NATIONAL COMMUNICATIONS SYSTEM

NCS

National Communications System

"Priority Telecommunications Services for Emergency Managers & First Responders"

Heartland Security Conference

Minneapolis, Minnesota

11 July 2007

Homeland Security

National Communications System

AGENDA

- **Overview of National Communications System**

- **Description of The Network Congestion Model**

- **Impact of Congestion On Emergency Incidents**

- **Description of NCS Priority Telecommunications Services**

- **Organizations and Individuals Who Qualify**

- **Administrative Support and Summary**

National Communications System

- The NCS works with the telecommunications industry to develop and deploy National Security and Emergency Preparedness telecommunications services

- Priority telecommunications services are available to qualifying federal, state, local, and tribal governments, plus selected industry organizations

- Priority telecommunications services are designed to augment existing emergency communications capabilities
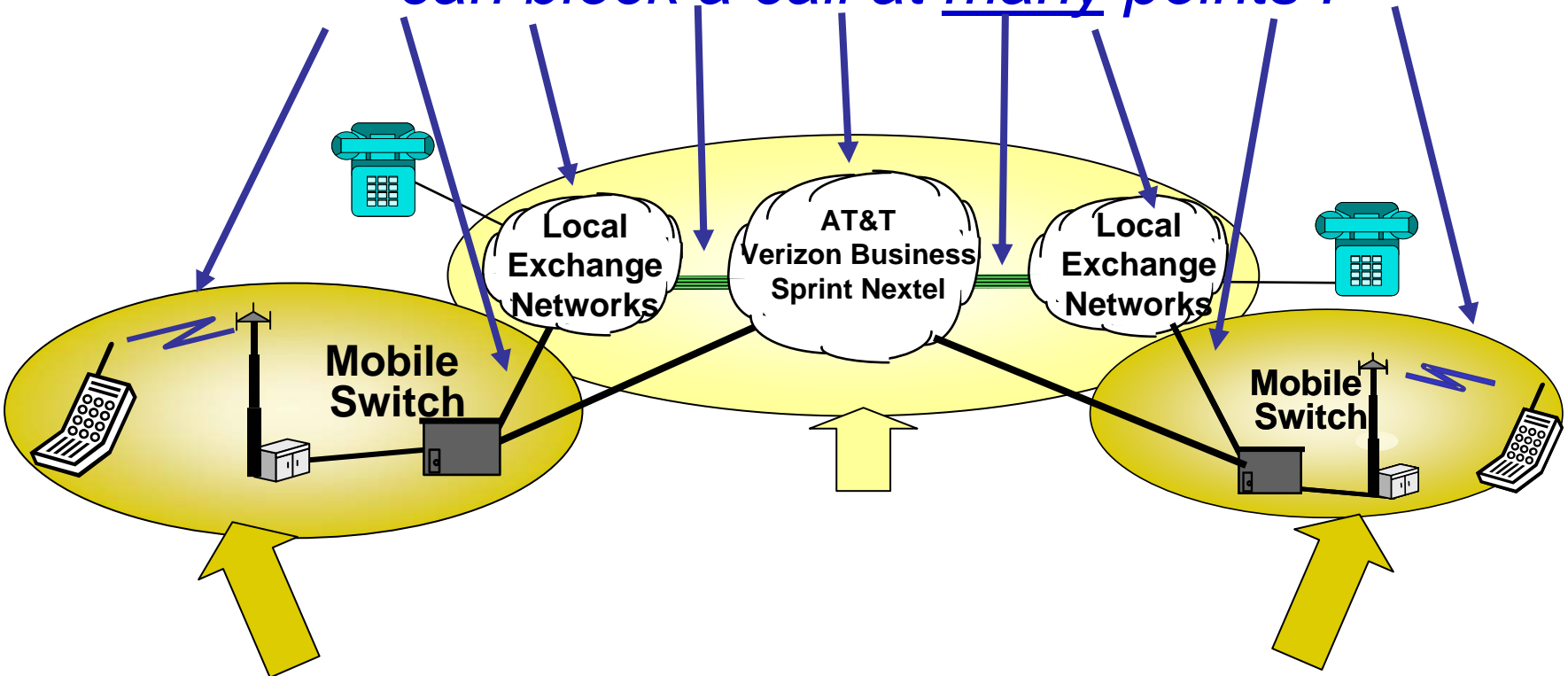
National Communications System

