



# Information Technology During Disasters

## Does IT and Cybersecurity Matter?



## 2022 N.C. Cybersecurity Symposium



# Speakers

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# Goal

- Provide attendees with an understanding of how Information Technology (IT) integrates into disaster response and the Incident Command System (ICS)

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<https://www.cisa.gov/tlp>



# Objectives

- Provide guidance for stakeholders to integrate IT services and expertise into planning, response and recovery.
- Provide a basic understanding of ICS practices during disasters.



# Information Technology During Disasters

WAS





# Information Technology During Disasters

IS

- **An immediate need for all layers of disaster response.**
- **The most vital puzzle piece for open information sharing.**
- **The most taken for granted.**
- **The most vulnerable.**



# Incident Management Cycle

- Process of managing incident actions.
- Provides process to each phase of a response.





# IT based pre-planning processes: The basics

- Identify and test equipment / systems.
- Understand dependencies and weak points.
- Verify fuel and battery charge levels of generators, UPS equipment.
- Charge batteries, update firmware and patch software of cache equipment.





# IT based pre-planning processes: Cybersecurity-specific

- Educate users about ticket reporting processes.
- Reinforce cybersecurity priorities and cyber hygiene.
- Keep your guard up (re: links and attachments):  
You're tired and stressed. One click on a bad link can throw a monkey wrench into entire response.



# IT based response actions

- **Communications and IT Support are early requests by Incident Commanders**
- **The ability to communicate upstream and downstream is critical to achieving incident objectives.**
- **Conditions can often be austere requiring flexible responses to technical problems.**
- **Cyber risks must still be considered no matter the location or situation.**



# IT based response actions continued

- **Conduct PACE Planning for mission-critical systems / capabilities**
- **Monitor critical systems / assets**
- **Back up your data in 3 places:  
local primary, local backup, offsite backup.**
- **Consider temporary systems vs. day-to-day.  
(integrated or air-gapped?)**
- **Grant minimum access people need to do their jobs.**
- **Record changes made to be reverted after incident,  
especially firewalls, access granted to individuals.**



# Incident Command System (ICS)

- A standard way of managing and incident from the local or scene level.
- Flexible and scalable.
- Provides a means to support all operational aspects of on scene activity.

<https://training.fema.gov/is/>



# Incident Command System (ICS)

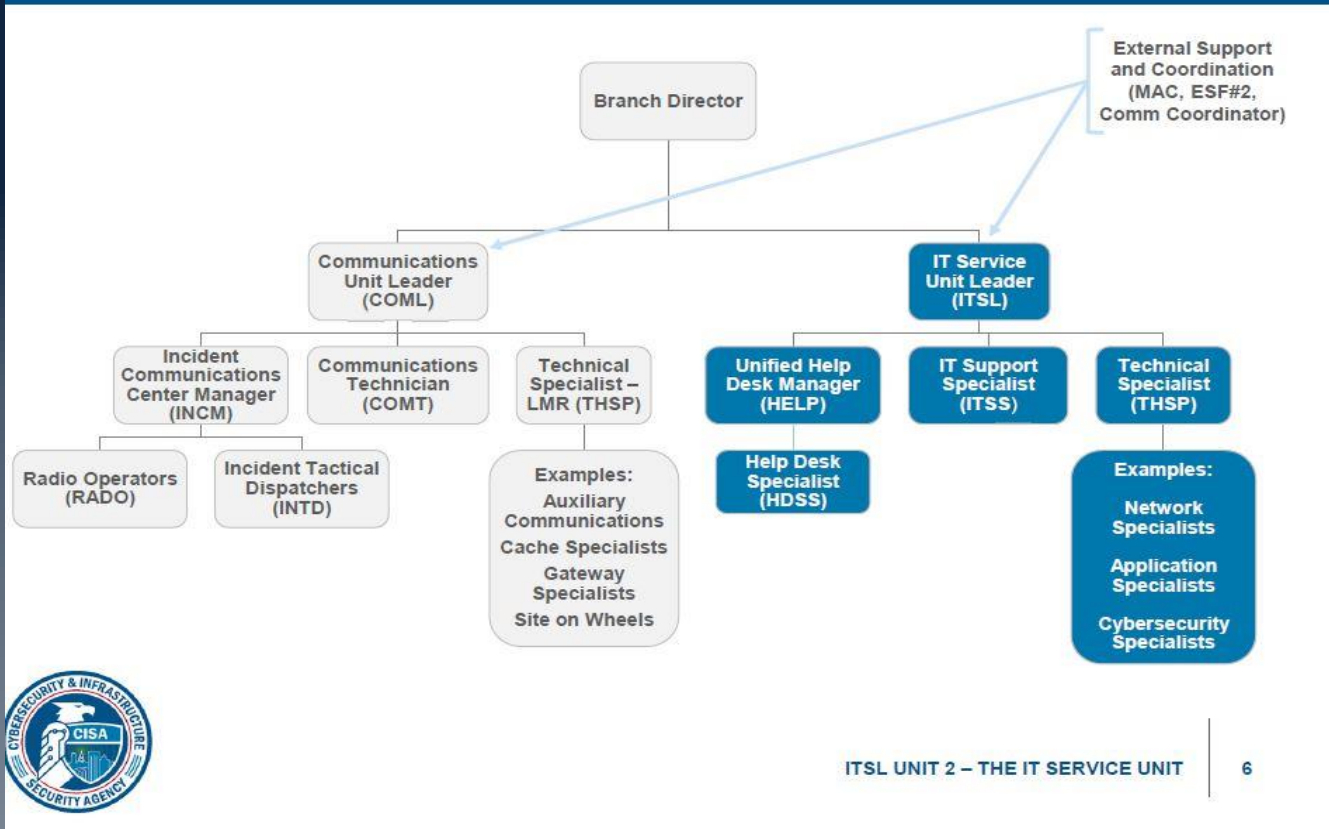
## Functional Responsibilities





# ICS Branch Structure

## Branch Organization





# Finding the right balance

- **Incident based support**
  - Wants vs. Needs
  - Current capabilities vs. Added capabilities
- **Finding the right capability to fill an identified gap.**
- **Achieving IT and cyber goals while supporting the incident.**



# IT based recovery actions

- Consider transition back to “normal operations”. When/how to demobilize IT assets/staff?
- Plan for disposition of data created during incident: who keeps what? where? how long?
- Disable firewall rules / accounts / access no longer needed.





# Questions?

**THANK YOU!**

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