Balance:	$1,729,914
Admin Revenue Received thru January 31 2020	$470,198
Revenues estimated for February-Jun 2020	$241,665
Total	$711,864
Administrative Expenditures Budgeted FY2020:	$1,824,000
Expenditures:	
Admin Incurred Expenses July-January 2020	-$541,493
Remaining budgeted amount for FY2020	-$1,282,507

FY2020-2021

Estimated Total Revenue Collection FY2021	**$96,241,760**
CMRS Cost Recovery	
CMRS Cost Recovery - FY2020 Balance Forward:	$5,754,858
Balance transfer-out to Statewide/PSAP Grant EOY	$0
Adjusted Ending Balance Total:	$5,754,858
CMRS Cost Recovery Estimated Revenue FY2021	$938,357
Subtotal	$6,693,215
Expenditures:	
CMRS Cost Recovery Budgeted FY2021:	$4,000,000
CMRS Cost Recovery Estimated Ending Balance FY2021	$2,693,215
PSAP Distribution	
PSAP-Ending FY2020 Balance:	$9,278,588
Balance transfer-out to Statewide/PSAP Grant EOY FY2019	$0
Adjusted Ending Balance FY2019 Total:	$9,278,588
PSAP Estimated Revenue FY2021	$45,979,501
Subtotal	$55,258,089
Expenditures:	
PSAP Monthly Distribution Budgeted FY2021:	$50,890,287
PSAP Funding Reconsideration Budgeted FY2021:	$3,109,713
PSAP Estimated Ending Balance FY2021	$1,258,089
Administrative	
Administrative Ending FY2020 Balance:	$617,778
Admin Estimated Revenue 2.5% FY2021	$1,203,022
Total	$1,820,800
Expenditures:	
Administrative Expenditures Budgeted FY2021:	$1,674,251
Administrative Estimated Ending Balance FY2021	$146,549
Grant	
Grant Statewide/PSAP Balance Carry forward FY2020:	$12,625,289
Transfer-in PSAP Fund EOY	$0
Transfer-in CRMS Fund EOY	$0
Grant Statewide/PSAP Ending Balance	$12,625,289

FY2021-2022

Estimated Total Revenue Collection FY2022	**$96,241,760**
CMRS Cost Recovery	
CMRS Cost Recovery - Ending FY2021 Balance:	$2,693,215
Balance transfer-out to Statewide/PSAP Grant EOY	$0
Adjusted Ending Balance Total:	$2,693,215
CMRS Cost Recovery Estimated Revenue FY2022	$1,568,356
Subtotal	$4,261,571
Expenditures:	
CMRS Cost Recovery Budgeted FY2022:	$4,000,000
CMRS Cost Recovery Estimated Ending Balance FY2022	$261,571
PSAP Distribution	
PSAP-Ending FY2021 Balance:	$1,258,089
Balance transfer-out to Statewide/PSAP Grant EOY FY2019	
Adjusted Ending Balance FY2019 Total:	$1,258,089
PSAP Estimated Revenue FY2022	$50,710,168
Subtotal	$51,968,257
Expenditures:	
PSAP Monthly Distribution Budgeted FY2022:	$43,890,287
PSAP Funding Reconsideration Budgeted FY2022:	$3,109,713
PSAP Estimated Ending Balance FY2022	$4,968,257
Administrative	
Administrative Ending FY2021 Balance:	$146,549
Admin 3% Estimated Revenues FY2022	$1,616,863
Total	$1,763,411
Expenditures:	
Administrative Expenditures Budgeted FY2022:	$1,674,251
Administrative Estimated Ending Balance FY2022	$89,160
Grant	
Grant Statewide/PSAP Balance Carry forward FY2021:	$14,961,553
Transfer-in PSAP Fund EOY	$0
Transfer-in CRMS Fund EOY	$0
Grant Statewide/PSAP Ending Balance	$14,961,553

**Administrative Estimated use of ending balance:	-$1,112,136
Administrative Ending Balance FY2020	$617,778

Grant	
Grant Statewide/PSAP Ending FY2019 Fund Balance:	$23,038,415
Transfer-in PSAP Fund EOY FY2019	$23,677,269
Transfer-in CMRS Fund EOY FY2019	$3,000,000
Grant Statewide/PSAP Ending Balance	$49,715,684
Transfers out from Grant_Statewide/PSAP to other line items:	
NG 911 EOY FY2019	-$16,162,172
Sub-total	$33,553,512
Grant_ Statewide/PSAP Encumbered Amount	-$27,346,651
Grant_ Statewide/PSAP Adjusted Ending Balance	$6,206,861
Legislative Change August 21,2020:	
Grant_Statewide/PSAP Revenues received thru Jan. 31 2020	$1,331,485
Remaining Estimated Revenue Collection for FY2020	$5,086,944
	$6,418,429
Grant_ Statewide/PSAP Estimated End-of-Year Balance	$12,625,289

NG 911 Fund	
NG 911 - Ending FY2019 Fund Balance:	$44,749,222
Fund balance transfer-in Grant Fund EOY FY2019	$16,162,172
NG 911 Adjusted Balance:	$60,911,394
NG 911 Revenues received thru January 31 2020	$7,112,872
Revenues estimated for February-Jun 2020	$10,571,212
Total	$17,684,084
NG 911 Expenditures Budgeted FY2020:	$20,714,129
Expenditures:	
Incurred Expenses July-January 2020	-$1,469,326
Remaining expense budget amount for FY2020	-$19,244,803
NG 911 Transfer-out State Match Federal Grant:	-$875,863
NG 911 Estimated End-of-Year Balance	$57,005,486

Federal Grant Award	
Estimated Drawdown for fiscal year 2020:	$1,079,183
Expenditures:	
Federal Grant Diverse Routing	-$106,684
Federal Grant GIS	-$433,840
Federal Grant Cybersecurity	-$538,659

Grant_ Statewide/PSAP Awarded FY2020 Grants	-$12,100,000
Grant_ Statewide/PSAP Adjusted Ending Balance	$525,289
Grant_Statewide/PSAP Estimated Revenues	$14,436,264
Grant_ Statewide/PSAP Estimated FY2021 Ending Balance	$14,961,553

NG 911 Fund	
NG 911 - Ending FY2020 Fund Balance:	$57,005,486
Fund balance transfer-in Grant Fund	$0
Adjusted NG 911 - Ending FY2019 Fund Balance:	$57,005,486
NG 911 Estimated Revenues FY2021	$33,684,616
Expenditures:	
NG 911 Expenditures Budgeted FY2021:	$34,181,667
NG 911 Transfer-out State Match Federal Grant:	-$875,863
NG 911 Estimated FY2021 Ending Balance	$55,632,572

Federal Grant Award	
Estimated Drawdown for fiscal year 2021	$1,471,260
Expenditures:	
Federal Grant Diverse Routing	-$137,241
Federal Grant GIS	-$433,840
Federal Grant Cybersecurity	-$900,179
NC 911 State Match 40%	-$875,863
NG 911 Transfer-out State Match Federal Grant:	$875,863
Ending Balance FY2021	$0

Grant_ Statewide/PSAP Awarded FY2021 Grants	-$12,100,000
Grant_ Statewide/PSAP Adjusted Ending Balance	$2,861,553
Grant_Statewide/PSAP Estimated Revenues	$10,586,594
Grant_ Statewide/PSAP Estimated FY2022 Ending Balance	$13,448,147

NG 911 Fund	
NG 911 - Ending FY2021 Fund Balance:	$55,632,572
Fund balance transfer-in Grant Fund	$0
Adjusted NG 911 - Ending FY2019 Fund Balance:	$55,632,572
NG 911 Estimated Revenues FY2022	$31,759,781
Expenditures:	
NG 911 Expenditures Budgeted FY2022:	$35,587,317
NG 911 Transfer-out State Match Federal Grant:	-$875,863
NG 911 Estimated FY022 Ending Balance	$50,929,173

Federal Grant Award	
Estimated Drawdown for fiscal year 2022	$1,390,940
Expenditures:	
Federal Grant Diverse Routing	-$137,241
Federal Grant GIS	-$190,890
Federal Grant Cybersecurity	-$1,062,809
NC 911 State Match 40%	-$875,863
NG 911 Transfer-out State Match Federal Grant:	$875,863
Ending Balance FY2022	$0

NC 911 State Match 40%	-$875,863
NG 911 Transfer-out State Match Federal Grant:	$875,863
Ending Balance FY2020	$0

FY2022-2023		Comments
Estimated Total Revenue Collection FY2023	**$96,241,760**	
CMRS Cost Recovery		
CMRS Cost Recovery - Ending FY2022 Balance:	$261,571	
Balance transfer-out to Statewide/PSAP Grant EOY	$0	
Adjusted Ending Balance Total:	$261,571	
CMRS Cost Recovery Estimated Revenue FY2023	$4,597,228	
Subtotal	$4,858,799	
Expenditures:		
CMRS Cost Recovery Budgeted FY2023:	$4,000,000	
CMRS Cost Recovery Estimated Ending Balance FY2023	$858,799	
PSAP Distribution		
PSAP-Ending FY2022 Balance:	$4,968,257	
Balance transfer-out to Statewide/PSAP Grant EOY FY2019		
Adjusted Ending Balance FY2019 Total:	$4,968,257	
PSAP Estimated Revenue FY2023	$46,483,086	
Subtotal	$51,451,343	
Expenditures:		
PSAP Monthly Distribution Budgeted FY2023:	$43,890,287	
PSAP Funding Reconsideration Budgeted FY2023:	$3,109,713	
PSAP Estimated Ending Balance FY2023	$4,451,343	
Administrative		
Administrative Ending FY2022 Balance:	$89,160	
Admin 3.5% Estimated Revenues FY2023	$1,852,654	
Total	$1,941,814	
Expenditures:		
Administrative Expenditures Budgeted FY2023:	$1,674,251	
Administrative Estimated Ending Balance FY2021	$267,563	
Grant		
Grant Statewide/PSAP Balance Carry forward FY2022:	$13,448,147	
Transfer-in PSAP Fund EOY	$0	
Transfer-in CRMS Fund EOY	$0	
Grant Statewide/PSAP Ending Balance	$13,448,147	

Grant_ Statewide/PSAP Awarded FY2022 Grants	-$12,100,000
Grant_ Statewide/PSAP Adjusted Ending Balance	$1,348,147
Grant_Statewide/PSAP Estimated Revenues	$11,549,011
Grant_ Statewide/PSAP Estimated FY2023 Ending Balance	$12,897,158
NG 911 Fund	
NG 911 - Ending FY2023 Fund Balance:	$44,749,222
Fund balance transfer-in Grant Fund	$0
Adjusted NG 911 - Ending FY2019 Fund Balance:	$44,749,222
NG 911 Estimated Revenues FY2023	$31,759,781
Expenditures:	
NG 911 Expenditures Budgeted FY2023:	$34,976,378
NG 911 Estimated FY023 Ending Balance	$41,532,625

Highlighted Grey--confirmed numbers from BD701

	July-19	August-19	September-19	October-19	November-19	December-19	January-20	February-20	March-20	April-20	May-20	June-20
CMRS Revenue 29004000-435500118	640,474.96	624,531.55	610,275.75	544,846.45	524,639.06	583,723.66	572,880.09	576,816.09	129,429.64	129,429.64	129,429.64	129,430.00
PSAP 29005002-435500118	3,629,358.02	3,539,012.09	3,458,229.18	3,087,463.16	2,972,954.72	3,307,767.44	3,246,320.54	3,268,624.52	4,184,891.61	4,184,891.61	4,184,891.61	4,184,891.61
Wireline 29006001-435500118	651,001.04	763,761.15	879,875.62	635,037.11	591,475.12	595,066.30	651,442.82	686,109.69				
VoIP 29006002-435500118	456,928.78	1,779,813.51	1,089,001.59	958,352.07	1,001,973.89	975,367.60	962,702.90	1,127,868.59				
Prepaid Wireless 29006003-435500118	1,166,402.91	1,078,474.33	1,137,254.99	933,418.58	974,915.16	863,957.58	1,060,931.45	1,008,158.68				
NG 911 Fund 292061000-435500118	734,474.29	873,803.90	805,234.27	1,155,665.13	1,138,185.19	1,186,956.11	1,218,552.94	1,063,066.26	2,377,036.50	2,377,036.50	2,377,036.50	2,377,036.50
Admin 434160002	66,102.70	78,642.33	72,471.08	62,213.30	61,272.32	63,897.81	65,598.76	67,349.27	43,579.00	43,579.00	43,579.00	43,579.00
Grant Statewide/PSAP Receipts				327,438.46	322,485.81	336,304.24	345,256.65	332,871.29	1,188,518.25	1,188,518.25	1,188,518.25	1,188,518.25
Total (no interest)	7,344,742.70	8,738,038.86	8,052,342.48	7,704,434.26	7,587,901.27	7,913,040.74	8,123,686.15	8,130,864.39	7,923,455.00	7,923,455.00	7,923,455.00	7,923,455.36
NG911 Interest 292061000-433120	75,178.79	78,596.00	108,991.56	101,651.90	108,419.48	105,053.85	106,071.96					
CMRS Interest 29004000-433120	12,045.76	13,263.93	8,481.51	8,683.72	9,869.57	9,971.61	10,838.93					
PSAP Interest 29005002-433120	34,146.02	37,814.50	2,148.12	5,495.85	8,137.84	9,965.62	12,358.49					
Admin Interest 433120-290053500	2,784.74	2,862.46	2,906.93	2,687.02	2,771.85	2,633.61	2,592.62					
Grant Statewide/PSAP Interest	39,336.51	39,763.18	57,737.63	49,226.64	50,843.31	49,202.68	48,603.68					
Total Interest	163,491.82	172,300.07	180,265.75	167,745.13	180,042.05	176,827.37	180,465.68	0.00	0.00	0.00	0.00	0.00
BD701 Total w/Interest	7,508,234.52	8,910,338.93	8,232,608.23	7,872,179.39	7,767,943.32	8,089,868.11	8,304,151.83					
Interest allocation Workbook	7,508,234.52	8,910,338.93	8,232,608.23	7,872,179.39	7,767,943.32	8,089,868.11	8,304,151.83					
difference	-	-	-	-	-	-	-					
EXPENDITURES												
NG 911 Expenditures	-21,085.01	-687,515.79	-108,831.74	-27,680.92	-483,975.31	-86,813.29	-53,423.60	-4,354,147.29	-1,897,250.00	-850,000.00	-1,250,000.00	-1,795,000.00
CMRS Disbursements 29004000-Expenditures	-137,613.04	-500,809.07	-78,524.26	-89,750.24	-213,308.42	0.00	-149,594.37					
PSAP Disbursements -29005002 Expenditures	-4,353,456.68	-4,209,706.59	-4,394,082.08	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59	-4,209,706.59
Admin Expenses 290053500 Expenditures	-67,969.80	-87,325.84	**-68,813.18**	-87,915.27	-76,722.37	-77,680.59	-75,066.86	-77,737.84	-78,920.69	-77,322.69	-79,007.27	-77,241.84
Grant Statewide/PSAP Expenditures:	-415,482.99	767,766.82	-2,485,701.43	-761,468.07	-54,115.37	-490,124.52	-530,766.65					
Validated by BD701	-4,995,607.52	-4,717,590.47	-7,135,952.69	-5,176,521.09	-5,037,828.06	-4,864,324.99	-5,018,558.07					