Priority Telecommunications Services

- **Government Emergency Telecommunications Service (GETS)**
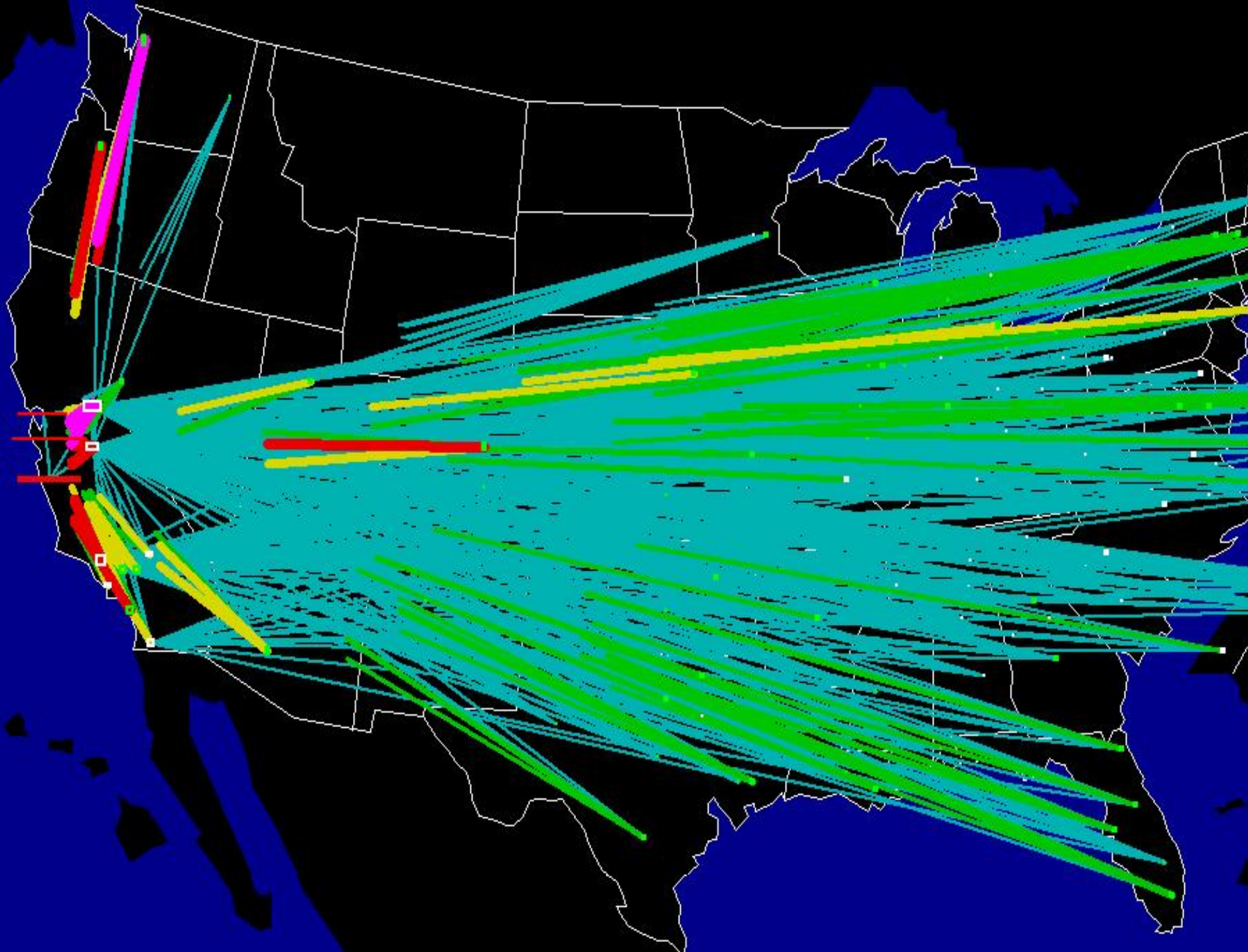
- **Wireless Priority Service (WPS)**

The Fundamental Issue:
Emergencies Cause Network Congestion

Congestion can block a call at <u>many</u> points !

