

# *Minimizing the risk of communication failure*

*FCC workshop on network resiliency  
February 6, 2013*

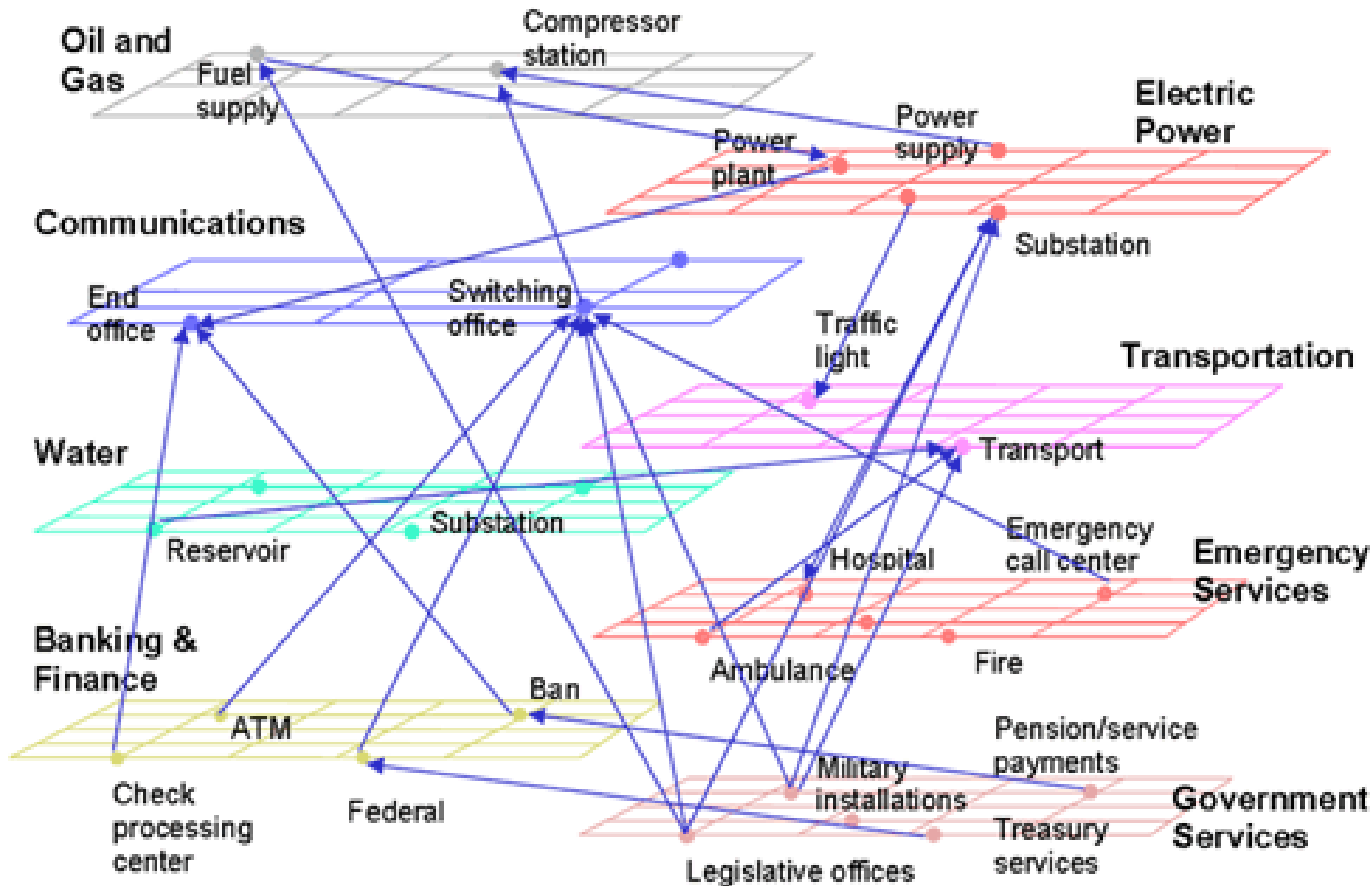