Legislation:

HB217 Signed August 21, 2020

Revenues YTD	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	
	82,797,416.17	80,885,921.97	85,467,218.09	92,478,490.43	95,288,871.21	96,241,760	96,241,760	96,241,760	
						33,684,616	31,759,781	31,759,781	NG 911
						14,436,264	10,586,594	11,549,011	Grant
						1,203,022	1,616,862	1,852,654	Admin
						938,357	1,568,356	4,597,228	CMRS
						45,979,501	50,710,168	46,483,086	PSAP
						96,241,760	96,241,760	96,241,760	

Totals
5,195,906.53
43,249,296.11
5,453,768.85
8,352,008.93
8,223,513.68
17,684,084.09
711,863.58
6,418,429.45
95,288,871.21

Totals
683,963.54
73,155.03
110,066.44
19,239.23
334,713.63
1,221,137.87

Totals
-11,615,722.95
-1,169,599.40
-50,844,604.66
-931,724.23

North Carolina 911 Board

PSAP Name: Scotland County Emergency Communications
Contact Name: Mike Edge
Contact Address: 1403 West Blvd
City: Laurinburg, NC
Zip: 28352
Contact Email: medge@scotlandcounty.org

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 are due by Aug. 6, 2018.*** **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, 2019 Emergency Telephone System Fund Balance: $57,368.42

	FY2020 (2019-2020) Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2020 (2019-2020) Requested Increase Amount Recurring MONTHLY Cost	FY2020 (2019-2020) Requested Increase Amount Recurring ANNUAL Cost	Comments
Software Expenditures:				
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.	46,995.85			Radio Console Software
TOTAL	$46,995.85	$0.00	$0.00	
Hardware Expenditures:				
UPS				UPS Battery Replacement (50% eligible)

Radio Network Switching Equipment used exclusively for PSAP's Radio Dispatch Consoles (i.e.: CEB, IMC, NSS)				Network Switches & Interface Materials
Radio Console Dispatch Workstations	67,014.17			Radio Console, Installation, Test/Train
TOTAL	$67,014.17	$0.00	$0.00	

Remaining Fund Balance from worksheet.	**-$114,010.02**
List expenditures planned for payment against remaining fund balance.	
Total remaining Fund balance:	$0.00

Items below this cell are to be completed by 911 Board Staff	
APPROVED FY2020 FUNDING	$322,057.30
FY2019 Anticipated Capital Expenditures	$114,010.02
FY2019 Anticipated Monthly Recurring	$0.00
FY2019 Anticipated Annual Recurring	$0.00
Requested FY2020 Funding	$436,067.32
Maximum 20% carry forward amount:	61,667.61
10% carry forward is current policy for reconsiderations	$30,833.81

Staff recommendation is to approve reconsideration request of $114,010.02.

TEMPLATE

FY2020 Funding Reconsideration Worksheet:

PSAP Name: Scotland County 911

FY2019 Ending Fund Balance	$57,368.42
PSAP Funding Distribution for FY2020	$322,057.30
Approved Budgeted Operational for fiscal year.	$296,198.00
Approved Budgeted Capital for fiscal year.	$166,403.93
Fund balance before carry forward:	-$83,176.21
10% allowable carryforward:	$30,833.81
Total Remaining Fund Balance for Use:	-$114,010.02

If fund balance remains, apply funding reconsideration expenditure request against total to deter

Scotland County Department of Emergency Communications

1403 West Blvd, Laurinburg, NC 28352 | Phone: (910) 277-3231 | Fax: (910) 276-1043

December 20, 2019

Marsha Tapler, Financial Analyst
Office of Information Technology Systems
NC 911 Board
PO Box 17209
Raleigh, NC 27619-7209

NC 911 Funding Committee,

Scotland County Emergency Communications is requesting a reconsideration of funding in order to upgrade equipment on our replacement plan. There are two very specific reasons for this request.

To give some background, we have partnered with Verizon Wireless to build a new communications tower. In order to prevent us from losing the significant amount of funding that Verizon has put into this project, the deadline of March 01, 2020 must be met. Our county is replacing the 50 pair copper cable that has been prone to damage by lightning strikes with a fiber cable that runs from our communications room to the communications center.

The upgrade will not only put us in line with our backup center, Richmond County, which is using the Zetron Max Dispatch radio console but will also prevent us from needing to train our staff on two different radio systems.

Our radio vendor has informed us that our current radio consoles cannot run on the fiber system, so we would need to install the new radio console to connect to the new tower so the old tower can be removed. Only then would Verizon would be able to install their equipment by the March 01, 2020 deadline.

There is a great need in Scotland County for upgrades to remain operational while meeting industry standards. These upgrades would not be possible without the financial support of this board.

Thank you,

Mike Edge
Communications Director
Scotland County Emergency Communications

ACCOUNT BALANCE LIST

2020 FROM ACCOUNT: 216-1010-300.00-00 THRU ACCOUNT: 216-1010-999.99-99

ACCOUNT	DESCRIPTION	BUDGET	ACTUAL	BALANCE
216-1010-361.10-00	Interest Revenue			
216-1010-384.20-41	E911 Wireless	322,057.00		322,057.00
216-1010-399.10-00	Fund Balance Appropriated			
216-1010-421.28-85	Network Tech Assist/GIS	44,360.00	40,360.00	4,000.00
216-1010-421.31-30	Equipment-Repairs/Maint	59,838.00	15,835.37	44,002.63
216-1010-421.41-10	Telephone/Fax/Pagers	182,000.00	135.84	181,864.16
216-1010-421.44-20	In Service Training Trav	10,000.00	74.57	9,925.43
216-1010-421.47-10	Motor Fuels			
216-1010-421.49-10	Office Supplies			
216-1010-421.53-10	Equipment			
216-1010-421.68-30	Debt Reserve			
216-1010-421.74-10	Property under $5000.00			
216-1010-421.74-40	Property over $5000.00	166,404.00		166,404.00
216-1010-421.95-10	Interfund Transfers Out			
	TOTALS:	784,659.00	56,405.78	784,659.00

RADIO COMMUNICATIONS COMPANY

Zetron MAX Dispatch Console System

Revised
17 January 2020

RADIO COMMUNICATIONS COMPANY

8035 Chapel Hill Road
Cary, North Carolina 27513
P. O. Box 68, Cary, North Carolina 27512
(919) 467-2421 • Fax (919) 467-6548

17 January 2020

Mike Edge, Director
Scotland County E-911 Communications
1403 West Blvd.
Laurinburg, NC 28352

Radio Communications Company (RCC) is pleased to provide Scotland County (the County) this proposal for a new Zetron MAX Dispatch Console System.

We encourage the County to thoroughly examine our offer and consider its merits. Utilizing our years of experience in Critical Communications, RCC is prepared to work closely with the County to deliver a state of the art console system that meets and exceeds its expectations.

RCC is familiar with the situation that the County faces and is qualified to execute this project in partnership with the County. RCC has the experience, knowledge, trained technical staff, and references to confirm the company's excellent qualifications to execute this project professionally and on time.

Name of Provider:	Radio Communications Company
Contact Person:	Matthew Dean
Email address:	mdean@rccws.com
Address:	8035 Chapel Hill Road, Cary, NC 27513
Telephone Number:	919-467-2421
Fax Number:	919-467-6548

Please contact us with any questions or comments regarding this proposal. Thank you for the opportunity and we look forward to working with you in this important matter.

Matthew Dean

Radio Communications Company

RADIO COMMUNICATIONS COMPANY

8035 Chapel Hill Road
Cary, North Carolina 27513
P. O. Box 68, Cary, North Carolina 27512
(919) 467-2421 • Fax (919) 467-6548

Zetron MAX Dispatch Console Solution

Radio Communications Company is pleased to provide Scotland County this proposal for a Zetron MAX Dispatch console solution with related radio equipment. This proposal is based on a site visit and discussion with County personnel for the known system requirements.

Radio Communications Company (RCC), founded in 1959, has been providing quality two-way communications products and systems from our present location in Cary, North Carolina for over 59 years. RCC has a long history of providing and supporting critical communications systems for government and private radio users. RCC is staffed with experienced and factory trained professionals available for sales consulting, engineering, installation, and service from its fully equipped and staffed service facility.

From its 8,500 sq. ft. facility near the Research Triangle Park and an office in Asheville, North Carolina, RCC is focused on selling, installing, and servicing products and systems that communicate voice and data over local and wide area networks for public safety, public service, and business users. Behind a core team of highly qualified and motivated professionals, RCC delivers value and service to its clients by providing cost effective and reliable solutions. RCC maintains a broad supplier base in order to best select the appropriate solution for the client based on their particular needs. RCC participates in supplier training, seminars, and certification programs to maintain an up to date understanding of products and market trends. RCC is a turnkey operation, offering its clients the full complement of services including product sales, design engineering, installation, repair, and maintenance agreements tailored to meet each client's particular requirements. We have qualified technicians on call 24 x 7 x 365 in support of these agreements.

As a full-service sales and service/engineering firm that provides turnkey communications solutions, our offerings include:

- Radio dispatch and E911 console solutions.
- Radio system infrastructure – a single site to statewide; consultation, design, installation and maintenance.
- Portable and Mobile radios, from a variety of manufacturers to meet your needs and budget.
- New technology migrations.
- Multicast and Simulcast systems.
- RF Coverage modeling.

- Interoperability solutions.
- Mobile radio and emergency equipment installation, on-site or in-house.
- Customizable service agreements tailored to the customer's needs.

RCC's continued success in North Carolina is directly related to its excellent relationships with its customers. We have a number of radio dispatch references, all of which confirm RCC's track record of delivering complex communication systems competently to demanding communications end users, and then providing quality post sale maintenance and support. Below are a few specifically related to Zetron MAX Dispatch systems. We encourage you to contact our references.

County of Richmond
Donna Wright – 910-997-8238

As part of Richmond County's new Emergency Services building project, RCC won a competitive process in 2018 to provide the County a new **Zetron MAX Dispatch** system that includes twelve (12) operator positions and numerous conventional and Viper control station interfaces. The system was installed and brought online on schedule for the new facility's opening. The County also contracted with RCC for additional solutions at the new center.

County of Moore
Bryan Phillips – 910-947-6500

RCC has worked with the County of Moore for over 15 years, and has sold, engineered, installed and maintained the countywide public safety radio system and 911 Center consoles. When Moore County built their new Public Safety building, RCC was selected to provide and install their new 10 positon Zetron 911 MAX Call Taking and **Zetron MAX Dispatch** System, as well as the multi-hop licensed broad band microwave radio system to link the Center with their main tower and 2 other RF sites. As part of the project, RCC developed a new paging software system tailored to the County's unique paging requirements. Following the Go Live, RCC completed installation of a new three (3) site, two channel simulcast UHF system for Fire and EMS paging. RCC has been providing ongoing 24/7/365 system service and maintenance.
Moore County contracted with RCC in June of 2017 to provide and install a Zetron MAX Call Taking and MAX Radio Dispatch System for their backup location. It comprises 6 positions, a new logging recorder, GPS Net Clock, custom paging system, and control station equipment. A fiber connection between its main and backup center allows the two centers to share resources.

County of Anson
Holli Mullis – 704-694-4972

RCC has worked closely with Anson 911 officials since 2009 to provide a seamless VOIP Zetron Model 3200 Call Taking System Upgrade that included a stand-alone ALI Database System, and a new IP Telex Radio Dispatch Console system interfaced to control base stations and other county system equipment. In early 2014 RCC was contracted to provide and install a new 9 position Zetron MAX Call Taking and **MAX Dispatch** System for their new 911 Center. The system went live September 30, 2014. RCC has been providing ongoing 24/7/365 system service.

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Zetron MAX Dispatch Overview

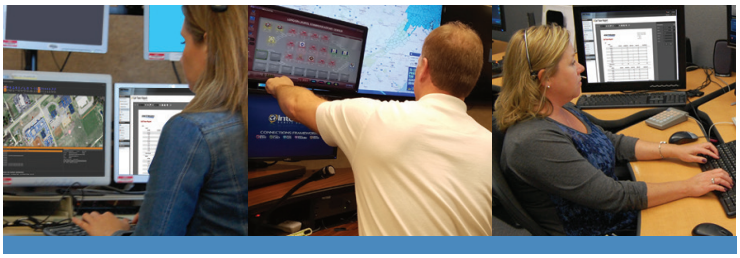
Radio Communications Company is pleased to provide Scotland County the industry-leading Zetron MAX Dispatch Radio Dispatch Console system solution.

A leader in the communications system market for 39 years, Zetron has been designing, developing, manufacturing and implementing mission-critical communications solutions for public safety, transportation, utilities, manufacturing, healthcare and business applications throughout the world. Zetron has installed thousands of systems and deployed over 20,000 console operator positions worldwide. The scope and success of these projects demonstrate the performance, effectiveness, robustness, and reliability of Zetron's products.

Zetron's MAX Dispatch system is a pure, end-to-end, IP-based telecommunications console system designed for mission-critical dispatch applications. Because MAX Dispatch employs the latest, standards-based IP protocols and IT best practices, it offers the highest levels of interoperability, scalability and usability. It is designed to streamline the console operator's job and help them focus on the incident or task at hand. It is also designed to meet the needs of the full range of other personnel who interact with the system, including administrators, supervisors, and radio and IT technicians.

Control-room functions and operations are evolving along with the increasing availability of multiple data sources to the dispatcher. The MAX Dispatch system's hardware and software foundation is designed to adapt to this rapidly changing environment. It provides an easy path to move forward—whether you want to add positions and interfaces to a system, share resources across multiple systems, increase mobility options for staff, or ensure that your control room can interface to both legacy and emerging technologies.

Please see the following pages for additional information on the MAX Dispatch system.