Local Exchange Networks

AT&T Verizon Business Sprint Nextel

Local Exchange Networks

Mobile Switch

Mobile Switch

Priority Telecommunications Services *address congestion at call origination <u>and</u> call termination*

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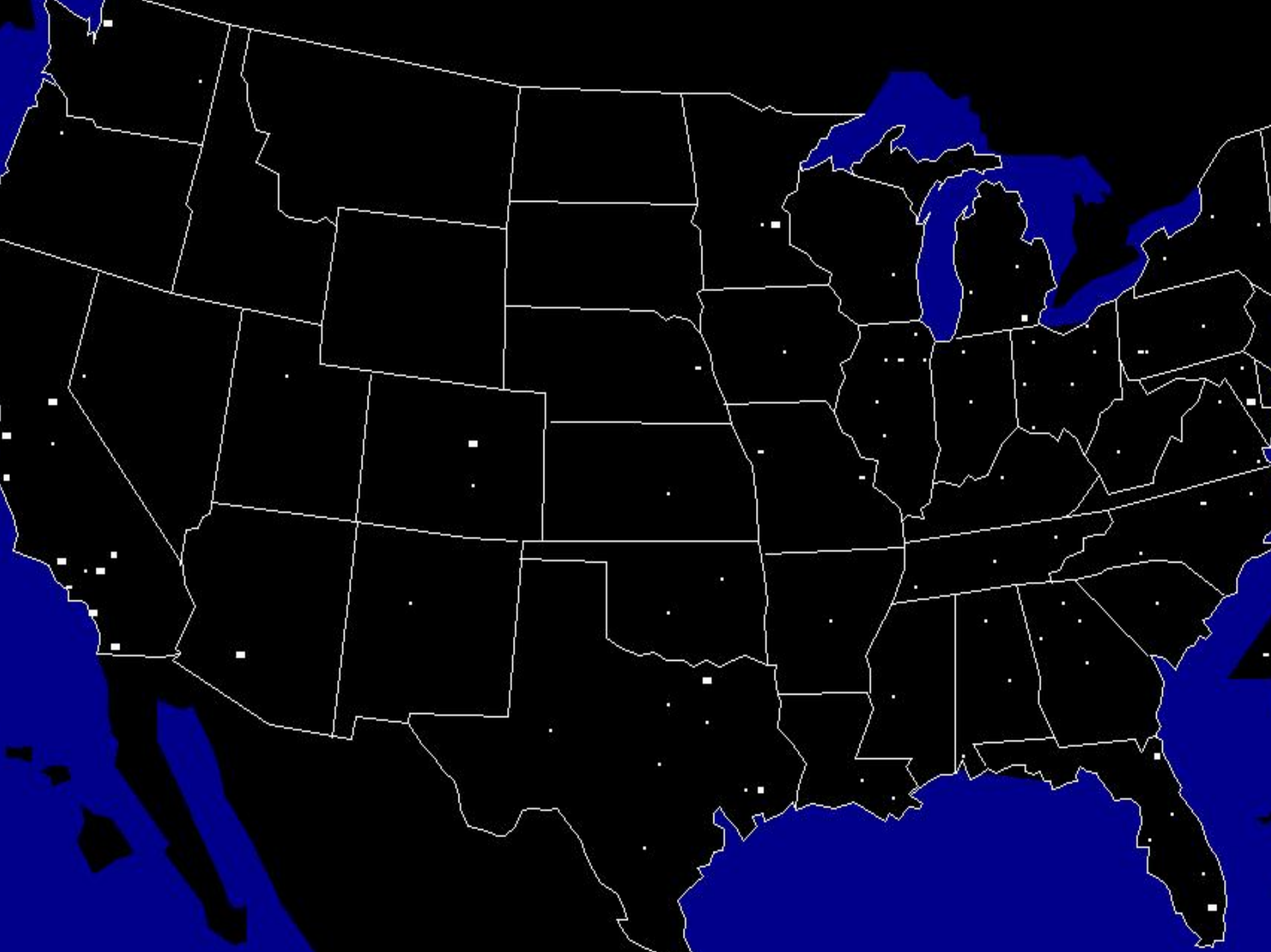
Hurricane Katrina

⊗ **Network Damage** ⊗

29 August 2005

- Damaged and Inoperative (Louisiana, Mississippi, and Alabama) Network Assets

    - More than 3 million customer phone lines
    - More than 1,000 cell sites
    - 38 9-1-1 centers
    - 33 central offices

Hurricane Rita Evacuation

Network Congestion!

