“Priority Telecommunications Services for Emergency Managers & First Responders”

Heartland Security Conference

Minneapolis, Minnesota

11 July 2007
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.
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 many points!

Priority Telecommunications Services address congestion at call origination and call termination
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
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 virtually any telephone 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)

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

3. Network routes your call to the Destination Number

Use GETS whenever you hear a fast busy signal, “All circuits busy” announcement, or otherwise cannot complete your call
Making a GETS Call

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
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.

Diagram:
- Radio access channels
- Landline Networks
- Cellular Networks
- Switches
- WPS automatic priority call processing

Legend:
- Red box with number 1
- Red box with number 2
Making a WPS Call

1. Confirm radio signal

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

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- 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
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- 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

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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