MAX Dispatch System

Maximize Your Control

ZETRON®

Improving Your Operations, Preparing You for the Future

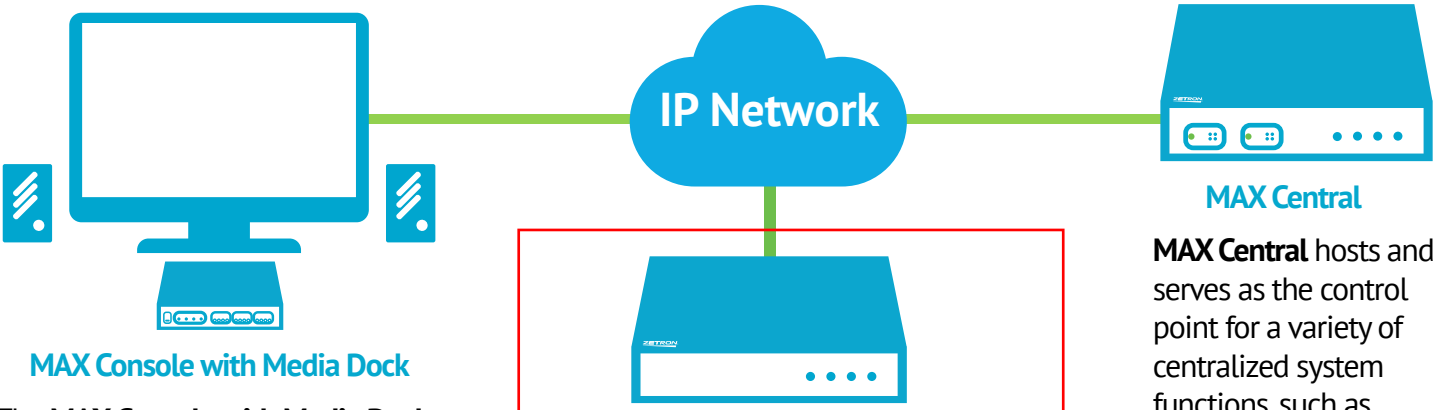
There's a lot riding on your dispatch system. That's why we've designed MAX Dispatch to be one of the most effective tools available for managing a range of operations—from routine to mission-critical. It links those who need services with those who provide them. It connects the control center with staff in the field and field staff with each other. It coordinates operations that span departments, agencies, or geographic regions. And it gets your critical messages through, even when other communication modes can't.

What Is MAX Dispatch?

Zetron's IP-based MAX Dispatch integrates a full range of tools and resources into a single console system and presents them to the dispatcher through a streamlined graphical user interface (GUI). This gives your dispatchers instant access to the information they need from a single, centralized point. MAX Dispatch can be set up to display information pertinent to an incident only when it's needed. Its IP functionality not only eliminates the need for costly leased lines, but supports mobile, remote, and geographically diverse operations.

How MAX Dispatch Works

Three basic components—the **MAX Console with Media Dock**, the **MAX Gateway**, and **MAX Central**—form the building blocks of each MAX Dispatch system. The size and capabilities of your system will determine how many of each of the three basic components your system will require. The flexibility and simplicity of the MAX Dispatch architecture allows you to easily scale your system up or down to accommodate changes in your organization.



MAX Console with Media Dock

The **MAX Console with Media Dock** is the point through which the dispatcher interacts with the MAX Dispatch system.

MAX Radio Gateway

The **MAX Gateways** serve as the interface point between a radio, base station or radio system and the rest of the MAX Dispatch system. These allow MAX to be ready for whatever the market demands.

MAX Central

MAX Central hosts and serves as the control point for a variety of centralized system functions, such as voice-logging services and administrative telephone lines.

Why MAX Dispatch?

A streamlined UI that improves response times and efficiency. The clean design of the MAX Dispatch user interface (UI) reduces screen clutter, operational steps, and response times. It gives dispatchers instant access to information pertinent to the task at hand. And it's easy for dispatchers to grasp—trainers report that it takes about 30 minutes to learn. This reduces training time and costs. Plus, MAX Dispatch is highly configurable, allowing you to create screen layouts that meet the unique needs of your dispatch center.

Redundancy you can rely on. Because MAX Dispatch supports network redundancy for every end point, it can tolerate any single point of failure in the IP network with no loss of service. This keeps your vital operations up and running, even if a fault condition occurs.

Low-cost expansion, upgrades, and maintenance. MAX Dispatch is built to not only support your current operations, but to adapt as your operations change over time. You can easily add channels and consoles to MAX Dispatch. The system hardware and software architecture also provides an easy upgrade path that keeps your technology current without the need for a large-scale system overhaul. Plus, it can be configured and maintained remotely. This keeps your costs low and ensures that changes and updates can be made quickly.

High interoperability. Its compatibility with all major radio interfaces and major radio manufacturers' equipment makes MAX Dispatch one of the most interoperable systems available. This is critically important when you have to manage events across departments or jurisdictions.

Resource sharing and backup across geo-diverse locations. MAX Dispatch can be used with the MAX Geo-diverse Portal to link and share resources across geographically distributed locations. This maximizes the efficient use of resources, reduces costs, and allows systems at different sites to back each other up—with just the click of a mouse.

Dispatch from anywhere. Because MAX Dispatch can be operated over a laptop or tablet, it gives you the flexibility to deploy remote, temporary, backup, or mobile operations quickly and securely. And delivers all of the features, functionality, and interoperability available in the control room.

MAX Dispatch is future ready. Its design is well suited for anywhere the market moves.

Why Zetron?

Zetron Services and Support

Your MAX Dispatch system comes with a standard 12-month hardware warranty, 12-month software warranty, operator web training, and exclusive membership into the Zetron MAX Users Group (ZMUG). Zetron also offers a range of optional support services to ensure that your system is installed and configured to run optimally. These services include: 24/7 telephone support, software maintenance, hardware replacement and repair, remote and on-site configuration assistance, system re-optimization, and technical and operational training. Many of these options are available as standalone services. For more information, see Services at www.zetron.com.

Help with Financing

Looking for alternate ways to fund your new dispatch system? Zetron is partnering with a leader in public finance to offer tax-exempt financing to help public-safety agencies purchase new equipment. The program not only applies to a full range of public-safety products, but can be "bundled" to include installation and dispatch furniture as well as other equipment.

Performance You Can Count On

Zetron has a reputation for the reliability and robustness of its products. They are specifically designed to meet the needs of mission-critical operations that must stay up and running 24/7. Zetron solutions are also known for their longevity. Not only do they continue to deliver a rock-solid performance over time, but they have the flexibility to keep pace with emerging technologies and changing operational requirements.

About Zetron

Founded in 1980, Zetron manufactures and provides communications systems designed to equip the entire mission-critical control room. Its integrated solutions include IP-based dispatch, NG9-1-1 call-taking, voice logging, IP fire station alerting, CAD, mapping, and automatic vehicle location (AVL) systems. Zetron has offices in the United States, the United Kingdom, Australia, and numerous field locations; and a worldwide network of resellers, system integrators and distributors. Zetron is a wholly owned subsidiary of JVCKenwood Corporation. For more information, visit www.zetron.com.

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The Power to Respond

See Zetron price list for option pricing.
Specifications subject to change without notice.

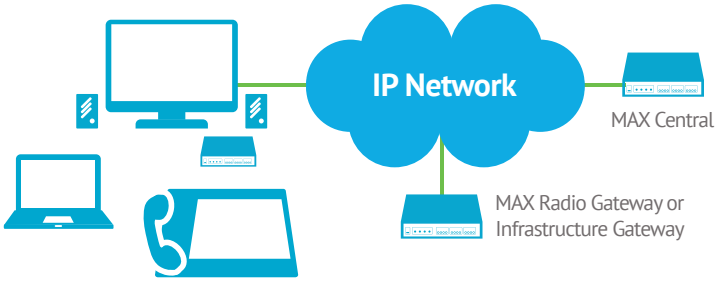
005-1431E May 2018

MAX Dispatch

Zetron's IP-based MAX Dispatch console system is designed to meet the varying needs of the dispatch community while providing a low cost of ownership to the customer. Whether it is expanding the positions and interfaces of one system, sharing resources across multiple systems, increasing mobility options for staff or ensuring your control room can interface to legacy and emerging technologies, the MAX Dispatch radio dispatch console provides the customer an easy path on which to move forward.

Features

- **Simpler Operation, Lower Training Cost:** The user interface is designed to focus attention on the incident by reducing screen clutter, improving response times, and therefore reducing user stress. MAX Dispatch requires minimal training and fewer steps to perform tasks and access information.
- **Three workstations** supports standard PC with Media Dock, laptop version, and CommandIQ complete desktop station.
- **Map-based dispatching:** Available for systems that support location services.
- **High reliability:** End-to-end network redundancy keeps the system up and running even if the IP network goes down.
- **Minimize Maintenance Time and Cost:** Configure, troubleshoot and maintain the system from the convenience of the office.
- **Scalable Operations:** The architecture provides scalability for system designs ranging from dedicated LAN network to multi-node, geographically diverse WAN applications.
- Support for PTToC applications.



MAX Dispatch Standard Console w/ Media Dock:

The MAX Dispatch console is the system element that provides the critical user interface to dispatchers. Each console consists of a Windows®-based client running the MAX Dispatch application software and the optional Media Dock. The console PC is equipped with two, full-duplex Ethernet ports for full network redundancy. If your system has a Media Dock it provides additional audio interfaces and connection points for accessories.

Media Dock Interfaces Support:

- Up to eight speakers.
- Desktop microphone.
- 4-wire or 6-wire headset jackbox.
- PTT and monitor footswitches.
- Four local binary inputs and output that can be used for workstation status.
- Four local relay contact closure outputs.

MAX Dispatch Laptop WorkStation:

The MAX Dispatch Laptop provides the same critical user interface on a Laptop computer running Windows 7 or 10. The application uses the internal speakers and microphone of the laptop. With the laptop you retain full access to your radio, telephone, aux I/O, and paging networks.

CommandIQ for MAX Dispatch

The CommandIQ workstation is a compact, fully functional hardware console option for MAX Dispatch with an embedded PC, internal speaker and microphone, 10.1" touchscreen display, handset, and supports external accessories (e.g., additional speakers, headsets, microphones, footswitches, etc.). It's efficient 15" X 10" x 4.5" footprint saves space on desks, enables it to be stored easily, and is configured to easily wall mount. The CommandIQ workstation provides mobility, flexibility, and adaptability to meet any command center, office, or field work environment while maintaining full access to radio, telephone, auxiliary I/O, and paging networks.

MAX Radio Gateway:

The Radio Gateway serves as the interface point between a radio or base station and the rest of the MAX system. Radio Gateways are available in both analog and digital forms depending on the radio interface requirement.

Supported Features:

- Analog gateways support up to two radio connections.
- Digital gateway supports Ethernet connection to digital base station infrastructure.
- Dual Ethernet ports for network redundancy.
- Analog voice logger output.
- Four binary inputs and outputs for generic site monitoring and control use (analog gateways only). Relay closures available via optional Zetron Model 6080.

Supported Radio Interfaces (Inquire for additional radios supported):

- 2-wire, 4-wire local (PTT/COR).
- Tone Remote Control (per TIA102.BAHA Section 7).
- Analog/conventional radios: Kenwood TK-x180, Motorola XTL 5000 (O5), Harris M7300/XG75, & XG100.
- P25 conventional/trunking radios: Kenwood TK-5x10, Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), Motorola Quantar with DIU-3000 (conventional only), Harris M7300/XG75 & XG100., Viking VM5000.
- Smartnet/SMARTZONE radios: Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), EFJ VM400/600/900.
- EDACS radios: Harris M7300/XG75 & XG100.
- P25 Digital Fixed Station Interface (DFSI) per TIA102.BAHA.
- Kenwood NEXEDGE radios: NX-700/800/900, NX-720/820
- Kenwood NEXEDGE NXR-700/800 Conventional and Trunking Repeaters.
- DMR AIS Tier II and Tier III, Hytera, Tait and JVCKenwood
- MotoTRBO

MAX Infrastructure Gateway (IG):

The IG serves as the interface point between the radio system and the rest of the MAX system. It is server-based and supports both CSSI and DMR Tier III.

Supported Features

- Unit ID Display
- Talkgroup selection
- Group calls (inbound/outbound)
- Inbound emergency group call
- Individual calls (inbound/outbound)
- Inbound emergency alert
- Inbound call alert
- Encryption (non-FIPS, not to console position)
- Manual encryption key load
- KVL encryption key load support
- Static talkpath to talkgroup mapping through console system acceptable
- Long term voice logging support for voice
- Long Term Logging support for Group call source id
- Patching of talkgroups by operator
- Console behavior same as with current radio interfaces providing consistent visual indications for transmit, receive, audio routing, call state
- Console Pre-emption of inbound calls

MAX Central:

The Central is the hardware platform that hosts several software services used in the MAX Dispatch system. These software services provide essential management and control to the system as well as act as a gateway to various third party devices for additional functionality such as telephony gateways, IP voice loggers, MODBUS IP auxiliary I/O devices and Location Services (AVL). It also hosts the service that provides remote console, remote radio gateway and multiple MAX Dispatch site linkage.

Supported Features:

- Dual network connections
- Dual power connections
- Hot standby capability for Z-Node Manager, Telephony Gateway, Portal services and Location Gateway service.
- Long term IP voice loggers supported: Eventide, Exacom, Stancil, CVDS, REVCORD, Higher Ground, NICE, Verint, DSS Corporation.

Specifications:

Hardware

Dimensions (HxWxD)

Media Dock XS:	2.5 x 7.5 x 10 in. (64 x 192 x 254mm)
Central:	1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)
Radio Gateway:	1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)

Weight

Media Dock XS:	2.6 lbs (1.2 kg)
Central:	2.5 lbs (1.13 kg)
Radio Gateway:	2 lbs (0.91 kg)

Operating Temperature

Media Dock XS:	0 to 60 ° C
Central:	0 to 50 ° C
Radio Gateway:	0 to 50 ° C

Maximum Power Draw

Media Dock XS:	3W, 200mA (no speakers), 21W (with speakers)
Central:	1.8A @ 10.5 VDC
Radio Gateway:	1A @ 10.5 VDC

Network

Radio Gateway

Payload (per radio):	168 kbps active. Less than 5kbps idle.

Console Workstation

Payload:	84 kbps maximum for each active audio stream (Tx or Rx). N*84 kbps for simultaneous Tx on N channels.
Packet Loss:	< 0.1% (< 1% for non-mission critical).
Packet Delay:	< 40 ms for LAN environments; up to 2 seconds for longhaul (long delay) environments.
Packet Jitter:	< 20 ms (< 40 ms for-non mission critical).
Network Infrastructure:	100 Mbps minimum, full-duplex Ethernet. Switches and routers must be multicast aware. Mission-critical applications should use a dedicated network.

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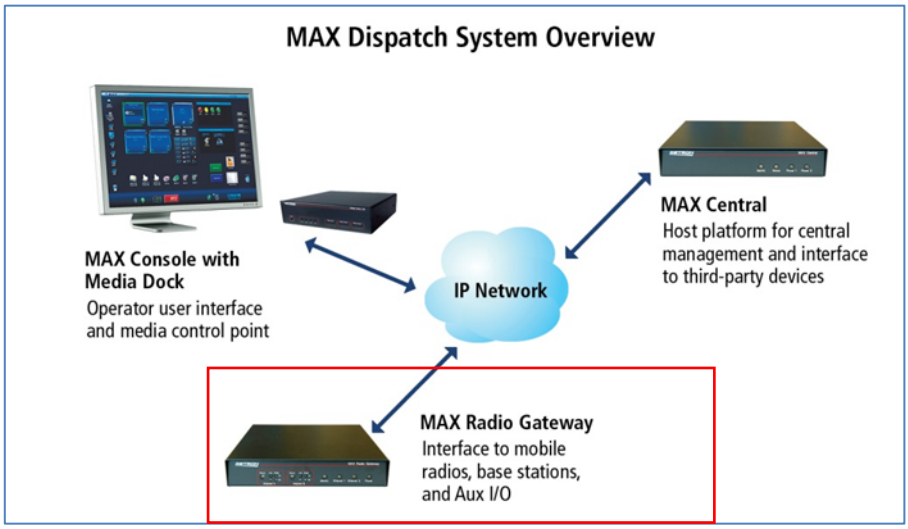
The Power to Respond

See Zetron price list for option pricing.
Specifications subject to change without notice.