- Heavy public calling out of area to families, friends, hotels

- Once the evacuation was underway, motorists made extraordinarily heavy use of cell phones

- TELCO networks invoked Automatic Network Management Controls – limiting inbound traffic

- Calls into 7 Area Codes began to get "Fast Busy" **3 days** before Hurricane Rita impacted the coast

EMERGENCY MANAGERS

What do you do . . .

. . . when the network is congested?

. . . when other communications resources are unavailable?

What are your options?

# Solutions: The GETS Calling Card and Wireless Priority Service

GETS is an emergency calling card service that can be used from <u>virtually any telephone</u> to provide priority for emergency calls
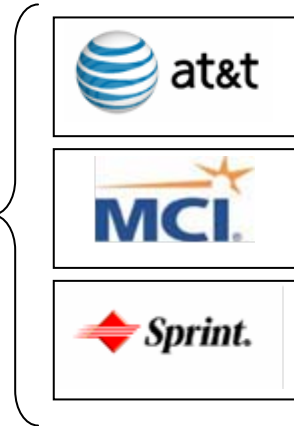
WPS is an add-on feature subscribed on a per cell phone basis – works with existing cell phones in WPS-equipped networks
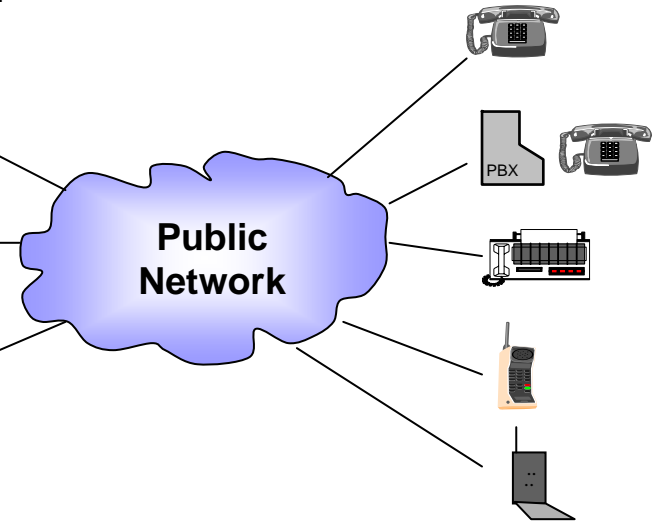
GETS Overview

1. Dial GETS Access Number from any phone (1-710-627-4387)

Home

Office
PBX

Fax

Satellite

Cell

Local Switch

Mobile Switch
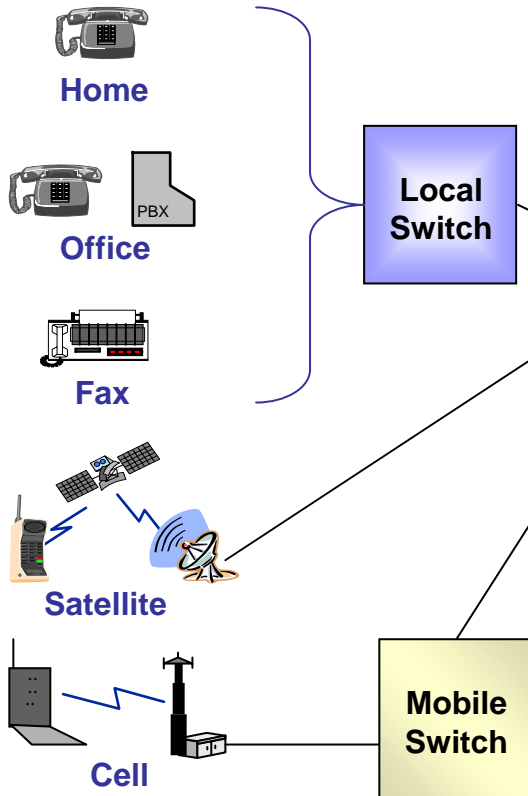
2. Network routes call to a GETS Carrier. As you are prompted, enter your PIN then Destination Number

at&t

MCI

Sprint

3. Network routes your call to the Destination Number

Public Network

PBX

Use GETS whenever you hear a fast busy signal, "All circuits busy" announcement, or otherwise cannot complete your call

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Making a GETS Call

GETS Access Number

Dial 1-710-NCS-GETS (627-4387)
At the tone, enter your PIN.
When prompted, dial your destination number (area code + number).