*John Thomas*

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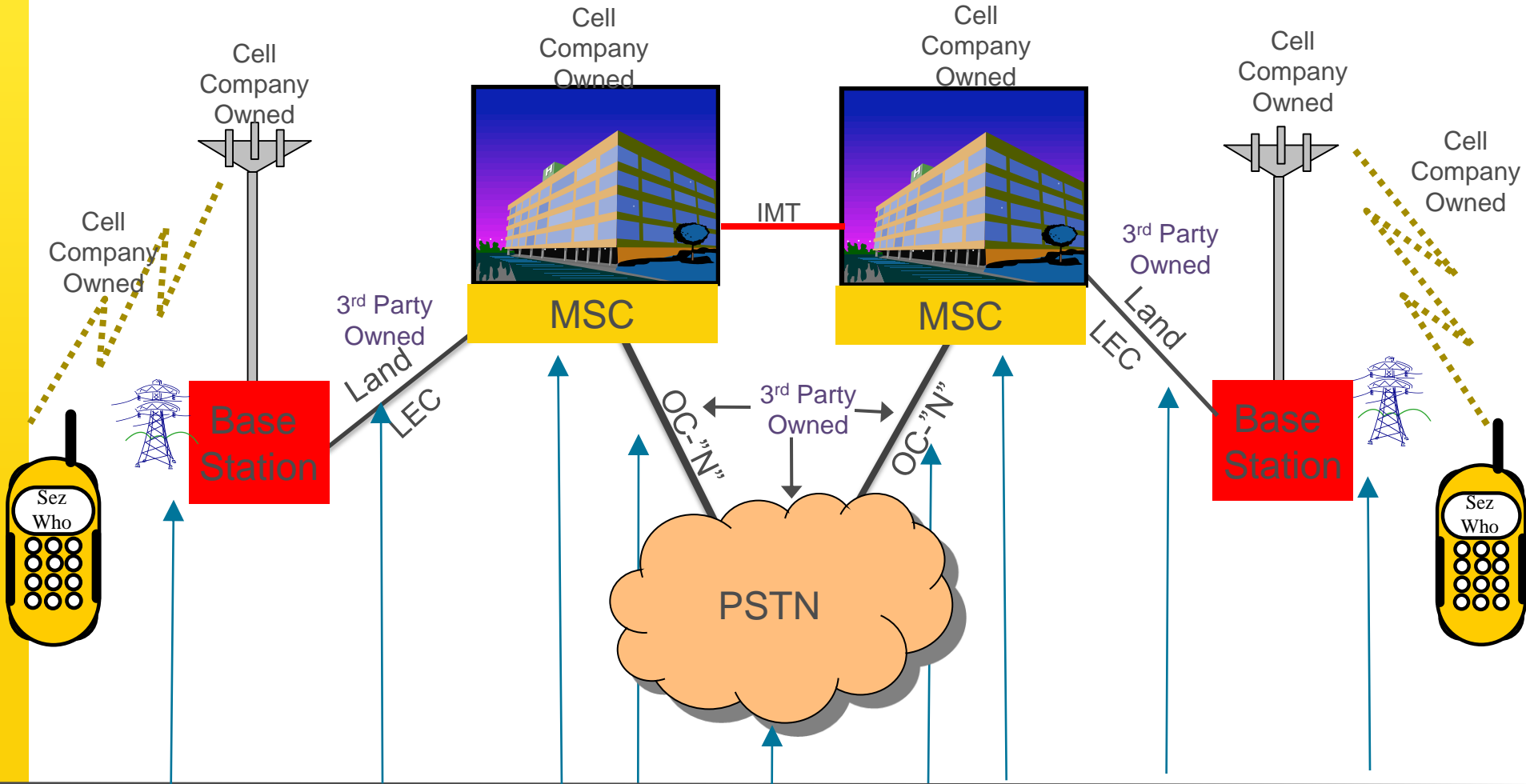
# Interdependencies of Infrastructures