005-1401M December 2018

Zetron MAX Dispatch

Zetron's MAX Dispatch system is a pure, end-to-end, IP-based telecommunications console system designed for mission-critical dispatch applications. Because MAX Dispatch employs the latest, standards-based IP protocols and IT best practices, it offers the highest levels of interoperability, scalability and usability. It is designed to streamline the console operator's job and help them focus on the incident or task at hand. It is also designed to meet the needs of the full range of other personnel who interact with the system, including administrators, supervisors, and radio and IT technicians.



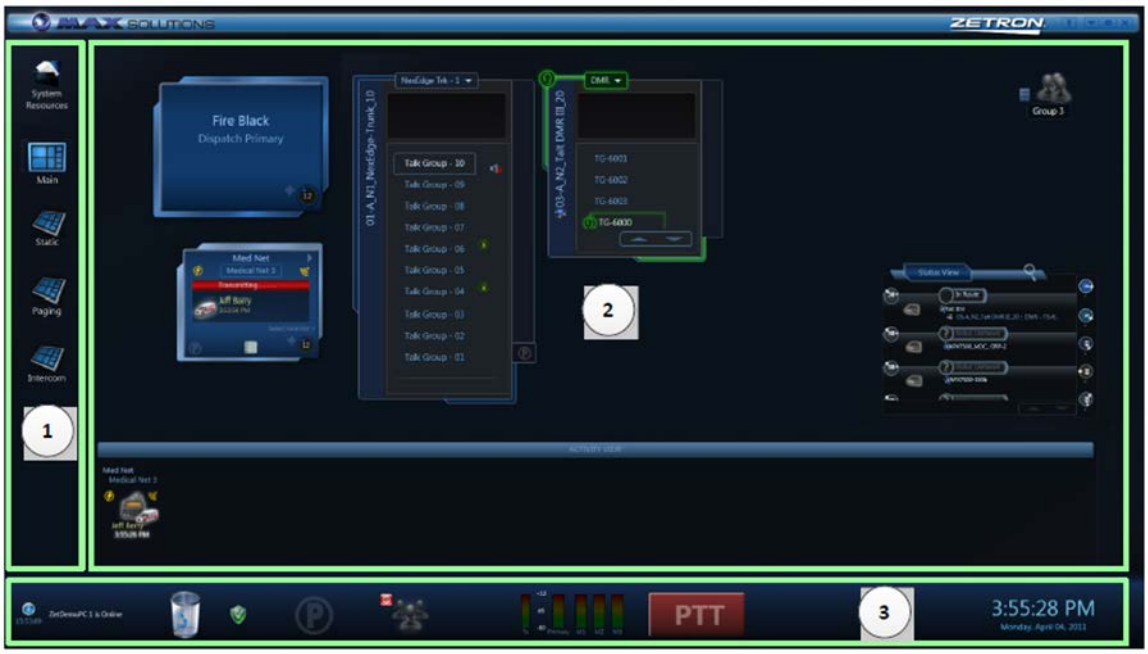
The core of MAX Dispatch system is its use of commercial-off-the-shelf (COTS), Internet Protocol (IP), network equipment. Based on Voice-over-Internet-Protocol (VoIP) technology, MAX Dispatch can be deployed on a dedicated or shared IP network for the most cost effective and flexible system available on the market today. Using the IP infrastructure and Zetron's engineered hardware and software, the system provides scalability to a large number of system elements in order to address very modest systems to large state wide networks. The MAX Dispatch system allows a variety of radio types to be easily included in the network without changes to the control or display software in addition to providing self-healing protocols and optional end-to-end redundancy and hot standby. The system drawing below depicts this architecture in a simplified diagram.

Control-room functions and operations are evolving along with the increasing availability of multiple data sources to the dispatcher. The MAX Dispatch system's hardware and software foundation is designed to adapt to this rapidly changing environment. It provides an easy path to move forward—whether you want to add positions and interfaces to a system, share resources across multiple systems, increase mobility options for staff, or ensure that your control room can interface to both legacy and emerging technologies.

Functionality

MAX Dispatch's state-of-the-art graphical user interface (UI) is specifically designed to accomplish the most frequent tasks with minimal effort. The UI offers a contact-based approach rather than simply a traditional path-based approach. For example, the dispatcher can identify who they wish to communicate with rather than worry about which radio or phone resource to use to contact them. MAX not only raises the bar on visual interfaces via its modern UI, but it also provides the best-in-class audio interfaces designed for rugged, ergonomic 24x7 operations.

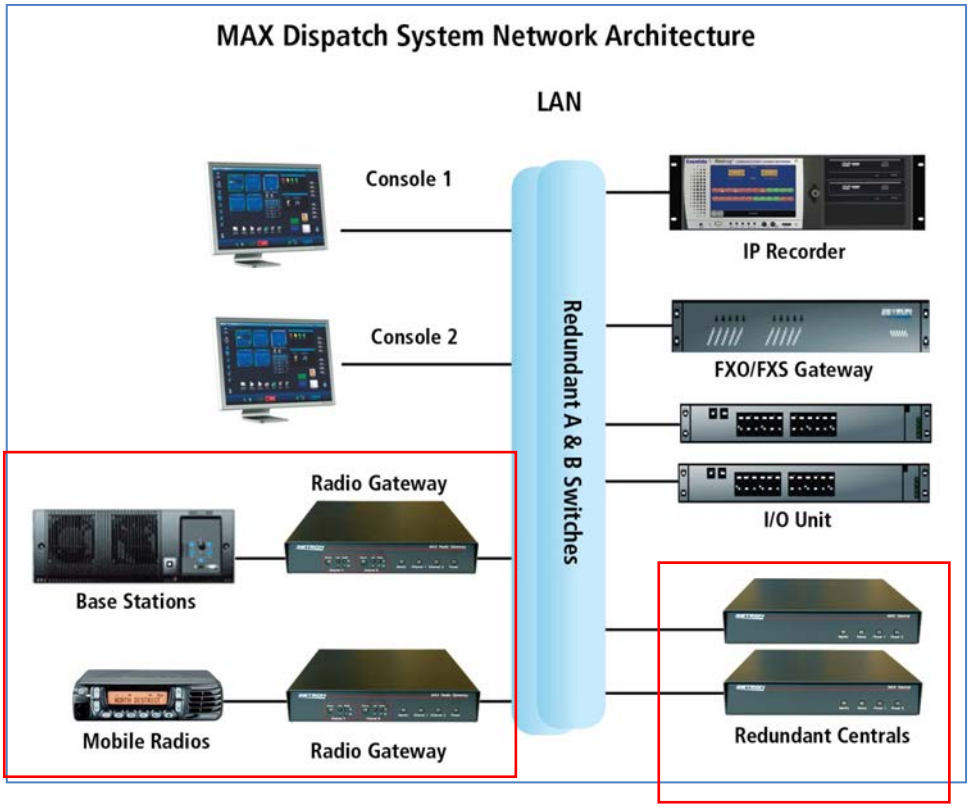
Highly configurable features in the MAX Dispatch UI enable each work site or even each individual position to be tailored for a wide variety of work-flow applications and user preferences.
A Layout contains a customizable and configurable selection of tools, widgets, controls, workspaces, views, and other user interface elements for MAX Dispatch. The following example layout shows the three major areas used during typical operation of a MAX Dispatch Console. Because MAX Dispatch is extremely configurable, each system may be arranged differently.



1. Side Bar - There can be up to four Side Bars, one at each edge of the screen. If there is a Side Bar enabled at the bottom, it resides just above the Notification Bar (3). The Side Bar contains items that always remain on the screen regardless of which Workspace View is being used.
2. Workspace View - This displays the currently active workspace, an area containing the controls and resources you are currently working with. The layout can be configured with multiple Workspaces, e.g. dedicated to specific areas of responsibility or operational situations.
3. Notification Bar - This displays commonly used information, status, and controls.

MAX Dispatch's innovative user interface (UI) reduces screen clutter, response times, and user stress. Its blend of unique and traditional console element results in an easy-to-use UI that requires minimal training and fewer steps to perform tasks and access information. Its flexibility also allows you to create screen layouts that match the unique needs of your dispatch center. Unique one-click operations and intuitive UI give operators immediate access to information and controls. This improves response times and reduces operator fatigue and errors.
MAX Dispatch supports patching and conferencing among multiple resources.
Support for off-site access allows MAX Dispatch to be maintained and operated remotely. This facilitates appropriate staffing as well as the timely diagnosis and resolution of system issues.
The dual end-to-end network option allows fully redundant IP networks. This ensures that a single failure in the network infrastructure has no effect on MAX Dispatch operation for all endpoints.

MAX Dispatch is scalable from a single LAN configuration to a multi-node, geographically diverse WAN configuration.


MAX Dispatch System Network Architecture
LAN
Console 1
Console 2
Redundant A & B Switches
IP Recorder
FXO/FXS Gateway
I/O Unit
Redundant Centrals
Radio Gateway
Base Stations
Mobile Radios
Radio Gateway

System Overview

The MAX Dispatch System comprises four key elements working together over an IP network. The MAX Console is the dispatcher's graphical user interface for all system control points. The Media Dock is a sub-element of the MAX Console and provides the audio interface and connection point for operator workstation peripherals such as a footswitch or desktop microphone. The MAX Central is a hardware platform that hosts several key applications that are important to the MAX Dispatch system. The Radio Gateway provides the interfaces to control station radios.

MAX Dispatch is the only IP-based dispatch system that supports network redundancy for every end-point. This allows MAX Dispatch to tolerate any single failure in the IP network infrastructure with no loss of service. Because MAX Dispatch is IP based, it can be geographically dispersed over a wide area. It can also give dispatchers at multiple locations access to each other's radio resources.

A basic MAX Dispatch system consists of:

- A Windows-based workstation with a MAX Dispatch software
- Media Dock XS for audio routing and connection to peripheral devices.
- Radio gateways that serve as interface devices to mobile radios, base stations and auxiliary controls.
- A Central platform that serves as a host for system management software and as an interface point to third-party devices.

System Components

MAX Console

The MAX Dispatch console is the system element that provides the critical user interface to dispatchers. Each console consists of a Windows based client running the MAX Dispatch, Graphic User Interface (GUI) software as well as controlling critical audio functions in conjunction with the Media Dock. The Media Dock provides the audio interface and connection point for accessories such as microphone, speakers, handset, headset, and PTT foot switch. The console PC is equipped with two full-duplex Ethernet ports for connecting into a redundant IP network using NIC bonding.

MAX Dispatch's user interface introduces new concepts to the dispatcher to reduce stress, screen clutter and response time. These unique elements are combined with the familiar concepts of traditional dispatch consoles resulting in an intuitive user interface that requires minimal training time. It offers the flexibility to create user layouts that match the needs of the dispatch center.

The dispatchers work in a "workspace" screen concept where there may be multiple workspaces that perform different functions. Screen and button templates are used to select the general layouts with flexibility for additional modifications as required. Also, the screens can be dynamic or locked down by administrators. Dispatchers can select from the following screen features:

- Configurable on a per Z-Node, per workstation, and per user basis
- Move channels around the workspace
- Resize objects as needed
- Add or remove channels
- Dynamic drag and drop capabilities
- Group channels together to manage them as a single incident
- An activity view for interacting with active items

Media Dock XS

The Media Dock XS serves as the primary audio routing device for the console position. This arrangement provides for a highly flexible setup to support up to four independent speakers, up to two dual-pronged headset jack boxes, a desktop microphone, and a foot switch. Eight speakers are supported at a console by adding a second media dock. The Media Dock XS also has connection capabilities for adding local auxiliary I/O function to each console position. There are

a total of 4 inputs and 4 outputs available on each device. The console software routes and controls all audio through the use of display screens and the Media Dock XS. The console receives VoIP packets, de-packetizes, and sends the digital audio signals via a USB port connection to the Media Dock XS. It receives the digital USB audio signals, uses a powerful digital signal processor (DSP) to convert it back into analogue signals and sends it to one of the audio devices such as a headset for the dispatcher or a designated speaker. It also works in reverse for outgoing audio, using the DSP to process the audio signals from a microphone and sending them via the USB port to the console. This Media Dock XS arrangement allows headset side tones, TRHI, microphones, and four speakers to be independently connected to various channels via console setup controls.

MAX Radio Gateway

The Radio Gateway serves as the interface point between a radio or base station and the rest of the MAX system. The Radio Gateway supports both analog and digital radios, including P25 radios. It converts the radio specific messaging into MAX messaging for use throughout the internal system. Each Radio Gateway may interface up to two radios and also has two independent Ethernet ports available to accommodate full MAX network redundancy. The Radio Gateway interfaces to a wide range of conventional and trunked protocols, both manufacturer proprietary and open standard, all of which can coexist on a single MAX Dispatch system. The Radio Gateway is also equipped with physical I/O's to provide system-wide, auxiliary I/O functions that can be used for monitoring site alarms and controlling site devices such as generators. The functions of the Radio Gateway include:

- Operation for up to two radio channels simultaneously with four inputs and four outputs of AUX I/O per unit.
- Harmonization of various fixed station interfaces with MAX internal protocols.
- Controlling the operating frequency of the attached fixed station.
- Controlling various features of the attached fixed station. (e.g. CTCSS, talk-group control)
- Signal processing capabilities to support in-band tone signaling, vocoding, mixing, and encryption.
- Supports patching and conferencing among multiple resources.
- Able to interface to several analog and digital radio types.

MAX Central

MAX Central is a centralized hardware platform that hosts several services that are critical to the MAX Dispatch system. If a specific system has multiple, geographically disparate sites, MAX Central acts as the communication portal among them. In addition, the MAX Central provides the interface to other console system essentials, such as SIP telephony gateways, third-party IP voice loggers, auxiliary I/O devices, Location Gateway Service, AVL Service, and CAD Gateway Service. A minimum of one MAX Central device is required at each site. Adding a second MAX Central at each site provides redundancy for the core functions of the MAX Dispatch system.