If you cannot complete a call, use a different long distance carrier:

GETS:

AT&T: 1-888-288-4387   -or- 1010 + 288
MCI: 1-800-900-4387   -or- 1010 + 222   +1-710-627-4387
Sprint: 1-800-257-8373   -or- 1010 + 333

Toll Free number for each GETS carrier (backup)

WPS:
From a Wireless Priority Service enabled device:
Dial *272 before any call, including a GETS call.

Assistance: For help or to report trouble, dial 1-800-818-GETS (4387) or 1-703-818-GETS (4387).

Test Calls: Make periodic GETS calls to 1-703-818-3924.

Toll Free User Assistance number (24x7)

US GOVERNMENT PROPERTY. If found, return to:
NCS (N2), 701 South Court House Road, Arlington, VA 22204-2198
WARNING: For Official Use Only by Authorized Personnel.

Government Emergency Telecommunications Service

12 Digit Personal Identification Number (PIN)

1234 5678 9012

User Name and Organization

Name:

Organization:

1. **Dial GETS Access Number**

2. **Listen for tone, then enter your PIN (do not enter # after last digit)**

3. **Listen for voice prompt: "Please enter your destination number now."**

4. **Enter the destination number (omit the 1 before the area code)**

5. **You will hear an announcement "You are using GETS, AT&T/MCI/Sprint"**

6. **Network will route your call to the destination telephone number**

Periods of silence are normal – particularly if call is queued during heavy congestion. Calls may take 30 to 90 seconds to complete

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Wireless Priority Service (WPS)

WPS is an add-on feature subscribed on a per-cell phone basis to provide priority for emergency calls made from cell phones. WPS works with existing cell phones in WPS-equipped networks ..
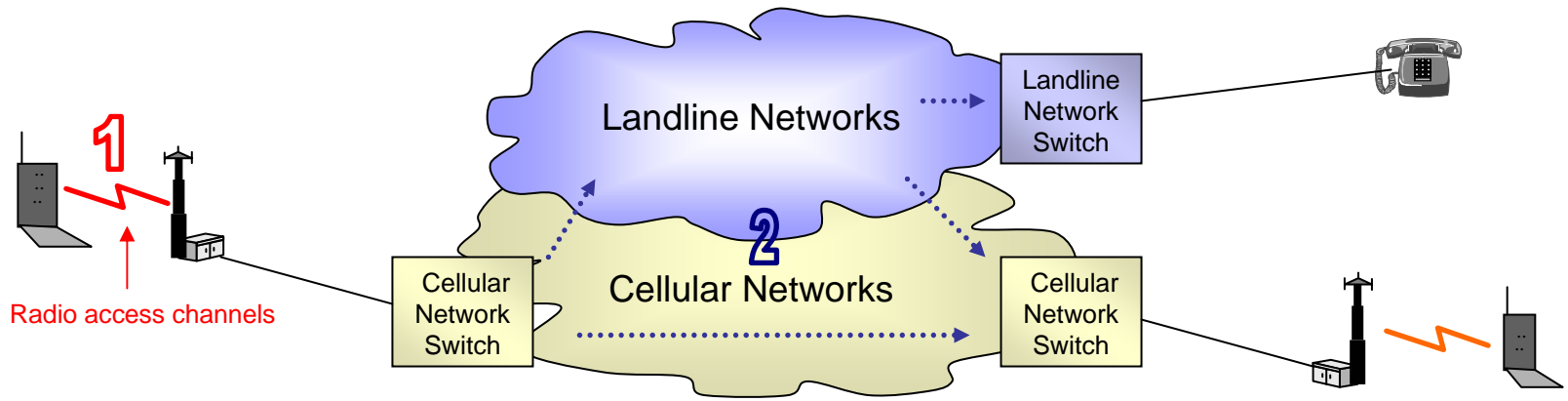
1 WPS provides priority access to the radio channel where local area congestion can often block calls

2 WPS automatically provides priority call processing across landline and cellular networks

Making a WPS Call

1. **Confirm radio signal** .ı‍ıll

2. **Enter ✱272 + destination telephone number and push SEND key (example: ✱272 703 818 4387 - SEND)**

3. **Network will route call to the destination telephone number**

- **Screen messages** vary among carriers and mobile phone models.