*A Critical Infrastructure is one considered essential to the society and the economy.*



***Communications systems are the backbone for much of the critical infrastructure within the United States and many of the other infrastructure are completely dependent on communications systems to perform their missions.***

# Today Company 'X' Cellular Network



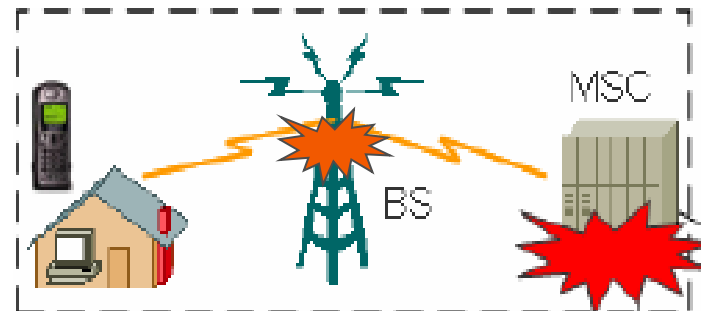
## Cellular Network Vulnerabilities (all carriers)

# When Disaster Strikes

*Cell phones Become Our Comfort Objects During Disaster*

*“Following the Earthquake tweets, text messages, emails, calls, voicemails—everything flew across the networks, draining phones, and granting people some comfort and peace”*

- - Rosa Golijan Gizmodo



# When Disaster Strikes

*Two very distinct forms of impact*

## 1. **Reduced coverage from:**

- ✓ *Large scale power outages*
- ✓ *Telco outages (T1 issues)*
- ✓ *Damage to infrastructure*





# When Disaster Strikes

*Two very distinct forms of impact*

## 2. Capacity Issues from:

- ✓ *Mass Calling events*
  - *Localized*
  - *Area wide*
- ✓ *Outages to surrounding sites*



# Overall Network Business Continuity Program

## **Mitigation/Prevention:**

- Risk Evaluation & Control
- Business Impact Analysis

## **Preparedness**

- Preparedness Metrics
- Scorecard and Reporting
- Drill & exercise program
- Training program
- Audit program
- Disaster Recovery Enablement Activities

## **Recognition & Response**

- Notifications, escalations, event declarations, set up of command & control in response to a foreseen or unforeseen incident
- Immediate steps to be taken to prepare for the event and reduce vulnerability (such as movement of generators or personnel).

## **Recovery & Restoration**

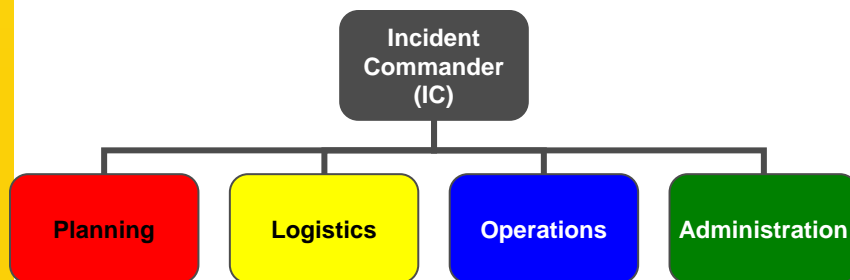
- AKA 'Disaster Recovery'
- Incident Management Plan



# A Disaster Response Organization



- Comprehensive and professional exercise program for all personnel
- Mandatory Disaster Preparedness / Recovery training for Employees
- Mature NIMS/ICS Based Command Structure and all relevant operating instructions and procedures “NEMS”
- Investment in tools & systems that enable improved operational efficiencies and reduce response times
- A reservist program that enables fast mobilization of resources, assets and infrastructure.





# Thank You

## *Contact Information*

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