MAX Dispatch System Summary

Zetron has been designing and delivering communications systems for mission-critical control rooms and communication centers worldwide since 1980. Zetron is the dispatch industry premier supplier and prides itself for consistently providing customers best-in-class console systems. MAX Dispatch offers the following features and functionality:

- The system's intelligent user interface (UI) selectively displays important information so operators can focus on the incident at hand without the distraction of unnecessary information.
- Unique one-click operations and intuitive UI give operators immediate access to information and controls. This improves response times and reduces operator fatigue and errors.
- Support for off-site access allows MAX Dispatch to be maintained and operated remotely. This facilitates appropriate staffing as well as the timely diagnosis and resolution of system issues.
- The system's analog and digital radio gateways interface to a wide range of conventional and trunked protocols, both manufacturer proprietary and open standard, all of which can reside on a single system.
- MAX Dispatch is scalable from a single LAN configuration to a multi-node, geographically diverse WAN configuration.
- The use of standards-based IP protocols ensures the system's compatibility with commercial, off-the-shelf (COTS) IP network devices.

RADIO COMMUNICATIONS COMPANY

8035 Chapel Hill Road
Cary, North Carolina 27513
P. O. Box 68, Cary, North Carolina 27512
(919) 467-2421 • Fax (919) 467-6548

Hardware and Services Summary

The following items are included in the hardware/equipment and services that RCC will provide Scotland County for the Zetron MAX Dispatch radio console system.

Equipment and Software

Five (5) MAX Pro workstation positions, each including:

- Workstation PC with the following Software Licenses
  - MAX Base Software
  - Individual Call
  - Tone Signaling/Paging
  - Telephony
  - Event Replay
  - Aux I/O Control Feature Set
- Media Dock
- Two (2) Speakers
- Two (2) Dual Prong Headset Jackbox with Dual Volume Control
- Footswitch

MAX Dispatch System Control and Endpoint radio interface equipment:

- Two (2) MAX Central redundant hardware platforms that hosts Z-Node Manager
- Two (2) Z-Node Managers, redundant
- One (1) MAX Central Portal Host and Portal Z-Node License (for connectivity to Richmond County MAX Dispatch system to share resources; requires Portal on Richmond County side, as well)
- Thirty (30) radio channel licenses
- Power supplies and mounting hardware
- 19” equipment racks
- Network switches with fiber interfaces

Services

- Preparation, configuration, and programming of the system
- Installation of the console operator positions and common system equipment
- Up to two (2) days of training, divided into Supervisor and Operator
- First year warranty, software services, and 24x7 emergency service response for critical system failures

RCC welcomes the opportunity to discuss options of critical spare equipment and extended service agreements, if the County wants to consider these items.

Special Notes:

- The County is responsible to provide the following for a successful implementation:
  - Full access to site(s), as required
  - Appropriate AC power for all equipment
  - Appropriate IT network and connectivity, as required
  - Appropriate indoor climate controlled installation space at the site(s)

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17 January 2020

Zetron MAX Dispatch
Pricing Summary

Radio Communications Company is pleased to provide Scotland County the following pricing for a new Zetron MAX Dispatch console solution. This is based on information provided from the County as well as on-site visits.

System Equipment and Hardware:

• Zetron MAX Dispatch Operator Positions	$91,953.35
• Zetron MAX Dispatch System Control Equipment	$68,044

Services:

• Installation, Testing, Cutover, Post-Implementation Documentation	$28,036
• First year factory warranty, software services, and RCC's 24x7 Emergency Service Response	Included
• Two (2) days of On-Site Training	$5,000

Total $193,033.35

Taxes are additional, as applicable. Pricing included herein is valid for 60 days.

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Itemized Hardware Summary

MAX Dispatch Operator Positions

Five (5) MAX Pro Workstations, each including:

- Workstation PC — $1,700 each position
- Software Licenses — ~~$9,939.17~~ each position Transposed $9,399.17
  - MAX Base Software
  - Individual Call
  - Tone Signaling/Paging
  - Telephony
  - Event Replay
  - Aux I/O Control Feature Set
- Media Dock — $3,890 each position
- Two (2) Speakers (standard) — $1,130.50 each position
- Desk Microphone — $635 each position
- Two (2) Dual Prong Headset Jackbox with Dual Volume Control — $1,520 each position
- Footswitch — $116 each position

Total for 5 Operator Positions: $91,953.35

MAX Dispatch System Control Equipment

~~(2)~~	MAX Central redundant hardware platforms that hosts MAX Z-Node Manager	$12,702
(30)	Radio Channel Licenses	$9,078
~~(1)~~	MAX Central Portal Host and Portal Z-Node License	$7,296
	Power Supplies and Distribution, Redundant Network Switches, Miscellaneous Hardware	$38,968 50%

Adjusted for ineligible expenses.

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Payment Terms

RCC respectfully submits the following suggested Payment Terms:

25% non-refundable deposit upon written notice to proceed

50% payment when equipment is delivered to the site (or ready to be delivered)

15% upon installation

10% upon final acceptance

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Preliminary Project Schedule

Following receipt of an award, RCC and Scotland County Emergency Services will schedule a Kickoff Meeting, where project managers will be identified, any issues and additional implementation details will be discussed. This should be scheduled as soon as possible after a purchase order.

Following the Kickoff meeting, the Preliminary Project Schedule to be considered is:

Week 1-4 Preliminary Project Review

By the end of this time period, RCC and Scotland County will complete an understanding of:

- Installation responsibility details
- Cutover planning
- Functional Acceptance Test Plan (FATP)

Weeks 5-8 Final Project Review

By the end of this time period, RCC will complete and present the Cutover plan and FATP.

Weeks 9-12

Equipment will be received at RCC and readied. Assuming the site is ready, the equipment will be delivered and installed.

Week 13-14

System will be tested and accepted.

Week 15-16

Training will be performed and cutover will take place.

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Training

Radio Communications Company is pleased to provide systems training to Scotland County, performed by qualified personnel. Courses will include Supervisor and Operator training to provide the users the tools to successfully use the new Zetron MAX Dispatch system.

RCC proposes two days of training. The first day will consist of a class for the supervisory staff and a class for general user operators. The second day will consist of two general user operator classes.

Each class will utilize the 911 center and the operator positions for actual hands-on training on the new systems.

August 29, 2019

Pokey Harris
NC Department of Information Technology
PO Box 17209
Raleigh NC 27619

Dear Ms. Harris,

As the primary PSAP, Charlotte-Mecklenburg Police Department would like to submit the FY2020 Funding Reconsideration Request on behalf of our secondary PSAP, Charlotte Fire Department.

The Charlotte Fire Department's Communications Division is a recognized secondary PSAP. While the Division only receives approximately 22,000 911 calls per year, over 130,000 calls are dispatched; including EMS, Fire, Rescue, and Hazardous Materials calls. Calls are received via other means than 911, including CADTOCAD interface with the County's EMS agency, administrative lines, and radio talkgroups.

FY18's funds were not used causing a reduction of of $29,139. This was caused by a change in leadership positions and the way funding was utilized and accessed prior. In addition, until a meeting in August of 2018 this was not known by members of our Division and Finance.

The Department is required to pay for telephone services. This money was requested to be added to the budget and this was not approved in the City budget. This totals $126,172.40 to be paid to West/Intrado. The Department/Division also was not approved for funding for our 911 recorder. Carolina Recording's invoices total $25,630.00. The Department is having to encumber the additional expenses into the Fire Department's FY20 budget. There were additional cuts to the technology budget as well.

This year the City also lost its UASI (Urban Area Security Initiative) designation. This is a loss of two million dollars. This is causing the Department to have to cover expenses previously covered under this program. There are also costs that are being incurred in preparation of and will be incurred with the addition of the RNC coming in August of 2020.

Charlotte Fire is requesting reconsideration of funds for FY20 totaling $180,941.40. These are by no means the entire expenses for the 911 center but to help mediate the changes and challenges that are being faced in this budget year.

Call Summary

11 Positions
22,219 Totall 911 Calls

Charlotte Fire (INT)
221 N Myers
Charlotte, NC 28202
County: Mecklenburg

Year: 2018
Agency Affiliation: Fire

Report Date:	01/16/2020 13:15:32
Report Date From:	07/01/2018
Report Date To:	06/30/2019
Period Group:	Month
Days Of Week:	All
Call Type:	911 Calls
Abandoned Filters:	Include Abandoned
NSI Filters:	NSI Included in 911 Totals
Agency Affiliation:	All

		July 2018	August 2018	September 2018	October 2018	November 2018	December 2018	Total
911	Inbound	1,977	1,898	2,016	2,039	1,606	1,858	11,394
	Abandoned	3	2	4	1	3	16	29
	Abandoned %	0.15%	0.11%	0.20%	0.05%	0.19%	0.85%	0.25%
	Unparsed	0	0	0	0	0	0	0
	Total	1,980	1,900	2,020	2,040	1,609	1,874	11,423
	Avg Call Duration	89.2	87.9	94.5	96.9	94.6	91.0	92.3
	Total	1,980	1,900	2,020	2,040	1,609	1,874	11,423

Call Summary

Charlotte Fire (INT)
221 N Myers
Charlotte, NC 28202
County: Mecklenburg

Year: 2019
Agency Affiliation: Fire

Report Date:	01/16/2020 13:15:32
Report Date From:	07/01/2018
Report Date To:	06/30/2019
Period Group:	Month
Days Of Week:	All
Call Type:	911 Calls
Abandoned Filters:	Include Abandoned
NSI Filters:	NSI Included in 911 Totals
Agency Affiliation:	All

		January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	Total
911	Inbound	1,634	1,560	1,635	1,762	2,093	2,067	10,751
	Abandoned	4	6	8	10	10	7	45
	Abandoned %	0.24%	0.38%	0.49%	0.56%	0.48%	0.34%	0.42%
	Unparsed	0	0	0	0	0	0	0
	Total	1,638	1,566	1,643	1,772	2,103	2,074	10,796
	Avg Call Duration	92.9	89.3	91.2	92.1	90.3	90.4	91.0
	Total	1,638	1,566	1,643	1,772	2,103	2,074	10,796

Call Summary

Charlotte Fire (INT)

221 N Myers

Charlotte, NC 28202 County: Mecklenburg

Years: 2017 - 2018

Agency Affiliation Fire

Report Date:	02/14/2020 13:26:53
Report Date From:	07/01/2017
Report Date To:	06/30/2018
Period Group:	Year
Days Of Week:	All
Call Type:	911 Calls
Abandoned Filters:	Include Abandoned
NSI Filters:	NSI Included in 911 Totals
Agency Affiliation:	All

		2017	2018	Total
911	**Inbound**	10,565	10,842	21,407
	Abandoned	29	51	80
	Abandoned %	0.27%	0.47%	0.37%
	Unparsed	0	0	0
	Total	10,594	10,893	21,487
	Avg Call Duration	88.3	89.4	88.9
	Total	10,594	10,893	21,487

Call Summary

Charlotte Fire (INT)

221 N Myers

Charlotte, NC 28202 County: Mecklenburg

Years: 2016 - 2017

Agency Affiliation Fire

Report Date:	02/14/2020 13:28:49
Report Date From:	07/01/2016
Report Date To:	06/30/2017
Period Group:	Year
Days Of Week:	All
Call Type:	911 Calls
Abandoned Filters:	Include Abandoned
NSI Filters:	NSI Included in 911 Totals
Agency Affiliation:	All

		2016	2017	Total
911	**Inbound**	12,012	10,889	22,901
	Abandoned	33	22	55
	Abandoned %	0.27%	0.20%	0.24%
	Unparsed	0	0	0
	Total	12,045	10,911	22,956
	Avg Call Duration	86.2	87.4	86.8
	Total	12,045	10,911	22,956

North Carolina 911 Board

PSAP Name: Charlotte Fire
Contact Name: Johnny Horn
Contact Address: 221 N Myers Street
City: Charlotte
Zip: 28202
Contact Email: jhorn@charlottenc.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 are due by February 28 2019.*** **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, 2019 Emergency Telephone System Fund Balance: $2,597.01

PHONE & FURNITURE Expenditure	FY2020 Requested Increase Amount ONE-TIME Capital Purchase Cost	FY2020 Requested Increase Amount Recurring MONTHLY Cost	FY2020 Requested Increase Amount ANNUAL Cost	Comments
West Safety Solution			114,438.72	Total $126,172.40 however lowered per 866.96/seat
TOTAL	$0.00	$0.00	$114,438.72	***Note this is not being requested for recurring this is being requested as one time funding.***

SOFTWARE				Comments
Voice Logging Recorder			24,270.68	***Note this is not being requested for recurring this is being requested as one time funding.***
Software Maintenance				
TOTAL	$0.00	$0.00	$24,270.68	

List expenditures to be applied to fund balance and submit quotes or invoices for review.:	Expense Amount
Total remaining Fund balance:	$0.00

Items below this cell are to be completed by 911 Board Staff	
APPROVED FY2020 FUNDING	$26,724.41
FY2020 Annual One Time Request	$138,709.40
Requested FY2020 Funding	$165,433.81

Secondary PSAP is funded on a cost per call basis.