- WPS calls show same screen messages as regular calls

- While WPS calls are in queue screen message usually displays "Calling + Destination Number"

- **Audible alerts** vary among carriers and mobile phone models

- During WPS call set-up you may hear alternating periods of ringing and silence

- Busy signal, announcement, or extended silence indicates call cannot complete

Periods of continuous ringing and/or silence may occur – particularly if call is queued at several points during heavy congestion. Calls may take 30 to 90 seconds to complete

Hurricane Katrina

29 August 2005

- Damaged and Inoperative (Louisiana, Mississippi, and Alabama)
  - More than 3 million customer phone lines
  - More than 1,000 cell sites
  - 38 9-1-1 centers
  - 33 central offices

- During the period 29 Aug – 9 Sep, there were 32,829 GETS calls into or out of the Gulf Coast region. **95% routed successfully.**
  - The New Orleans and Baton Rouge areas originated 33% of all calls and were the final destination for 26%

- There were 3204 attempted WPS calls -- **2970 (93%) were assigned a radio channel**

Hurricane Rita Evacuation

Network Congestion!

- Heavy public calling out of area to families, friends, hotels
- Once the evacuation was underway, motorists made extraordinarily heavy use of cell phones
- TELCO networks invoked Automatic Network Management Controls – limiting inbound traffic
- Calls into 7 area codes began to get "Fast Busy" **3 days** before Hurricane Rita impacted the coast

- **GETS and WPS ✲272 calls went through immediately**

  from NCS North Texas operating center every time

Who Should Have GETS/WPS?

Organizations

- Cities/Counties/States/Districts
- Offices of Emergency Services
- Police/Sheriff/Fire
- Water and Power, Telecom
- Irrigation Districts/Flood Control
- Public Health
- Hospitals/Medical Services
- Transit Agencies
- Ports/Airports
- Utilities/Transportation and other Industries
- Search and Rescue
- School and College Districts
- Critical Infrastructure Suppliers
- Agencies included in County Emergency Management Plans

Individuals

- Mayor, Council Members, Supervisors
- City Manager and staff
- Media Relations
- OES Management and staff
- Police/Fire Chiefs and staff
- Police/Fire Field Command
- Department Heads and staff
- Individuals with an Emergency Preparedness and Response role.

Locations/Functions

- EOC Work Stations
- Back-up EOC
- City and County Operations Centers
- PSAPs (911)
- Computer/IT Center
- Police/Fire Dispatch
- Remote Offices/Stations
- Power/Pump Stations
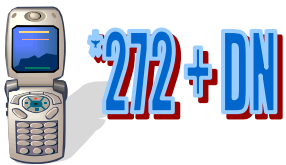- Shelters
- Command Vehicles

Priority Services Administration

GETS

- No charge for GETS cards
- Accounts are established through NCS on-line ordering system
- Service available nationwide in public switched telecommunications networks

WPS

- Participating Carriers: AT&T, Sprint/Nextel, T-Mobile, Verizon Wireless, Southern LINC, Edge Wireless
- Ordered on a per-phone basis through NCS on-line ordering system
- Charges apply to WPS services
- Billed by the carrier on the cell phone invoice/bill

Emergency Preparedness Challenge

"Prediction is very difficult,
   especially if it's about the future."

- Niels Bohr

Nobel Laureate in Physics

Is Your Agency Fully Prepared?

- Are GETS and WPS part of your agency's emergency planning, preparation, and drills?

- Where can GETS and WPS augment existing emergency communications capabilities?

- Which individuals, locations, and functions are candidates for GETS and WPS?

Information Resources

For more information:

www.ncs.gov
www.gets.ncs.gov
www.wps.ncs.gov

Lee Johnson
Regional Outreach Coordinator
303.741.4782 (Office)
Lee.Johnson@associates.dhs.gov

For assistance setting up on-line accounts and ordering:

Priority Telecommunications Service Center: **1-866-627-2255**
- 8am to 6pm Eastern Time
- Follow voice prompts for each service