TEMPLATE

FY2020 Funding Reconsideration Worksheet:

PSAP Name: CMPD for Charlotte Fire

FY2019 Estimated Ending Fund Balance	$2,597.01
PSAP Funding Distribution for FY2020	$26,724.41
Approved Budgeted Operational for fiscal year.	-$26,724.41
Approved Budgeted Capital for fiscal year.	
Fund balance:	$2,597.01

PROD DATABASE May 1 2019

PROJECT BUDGET REPORT

FOR 07/01/2019 - 01/31/2020

Original Budget	Net Budget Amendments	Revised Budget	Requisitions	Encumbrances	Actuals	Available Budget	Percent Used
Project: 3081000003 - OTHER - Fire Secondary PSAP							
F 3081000003-5000 -50009000 -2020 Secondary PSAP Fire							
0.00	-26,724.41	-26,724.41	0.00	0.00	0.00	-26,724.41	0.00%

EFF DATE	JNL	LINE	SRC	REF1	REF2	REF3	CHECK	AMOUNT	D/C	GLYrPr	GLJnl	GLLine
11/21/2019	302277	7	BUA	PSAP91	FY20Bud911			26,724.41	C	2020/05	307979	7

TOTALS for Phase/Source: 5000 -							
0.00	-26,724.41	-26,724.41	0.00	0.00	0.00	-26,724.41	0.00%
E 3081000003-9010000000- - Fire secondary PSAP							
0.00	352,028.71	352,028.71	0.00	0.00	-120.00	352,148.71	-0.03%

EFF DATE	JNL	LINE	SRC	REF1	REF2	REF3	CHECK	AMOUNT	D/C	GLYrPr	GLJnl	GLLine
11/21/2019	302277	3	BUA	PSAP91	FY20Bud911			26,724.41	D	2020/05	307979	3

TOTALS for Phase/Source: 9010000000 -							
0.00	352,028.71	352,028.71	0.00	0.00	-120.00	352,148.71	-0.03%
EXPENSE TOTALS for Project: 3081000003 - OTHER - Fire Secondary PSAP							
0.00	352,028.71	352,028.71	0.00	0.00	-120.00	352,148.71	-0.03%
FUNDING SOURCE TOTALS for Project: 3081000003 - OTHER - Fire Secondary PSAP							
0.00	-26,724.41	-26,724.41	0.00	0.00	0.00	-26,724.41	0.00%
TOTALS for Project: 3081000003 - OTHER - Fire Secondary PSAP							
0.00	325,304.30	325,304.30	0.00	0.00	-120.00	325,424.30	

TOTALS FOR EXPENSE STRINGS							
0.00	352,028.71	352,028.71	0.00	0.00	-120.00	352,148.71	-0.03
TOTALS FOR FUNDING SOURCE STRINGS							
0.00	-26,724.41	-26,724.41	0.00	0.00	0.00	-26,724.41	0.00

REPORT TOTAL						
Original Budget	Net Budget Amendments	Revised Budget	Requisitions	Encumbrances	Actuals	Available Budget
0.00	325,304.30	325,304.30	0.00	0.00	-120.00	325,424.30

PROJECT BUDGET REPORT

REPORT OPTIONS

Template Information

Report template code:	PROJBUDRPT
Template description:	Project Budget Report
Master template:	Y

Report Options

Format:	8 columns
Segment description:	Short
Print report definitions?	Y
Showing funding source strings as credits?	Y
Double space the report?	N
Exclude project strings with zero balances?	Y
Include cents in dollar amounts?	Y
Amounts exceed 999 million?	N
Only include project strings that exceed	0% of available budget

Column Definitions

Column 1 code:001 Original Budget
Column 2 code:002 Amendments
Column 3 code:005 Revised Budget
Column 4 code:007 Requisitions
Column 5 code:006 Encumbrances
Column 6 code:008 Actuals
Column 7 code:011 Available
Column 8 code:015 PCTUsd(enc/act)

Project String Selection

	Expense	Funding Source
Project:	3081000003	3081000003
Phase:	9010000000	
Task:		
Sub-Task:		2020

Report Options

Beginning year/month:	2019/7
Ending year/month:	2020/1
Group by Major Project?	N
Group by Budget Level	N

Sorting Options

1: Project		2: Phase/Source	
Total	Y	Total	Y
Page break	Y	Page break	Y

Detail Options

Include string description:	Long
Include Project String Detail:	Y
Include Employee Detail:	N

PROJECT BUDGET REPORT

REPORT OPTIONS

Include Journal Detail:	Y
Include Actual Detail:	Y
Include Encumbrance Detail:	N
Include Budget Detail:	Y
Include vendor info:	N
Include unposted transactions:	N
Journal source code(s):	

** END OF REPORT - Generated by Crockett, Kim **

2020 FIRE DEPARTMENT
YEAR TO DATE BUDGET REPORT

FOR 2020 13 JOURNAL DETAIL 2020 1 TO 2020 13

ACCOUNTS FOR: 3130 CFD Communications

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCE/REQ	AVAILABLE BUDGET	% USED
51 Personal Services						
510100 Salaries & Wages - Regular						
1,847,762.00	0.00	1,847,762.00	0.00	0.00	1,847,762.00	.0%
510140 Overtime						
90,000.00	0.00	90,000.00	0.00	0.00	90,000.00	.0%
510195 Employee Merit Pay						
34,040.00	0.00	34,040.00	0.00	0.00	34,040.00	.0%
515130 Social Security Tax						
142,870.00	0.00	142,870.00	0.00	0.00	142,870.00	.0%
515140 Empl Retirement Expns						
168,421.00	0.00	168,421.00	0.00	0.00	168,421.00	.0%
515150 Empl Insurance Premium						
297,400.00	0.00	297,400.00	0.00	0.00	297,400.00	.0%
515190 401K Retirement						
55,846.00	0.00	55,846.00	0.00	0.00	55,846.00	.0%
TOTAL Personal Services						
2,636,339.00	0.00	2,636,339.00	0.00	0.00	2,636,339.00	.0%

2020 FIRE DEPARTMENT
YEAR TO DATE BUDGET REPORT

FOR 2020 13

JOURNAL DETAIL 2020 1 TO 2020 13

ACCOUNTS FOR: 3130 CFD Communications

ORIGINAL APPROP	TRANS/ADJSMTS	REVISED BUDGET	YTD EXPENDED	ENCUMBRANCE/REQ	AVAILABLE BUDGET	% USED
52 Operating Expenses						
520030 Uniforms-Prot Clothing						
15,000.00	0.00	15,000.00	0.00	0.00	15,000.00	.0%
520060 Meals and Subsistence						
4,000.00	0.00	4,000.00	0.00	0.00	4,000.00	.0%
520110 ISP Fleet - M&R-Auto/Equipme						
3,860.00	0.00	3,860.00	0.00	0.00	3,860.00	.0%
520160 ISP M&R-Communication Eqp						
480,227.00	0.00	480,227.00	0.00	0.00	480,227.00	.0%
520610 Education						
8,700.00	0.00	8,700.00	0.00	0.00	8,700.00	.0%
521910 Misc Contractual Services						
9,172.00	0.00	9,172.00	0.00	0.00	9,172.00	.0%
522000 Motor Fuels & Lubrcnts						
3,800.00	0.00	3,800.00	0.00	0.00	3,800.00	.0%
522200 Janitorial & Cleaning Suppli						
1,000.00	0.00	1,000.00	0.00	0.00	1,000.00	.0%
522210 Specialty Departmental Suppl						
9,100.00	0.00	9,100.00	0.00	0.00	9,100.00	.0%
522230 Sm Tools & Expnd Eqpt						
6,100.00	0.00	6,100.00	0.00	0.00	6,100.00	.0%
522240 Office Supplies						
4,120.00	0.00	4,120.00	0.00	0.00	4,120.00	.0%
522490 Other Materials/Supplies						
118,500.00	0.00	118,500.00	0.00	0.00	118,500.00	.0%
522500 Telecommunications						
3,730.00	0.00	3,730.00	0.00	0.00	3,730.00	.0%
524020 Rental Of Equipment						
3,600.00	0.00	3,600.00	0.00	0.00	3,600.00	.0%
529020 Training Conf & Meetings-Day						
12,320.00	0.00	12,320.00	0.00	0.00	12,320.00	.0%
529030 Postage						
300.00	0.00	300.00	0.00	0.00	300.00	.0%
529040 Printing & Publishing						
2,450.00	0.00	2,450.00	0.00	0.00	2,450.00	.0%
529050 Dues,Subscr, & Prof Lic						
10,928.00	0.00	10,928.00	0.00	0.00	10,928.00	.0%
TOTAL Operating Expenses						
696,907.00	0.00	696,907.00	0.00	0.00	696,907.00	.0%
TOTAL CFD Communications						
3,333,246.00	0.00	3,333,246.00	0.00	0.00	3,333,246.00	.0%

5 Year Technology Plan

FY20

- CAD Software Upgrade
- Replace CAD workstations and monitors at the Primary Center (Every 3 Years)
- Replace keyboards and Mice at the Primary Center (Every 3 Years)
- Replacement Headsets at the Primary Center (Every 3 Years)
- Replace CAD Servers (Every 5 Years)
- DR solution for CAD (Every 5 Years)
- Replace UPS at the Primary Center (Every 10 Years)

FY21

- E911 Software Upgrade (Every 2 Years)
- Fire Station Alerting System Software Upgrade (Every 2 Years)
- Replace CAD workstations and monitors at the Backup Center (Every 3 Years)
- Replace keyboards and Mice at the Backup Center (Every 3 Years)
- Replacement Headsets at the Backup Center (Every 3 Years)
- ESINet Transition
    - After RNC, CMPD/Fire/Medic start discussions with NC 911 on the transition to ESINet and then follow the upgrade schedule set by NC 911.

FY22

- CAD Software Upgrade (Every 2 Years)
- Replace GIS Server (Every 5 Years)

FY23 Public Safety Communications Building (Joint Communications Building - New Construction)

- E911 Software Upgrade (Every 2 Years)
- Fire Station Alerting System Software Upgrade (Every 2 Years)
- Replace CAD workstations and monitors at the Primary Center (Every 3 Years)
- Replace keyboards and Mice at the Primary Center (Every 3 Years)
- Replacement Headsets at the Primary Center (Every 3 Years)
- E911 Hardware refresh (Every 5 Years)
- Public Safety Network Switches for PSCB (Every 7 Years)
- Emergency Power Generator for PSCB (Every 10 Years)
- UPS for PSCB (Every 10 Years)

- Radio consoles for PSCB (Every 10 Years)

FY24

- CAD Software Upgrade (Every 2 Years)
- Replace CAD workstations and monitors at the Backup Center (Every 3 Years)
- Replace keyboards and Mice at the Backup Center (Every 3 Years)
- Replacement Headsets at the Backup Center (Every 3 Years)

FY25

- E911 Software Upgrade (Every 2 Years)
- Fire Station Alerting System Software Upgrade (Every 2 Years)
- Replace CAD Servers (Every 5 Years)
- DR solution for CAD (Every 5 Years)

Carolina Recording Systems
Service/Maintenance Plan Coverage

For: Charlotte Fire Department
Term: February 1, 2020 through January 31, 2023 (3 years) with the option to renew for an additional two years through January 31, 2025.
Annual Invoice Amounts: $22,630 (2020-2021), $23,305 (2021-2022), $24,005 (2021-2022)
Optional year amounts to be determined and sent as budgetary quotes in advance of billing.

SERVICES PROVIDED:

- No charge will be made for necessary service repair due to manufacturer defect or normal wear and tear. Exceptions include when a malfunction is caused by water, fire, flood or other casualty, accident, misuse, abuse, cyber-attacks or viruses, extreme temperatures, power line fluctuations, lightning, or other acts of nature or if the necessary replacement parts are not available. In no event will Carolina Recording Systems, LLC be responsible for consequential or incidental damages beyond our sole obligation to repair or replace the defective unit.
- Agreement provides 24/7 response, free service loan equipment in the case of full system failures (except in circumstances beyond our control), parts, labor and mileage during the contract period.
- Agreement will be for time period agreed and can be renewed each year during system ownership unless canceled by either party or Customer's failure to pay invoice within 60 days. Customer will be invoiced at the beginning of each annual agreement term period.
- The Service agreement amount may be subject to an annual increase to adjust for inflationary costs.
- Customer should provide an onsite contact person(s) designated to perform routine maintenance and be responsible for the overall operation of the recording system.
- While it is our policy to check and respond to system alerts, there are circumstances such as loss of communication, internet connectivity, or other factors that could interfere with our ability to identify an issue. We require that center personnel contact us immediately if they are notified by the recording system of a problem.
- Customers with Systems covered under a Service Agreement are eligible to receive system training as needed for site personnel at no additional cost.
- Our technicians will perform periodic system inspections and provide scheduled preventative maintenance measures to help provide a higher level of system reliability in

a mission-critical environment. CRS technicians will instruct customer site personnel on these requirements.

- Most software revisions and updates designed to maintain system features or repair software flaws will be provided on recording systems under contract at no additional charge. Third party license costs and system relocations/cut-overs due to changes, updates or installation of new CPE equipment as well as radio equipment upgrades such as AIS Astro version licenses will be charged an agreed upon rate.
- Agreement provides for 24/7 technician toll free telephone response within 30 minutes. Toll-free telephone support available at (888) 661-0202
- Agreement provides for 24/7 on site service response

03-13-2019

Byron Burns - Carolina Recording Systems Date

Documents attached:

- Related invoices
- FY18 Charlotte Fire Department's Annual Program Appraisal (FY19 is not out yet)
- Copy of FY15-FY19 911 fund allocation
- FY20 Communication's Division Budget
- 5 Year Technology Plan
- Secondary PSAP Document
- Reconsideration Spreadsheet

Thank you very much for the consideration.

Kellie High-Foster
Business Services Manager
Financial Management Division
Charlotte-Mecklenburg Police Department

RECEIVED
By LJohnson at 3:40 pm, Dec 12, 2018

Safety Solutions, Corp
1601 DRY CREEK DRIVE
LONGMONT, CO 80503
USA

PO # 19012839
Line 1 QTY 1

INVOICE #: 169241A Rev2

INVOICE DATE: 6/14/18
PO#: Per Contract
TERMS: NET 30 DAYS

CUSTOMER:
CHARLOTTE FIRE DEPARTMENT
500 DALTON AVE.
CHARLOTTE, NC 28206
USA

CUSTOMER # : 1025

SHIPPING LOCATION:
CHARLOTTE FIRE DEPARTMENT
500 DALTON AVE.
CHARLOTTE, NC 28206
USA

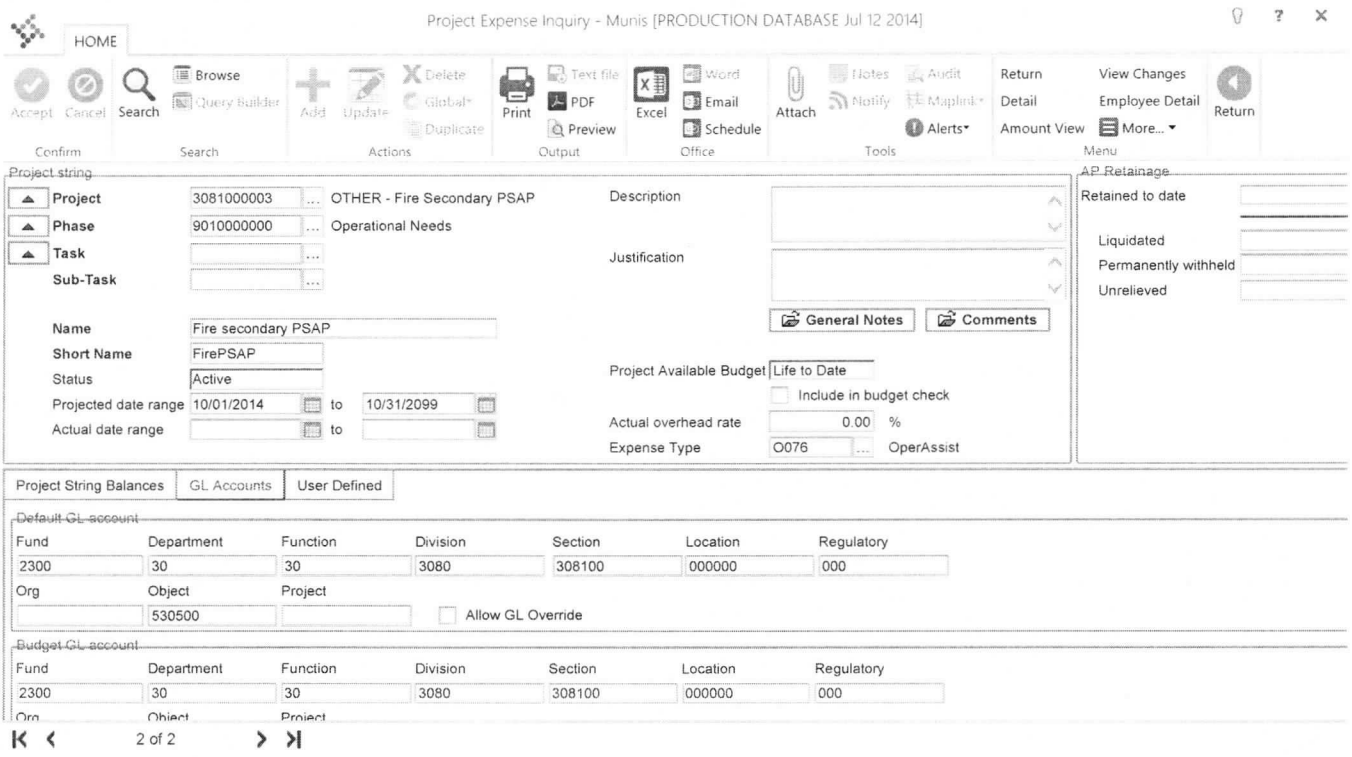
LINE	QTY	PRODUCT #	DESCRIPTION	UNIT COST	TOTAL COST
			As per contract - CFD Site Onsite Maintenance/Help Desk/Evergreen, 07/01/18-06/30/19		90,810.63

Please send remittance to:
West Safety Solutions, Corp
PO Box 74007075
Chicago, IL 60674-7075
Please make note of our new lockbox address

ACH Information:
Bank Name: Bank of America
Bank Add: 1401 Elm St 2nd Flr, Dallas Tx 7520
Acct Name: West Safety Solu
Acct Number: 334037143583
ABA Routing Number: 061 000 052
For Billing Questions, Please Call:
1-800-269-4165 Or Email:

Wire Information:
Bank Name: Bank of America
Bank Address: 100 West 33rd St NY, NY 1000
Account Name: West Safety Solutions, Corp
Account Number: 334037143583
ABA Routing Number: 026009593
Swift Code: BOFAUS3N

INVOICE TOTAL:	90,810.63
APPLICABLE TAXES:	-
PREVIOUS PAYMENTS:	-
AMOUNT DUE:	$90,810.63 USD


Project Expense Inquiry - Munis [PRODUCTION DATABASE Jul 12 2014]
HOME
Accept
Cancel
Search
Browse
Query Builder
Add
Update
Delete
Global*
Duplicate
Print
Text file
PDF
Preview
Excel
Word
Email
Schedule
Attach
Notes
Notify
Audit
Maplink*
Alerts*
Return
Detail
Amount View
View Changes
Employee Detail
More...
Return
Confirm
Search
Actions
Output
Office
Tools
Menu
Project string
Project 3081000003 ... OTHER - Fire Secondary PSAP
Phase 9010000000 ... Operational Needs
Task ...
Sub-Task ...
Name Fire secondary PSAP
Short Name FirePSAP
Status Active
Projected date range 10/01/2014 to 10/31/2099
Actual date range to
Description
Justification
General Notes
Comments
Project Available Budget Life to Date
Include in budget check
Actual overhead rate 0.00 %
Expense Type O076 ... OperAssist
AP Retainage
Retained to date
Liquidated
Permanently withheld
Unrelieved
Project String Balances
GL Accounts
User Defined
Default GL account
Fund Department Function Division Section Location Regulatory
2300 30 30 3080 308100 000000 000
Org Object Project
530500
Allow GL Override
Budget GL account
Fund Department Function Division Section Location Regulatory
2300 30 30 3080 308100 000000 000
Org Object Project
2 of 2

Maintenance Renewal

for

Charlotte FD, NC

(**Direct Sale)**

Quote Number: 34452

Version: 2

May 16, 2019

Summary –Partial Year/Years - Charlotte FD

Item	Cost
Maintenance	$35,361.77
Total:	**$35,361.77**

Year	Systems	Professional Services	Recurring Services	Maintenance Services	Totals
Year 1				$35,271.35	**$35,271.35**
Year 2				$90.42	**$90.42**
Totals				**$35,361.77**	**$35,361.77**

Configuration - Charlotte FD

Site Configuration

Total Positions	11

Maintenance

Software Subscription	$8,227.45
Software Protection and Remote Tech Support	$6,690.42
Sentry Monitoring Service	$897.60
Dedicated Onsite Maintenance	$19,546.30

Model#	Description	Qty	List Price	Selling Price	Total
Software Subscription- 1/1/20--6/30/20					
950999/SUB1	Software Subscription Service - 1 Year/Position Partial Year 1	11	$1,500.00	$747.95	$8,227.45
				Subtotal	**$8,227.45**
Software Protection and Remote Tech Support- 6/27/19—6/30/20					
950999/PRO1	Software Protection and Remote Technical Support - 1 Year/Position Year 1	11	$600.00	$600.00	$6,600.00
950999/PRO1	Software Protection and Remote Technical Support - 1 Year/Position Partial Year 2	11	$600.00	$8.22	$90.42
				Subtotal	**$6,690.42**
Sentry Monitoring Service- 1/1/20—6/30/20					
915137	Sentry Monitoring per Node per Year Partial Year 1	15	$120.00	$59.84	$897.60
				Subtotal	**$897.60**
Dedicated Onsite Maintenance- 1/1/20—6/30/20					
950999/DEDOSM	Dedicated On-Site Maintenance Partial Year 1	2	$150,000.00	$9,773.15	$19,546.30
				Subtotal	**$19,546.30**
				Total	**$35, 361.77**

Optional Maintenance Services

Model#	Description	Qty	List Price	Selling Price	Total Price
	Antivirus Recurring Fees				
	Antivirus Year 1				
914143	Symantec EndPoint Protection Manager (EPM) - per year	13	$63.00	$63.00	$819.00
				Subtotal	$819.00

Notes

1 Prorated Software Pro & Remote Tech Support for 11 positions, from 6/27/19 through 6/30/20. Prorated Sentry, Software Subscription, and Dedicated OSM services from 1/1/20 through 6/30/20, so that all maintenance services co-terminate (with the exception of MapFlex maintenance, which expires 6/26/23) at the end of the Customer's fiscal year.

Previous quotes are 18330 and 22715v3.

One year of Anti-Virus shown as optional, and cannot be prorated. Anti-Virus is for all 11 positions and 2 servers, since we cannot catch the 2 positions up with the other 9. Appears Anti-Virus was purchased 10/10/18, so should be valid until 10/10/19.

2 **Software Subscription Service** provides the customer with access to software upgrades including new features. This offering only provides for the availability of the software. Installation and training (if needed) are not included. Any required hardware or operating system changes are also not included.

West Safety Solutions, Corp. will provide periodic software release bulletins to customers which announce and explain new feature releases for West Safety Solutions Corp. software. Customers may then request the new release or version from West Safety Solutions Corp. based on applicability of the release to customer's system. The customer is responsible for installation of all these releases, unless the On-Site Maintenance Service is purchased. If On-Site Maintenance has not been purchased and the customer prefers to have West Safety Solutions Corp. deploy a new release, West Safety Solutions Corp. will dispatch appropriate personnel to perform the upgrade on a mutually agreed upon date at West Safety Solutions Corp.'s then current prices for such services.

3 **Software Protection and Remote Technical Support** is a coverage requirement with the purchase and ownership of West Safety Solutions Corp. CPE system equipment. The coverage requirement is effective after the expiration of the system warranty, but a purchase order for the service, for at least one year duration, is required at the time of any new system purchase.
Software Protection and Remote Technical Support cannot be deleted from quotes or system orders.
Once a Software Protection and Remote Technical Support service contract is established for the site during system initial purchase, all items subsequently added to the site will not require an additional contract, but the acquisition of additional positions will increase the price of the services.
a. For sites with one year coverage contracts, the increased price will be reflected in the quote at the next contract renewal point.
b. For sites with multi-year agreements, the customer will be required to retract the remaining years of the original purchase order and issue a new purchase order for the remaining period covering the original system and new positions.
If a contract for Software Protection and Remote Technical Support expires without renewal, causing a lapse in coverage, the customer's access to the Support Center will be discontinued and a notification of services termination will be issued. Reinstatement of the lapsed coverage will require the following from the customer:

a) Payment in full for the lapsed period at the prevailing per-seat rate
b) Purchase of a new maintenance agreement (one-year or five-year)
c) System Recertification fees in the form of a Class A inspection at $1,500.00 per day plus related travel and expense charges.

Software Protection

This offering provides for the availability of software product updates. Installation and training (if needed) are not included. West Safety Solutions Corp. will publish periodic software release bulletins to customers which announce important product updates for West Safety Solutions Corp. software. Customers may then request the new update from West Safety Solutions Corp. based on applicability of the release to customer's system. Customer is responsible for installation of all these releases, unless the On-Site Maintenance Service is purchased. If On-Site Maintenance has not been purchased and the customer prefers to have West Safety Solutions Corp. deploy a new release, West Safety Solutions Corp. will dispatch appropriate personnel to perform the upgrade on a mutually agreed upon date at West Safety Solutions Corp.'s then current prices for such services.

Remote Technical Support

Support is provided by associates who specialize in the diagnosis and resolution of system performance issues. Remote Technical Support is available 24/7 through both a toll free hotline and a secure customer Internet portal. All service inquiries are tracked by a state-of-the-art CRM trouble ticket system that can be queried by customers through the online portal to obtain the most up-to-date status on their issues.

Terms

VENDOR NAME	**West Safety Solutions Corp** 1601 Dry Creek Drive Longmont, CO 80503
	Include quote number and customer EIN/Tax Identification Number on P.O.
SUBMIT P.O.	ordermanagement.safetyservices@west.com
PRICING	All prices are in USD Taxes, if applicable, are extra. Handling and Shipping charges are extra unless specified on the quote.
SHIPPING TERMS	FCA (Montreal), INCOTERMS 2010
PAYMENT	Per Contract
DELIVERY	TBD
VALIDITY	**Quote expires on September 12, 2019**. However, part numbers beginning with Q, such as QXXXXX, constitute unique third-party components. These components, including model and price, (i) may be subject to change at any time; and (ii) are non-cancellable, non-refundable, and non-exchangeable at any time.
COPYRIGHT	The information contained in this document is proprietary to West Safety Solutions Corp and is offered solely for the purpose of evaluation.

Carolina Recording Systems, LLC
PO Box 11311
Charlotte, NC 28220
CRS

QUOTE

FOR: Eventide NexLog Communications Recording System - Decoder

Charlotte Fire Alarm
221 N. Myers Street
Charlotte, NC 28202

Johnny Horn
(704) 336-8803
jhorn@ci.charlotte.nc.us

Quote Prepared By

Byron Burns
sales@crsnc.com
(704) 426-3008
Fax: (888) 776-0201
Help Desk: (888) 661-0202

Est. Delivery	Terms	Shipping Terms	Quote Valid Through	Quote Number
4 to 6 Weeks	Net 30	FOB - Frieght, Delivery - Prepaid and Add	08/01/2019	CFD0619

Line	Qty	Model	Description	Unit Price	Ext. Price
1	1	324720	DVSI 2-Port USB Decoder Unit (for P25, DMR, MOTOTRBO, NXDN) - Max 8	$ 3,000.00	$ 3,000.00

Installation Notes:
Customer's radio, telephone, and CAD vendors should provide the proper inputs, identified and terminated within 6 feet of the recorder's physical location.
Customer is responsible for insuring the necessary 3rd party licensing, installation, and integration work is completed by its other vendors.

North Carolina 911 Board PSAP Revenue/Expenditure Report
Status as of February 12, 2020

FY2018 Reports
Total received: 125

Completed: 37
Clarification – in process: 68
Reports awaiting review: 0
Review complete—waiting on revised sign report: 20
Report received—no documentation for review: 0
REPORT not received: 0

FY2019 Reports
Total received: 127
Completed: 9
Clarification – in process: 33
Reports awaiting review: 75
Review complete—waiting on revised sign report: 10
Report received—no documentation for review: 1
REPORT not received: 0

City of Jacksonville, NC
Public Safety
PO Drawer 436 ● Jacksonville, NC ● 28541-0128 ● 910 455-1472 ● fx 910 455-9987
An internationally accredited Fire Service and Law Enforcement Agency

Public Safety Director, Michael G. Yaniero

September 23, 2019

Jacksonville Public Safety 9-1-1 Center

Jacksonville 9-1-1 Center provides call-taking and dispatching services to both Jacksonville Police Department (JPD) and Jacksonville Fire Department (JFD). The current staffing levels reflect the need for 5.7 positions. The staff is currently restructuring the Communication Division in order to increase staffing levels within the center to reflect this need. The proposed staffing level will include:

- One dispatcher for LEO Primary Dispatch (JPD DISP)
- One dispatcher for LEO Inquiry channel and back up call-taker (JPD Inquiry)
- One dispatcher for Fire Primary Dispatch (JFD DISP)
- One call-taker – when a fire call is received call-taker will operate as an additional Fire Dispatch
- One part-time Telecommunicator call-taker - covering high call volume times on day shift. (also acts as a Fire dispatcher when working as call-taker)
- One part-time Telecommunicator call-taker – covering high call volume times on night shift. (also acts as a Fire dispatcher when working as call-taker)

Jacksonville 9-1-1 Center used the Erlang C Formula model to assist in determining Telecommunicator's Workload and Task Performance for 2018. Jacksonville's 9-1-1 Center requires 95% of emergency calls for answered within 10 seconds of less.

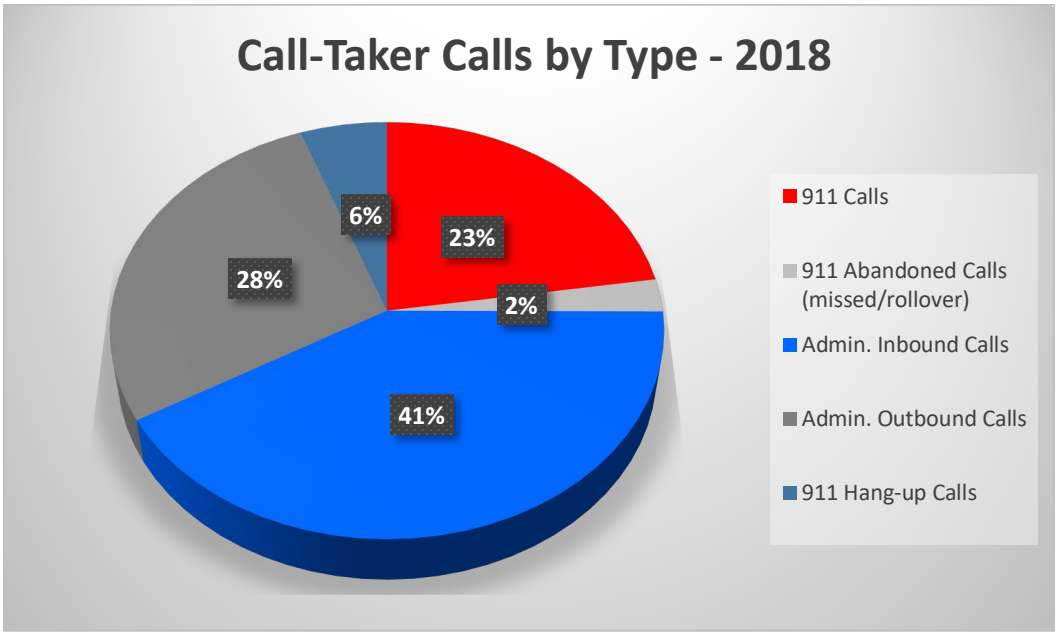
Analyzing the telephone volume and workload provides the data to support the number of Telecommunicators needed at this Agency.

Jacksonville PSAP call data shows in 2018, 149,856 calls answered. The total sum is comprised of inbound emergency 9-1-1, abandoned 9-1-1, administrative inbound calls and administrative outbound calls. Policy states call-takers will answer 9-1-1 calls within 10 seconds and all abandoned 9-1-1 calls are called back and verify no emergency is taking place. During 2018, Telecommunicators answer 9-1-1 calls within 10 seconds 98.77% of the time.

Reviewing calls for 2018 Jacksonville 9-1-1 Center received a total of 149,856 calls.

- 33,750 9-1-1 inbound calls, 24% of the call volume
- 3,777 abandoned 9-1-1 calls, 3% of the call volume (missed/rollover calls)

- 62,189 inbound administrative calls, 44% of the call volume
- 41,744 outbound administrative calls, 29% of the call volume
- 8,313 9-1-1 Hang-up calls, 6% of the calls



9-1-1 Data on Telecommunicator Tasks Performed

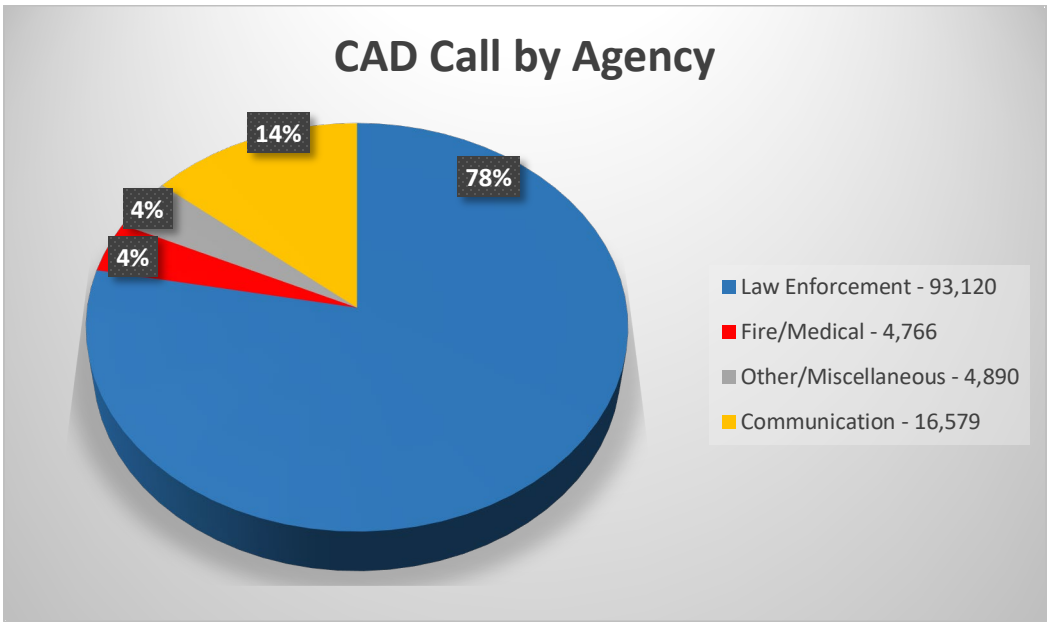
Workload Assessment	
Average Task Completion Time Per CAD Incident (in minutes)	1:29 minutes
Average Radio Time Per CAD Incident (in minutes)	1:15 minutes
Average Processing Time (APT) for CAD Incidents (in minutes)	1:17 minutes
Average Hourly Processing Capability (HPC)	25 minutes
Total CAD Incidents	102,776 Incidents
Workload Hours for Dispatchers	20, 311 Hours
Net Availability	
Net Annual Available Work Hours (NAWH)	2008
FTE (Full-Time Equivalent) Needed	
Turnover Rate – 3 years average	74% Turnover Rate
FTE Required to Accommodate Turnover @ 50% AOR	6 Telecommunicators

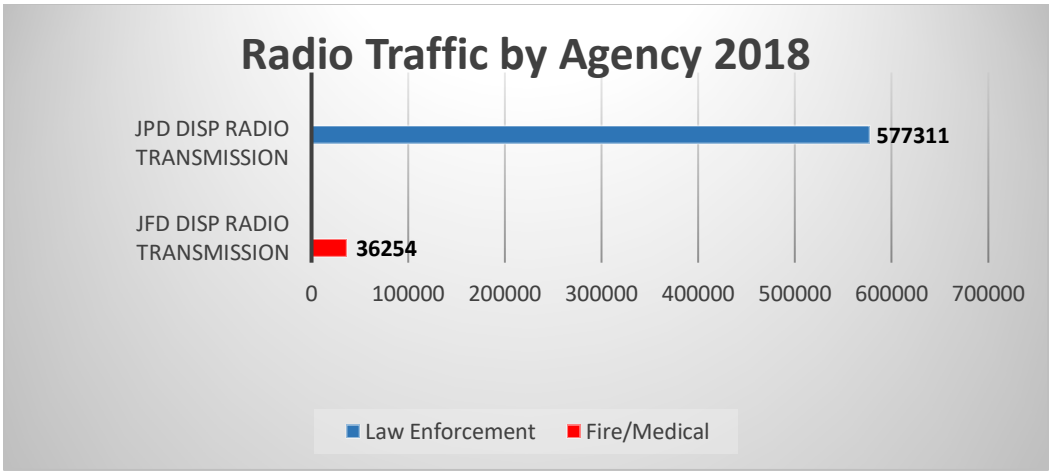
Average Incoming Call Rate – 24 hour period	410
Average Call Duration	86 seconds
Target Answering Time (seconds)	10 seconds
Service Level Required	95%

# of Fixed Post Call-takers Required for Incoming Calls	5.7 Consoles
Percentage of Calls Answered within 10 second	98.45%

The 9-1-1 Center input 102,776 calls into CAD during 2018. Communication's entered 16,579 in CAD; this is 14% of all calls entered into CAD.
Dispatch Telecommunicators interacted with First Responders by radio 613,565 times.

- A Telecommunicator/Dispatcher answered, called, or input transmitted information with Law Enforcement 577,565 times and with Firefighters 36,254 times over the course of 2018.





Call Centre Shrinkage Calculator

Based on					
Working days per year	365				
Working hours per week	48				
External Shrinkage	**Hours per week**	**Days per year**	**Shrinkage Days**	**Percentage**	
Annual Leave		60.8	60.8	16.7%	
Public holidays		11	11.0	3.0%	
Sickness		50.4	50.4	13.8%	
Absenteeism/ Lateness		10	10.8	3.0%	
Internal Shrinkage					
Training		24	24.0	6.6%	
Counseling		15	16.3	4.5%	
Quality Assurance	65		70.4	19.3%	
Team meetings		4	4.3	1.2%	
Daily Reports	14		15.2	4.2%	
Paid Breaks	5		5.4	1.5%	
Toilet breaks	2.5		2.7	0.7%	
System problems	3		3.3	0.9%	
Other activities		10	10.8	3.0%	
			Shrinkage Days	**Percentage**	
Total			285.4	78.2%	

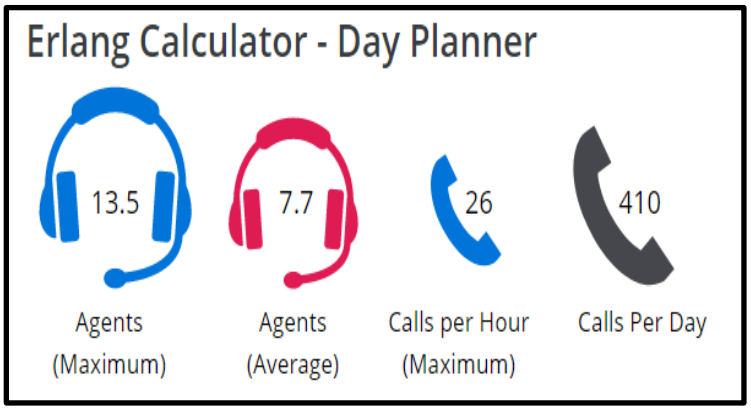
NENA Staffing Worksheet data

	Shift	
	Busy Hour	**Normal**
9-1-1 calls in Erlangs	0.430	0.143
7-/10-digit emerg # calls in Erlangs	0.454	0.191
Total Erlangs per Shift . . .	0.884	0.334
Call takers required per shift . .	6	5
Number of shifts per day . . .	2	2
Total Call Takers on watch in typical day		4
Staffing Ratio		4.35
Telecommunicators required for 24 x 7		**17.4**

The staffing Recommendation.

Data Collected Using the Erlang Calculator

Summary	
Maximum Calls per Period	26
Maximum Number of Agents	13.5
Average Number of Agents	7.7
Average Occupancy	17.7%
Service Level for Day	97.9%
Answered in	10 Seconds
Average Speed of Answer (ASA)	1 Seconds
Answered Immediately	97.1%



Jacksonville Public Safety 9-1-1 input current data from 2018 into the online Erlang Calculator – Day Planner. This formula reviewed multiple contacts/data to conclude our Agency requires a maximum of 13.5 Agents and an Average of 7.7 Agents when shrinkage is taken into account.

2018 - Inbound & Outbound Calls (per ECaTS)

Hours	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Avg.
12a	450	417	441	448	502	573	610	526	544	570	378	450	492.42
1a	263	220	240	240	299	268	353	333	355	245	235	315	280.50
2a	221	178	221	262	291	247	287	242	312	243	202	244	245.83
3a	201	147	210	177	200	141	222	215	239	222	212	236	201.83
4a	182	194	139	156	155	166	180	149	223	233	162	198	178.08
5a	159	142	185	115	149	152	180	186	285	137	159	179	169.00
6a	229	282	320	214	254	241	221	274	341	248	290	252	263.83
7a	476	370	453	297	444	413	421	403	457	392	348	381	404.58
8a	512	488	262	426	488	470	420	543	533	412	423	425	450.17
9a	559	600	519	520	504	575	591	636	642	500	511	514	555.92
10a	683	572	596	605	616	620	612	636	712	573	493	567	607.08
11a	683	672	545	632	633	674	692	713	814	656	552	633	658.25
12p	605	583	626	608	642	723	678	738	808	690	556	693	662.50
1p	695	555	629	704	706	787	725	768	818	691	685	745	709.00
2p	767	652	747	667	659	736	711	724	752	706	772	738	719.25
3p	715	604	819	642	751	723	729	938	756	747	685	698	733.92
4p	733	658	756	662	668	753	727	891	785	747	661	617	721.50
5p	738	659	658	619	676	706	768	705	790	692	641	633	690.42
6p	594	533	642	572	625	724	681	761	784	688	620	657	656.75
7p	583	532	596	549	561	650	640	667	746	697	561	575	613.08
8p	588	483	580	527	570	594	630	694	792	510	463	517	579.00
9p	465	429	463	490	453	550	578	608	662	588	482	602	530.83
10p	456	357	390	432	418	522	483	508	596	428	367	379	444.67
11p	320	300	396	307	355	439	501	419	444	464	286	355	382.17
Total	11877	10627	11433	10871	11619	12447	12640	13277	14190	12079	10744	11603	
Avg.	494.88	442.79	476.38	452.96	484.13	518.63	526.67	553.21	591.25	503.29	447.67	483.46	

Shift coverage needed to man the call volume from above chart.

Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	5	5	5	5	5		5	5	5	5	5
5	5	5	5	5	5	5	5	5	5	5	5
5	4	5	5	5	5	5	5	5	5	5	5
5	4	5	4	5	4	5	5	5	5	5	5
4	4	4	4	4	4	4	4	5	5	4	4
4	4	4	4	4	4	4	4	5	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
5	5	5	4	5	5	5	5	5	5	5	5
5	5	4	5	5	5	5	5	5	5	5	5
5	6	5	5	5	5	5	6	6	5	5	5
6	5	5	6	6	6	6	6	7	5	5	5
6	6	5	6	6	6	6	7	8	6	5	6
6	5	6	6	6	7	6	7	8	6	5	6
6	5	6	7	7	7	7	7	8	6	6	7
7	6	7	6	6	7	7	7	7	7	7	7
7	6	8	6	7	7	7	8	7	7	6	6
7	6	7	6	6	7	7	8	7	7	6	6
7	6	6	6	6	7	7	7	7	6	6	6
5	5	6	5	6	7	6	7	7	6	6	6
5	5	5	5	5	6	6	6	7	6	5	5
5	5	5	5	5	5	6	6	7	5	5	5
5	5	5	5	5	5	5	6	6	5	5	7
5	5	5	5	5	5	5	5	5	5	5	5
5	5	5	5	5	5	5	5	5	5	4	5

NC 911 Board Funding Model Discussion Points

I. Developing a funding model that takes into consideration the implementation of NextGen 911 technology.
   a. PSAP Funding Model Update proposed effective date July 2021
   b. Ample notification to PSAP and finance department.

II. Funding distributions following ESInet migration will change based on shifting certain costs from legacy to NG 911 per Board decision in April 2019. Those costs include:
   a. Selective Routing, Additional Trunks (backup), Wireless Phase II Routing, ANI per 1000, and DBMS per 1000.
   b. Example PSAP funding distribution change

EXPENDITURES	FY2015	FY2016	FY2017	FY2018	FY2019	FY2015-FY2019 5 YR Total	Estimated Yearly Distribution Amount	Vendor	CPE Equipment	CPE Maint. YTD	In-house Maint YTD	Deduction of CPE & Maint. From 5-YR Expenditure	New ATT Charges Yearly	Adjusted 5-YR total	Estimated FY2021 Distribution	Changes in Distribution Amount
PSAP County Emergency Comm.	229,664	212,430	267,366	342,712	242,180	1,294,352	258,870	ATT								
Legacy Phone Charges	28,008	25,044	27,324	28,457	8,458			Lease	284,015	44,736	2,749					
Total Expenditures	201,656	187,386	240,042	314,255	233,722	1,177,061	235,412					845,561	13,582	872,725	174,545	84,325

III. Facilitate discussion about inaccurate information provided to PSAP managers from account representatives.

IV. Integrating knowledge from PSAP technology and operational plans for budgeting and planning purposes.
   a. PSAP Assistance Team (PAT) role in PSAP planning:
      - Current Planning
      - Future purchases
      - Growth
      - Changes and enhancements in Technology
      - Expenditure Considerations (alignment with general statute)

V. Engage Leadership – APCO, NENA, and other key stakeholder leadership

VI. Influence of reconsiderations on overall PSAP funding.

VII. Refine definitions of implemental functions.

VIII. Backup capabilities in a NG environment that align with the 911 Board goals.