

Best Practices for Enhancing Emergency and Disaster Preparedness and Restoration

The wireless industry strives to meet Americans' wireless communications needs –including during emergencies or disasters when communications can be most important. Effective initiatives for wireless network resiliency and recovery require coordination among key stakeholders – including wireless providers, federal, state, and local government representatives, public safety, and consumers.

To further these efforts, leading wireless providers and CTIA established the Wireless Network Resiliency Cooperative Framework (Framework) to enhance voluntary coordination and information sharing during and after emergencies and disasters.

As part of the Framework, representatives from the wireless industry and local government public safety convened to develop best practices to aid voluntary coordination efforts between wireless providers and local governments. The drafters recognize individual coordination efforts will vary depending upon a number of factors, including the scope of the emergency or disaster, the nature of service providers' networks, the individualized circumstances involving local authority to perform the coordination activities, and the resources available to the parties. Rather than rigid directives, these best practices are designed to serve as flexible tools service providers and local governments can utilize to coordinate joint efforts to maintain service continuity, promote resiliency efforts, and expedite restoration activities during and after an emergency or disaster. Stakeholders identified best practices in three categories: (1) planning before disasters and emergencies occur; (2) facilitating coordination during and after emergencies and disasters; and (3) creating education awareness campaigns.

Planning Before Disasters and Emergencies Occur

In many communities today, wireless providers and local government representatives partner in coordinating responses to disasters and emergencies that affect wireless networks. Advance planning is a key element. Planning can help mitigate the effects of disasters and emergencies and expedite restoration of wireless services where necessary.

The following best practices can facilitate coordination in the areas of local ordinances, access to staging areas, and standardized credentialing. Coordination in each of these areas will expedite service restoration before, during, and after large-scale disasters and emergencies.

Local and State Processes that Enable Resiliency Preparedness

Local processes (e.g., zoning or permitting requirements) are important to consider in network resiliency preparedness. Wireless providers and local governments can work together to ensure that such processes facilitate resiliency efforts.

- Local governments should ensure that their ordinances and policies are accessible and available so that service providers and their agents are aware of relevant policies that could impact resiliency preparedness and emergency response.

- Wireless providers, local governments, and states should develop and maintain an index of the zoning and related local ordinances that could affect service restoration efforts and, where permitted by law, identify an accessible, available, and expedited process for obtaining a waiver. This index should identify the permitting agency and provide a link to each agency's website and contact information for the agency.
- Wireless providers and local governments should establish a coordination plan, using consistent elements and format, to enable restoration during and in the aftermath of an emergency or disaster. The coordination plan should include, for example, protocols to address:
 - **Permitting:** During a declared emergency, local governments should consider streamlining permitting processes to allow critical infrastructure providers (including wireless providers) expeditious access to restore services;
 - **Travel Restrictions:** If travel restrictions are activated (e.g., road closures, tunnel restrictions, etc.), state and local governments should identify permissive or detour routes for certain vehicles (e.g., fuel trucks) and any changes to toll collection policies, if applicable; and
 - **Communications:** Local governments and wireless providers should utilize notification systems to timely provide accurate information to each other and relevant stakeholders on emergency and disaster situations, including outage and restoration information provided by wireless providers for that purpose.

Access to Staging Areas

An effective and efficient staging area is critical to ensuring recovery resources are accessible in order to maintain or restore wireless service following an emergency or disaster. Designing staging areas to optimize access by wireless providers will help protect, mitigate, and restore wireless services as quickly as possible.

- Wireless providers and local government representatives should develop Disaster Recovery Plans identifying critical network facilities and potential staging areas to facilitate the process for restoring service for wireless networks. Disaster Recovery Plans should:
 - Identify staging areas that (1) provide access to major transportation arteries allowing for large vehicles, (2) afford adequate space for offloading (including via cranes) and storage of equipment and assembly of large restoral teams, and (3) comply with Department of Transportation and environmental regulations for storing fuel and generators.
 - Identify vendors who can provide staging areas for critical infrastructure;
 - In the event of publicly-owned staging areas, identify access to local government resources (e.g., water supplies, food distributions, electricity, etc.) and any permitting and approvals that would be required; and
 - In the event of network facilities that are located in privately-owned facilities, coordinate security and restoration efforts with the property manager or landlord.

Standardized Credentialing for Individuals Participating in Recovery Efforts

Credentialing programs help ensure access to staging areas and affected locations for individuals participating in wireless restoration efforts. By standardizing these programs, local governments and wireless providers can streamline efforts to ensure appropriate access for any emergency or disaster.

- Appropriate government agencies should, where possible, develop multi-jurisdictional credentialing templates and qualifications consistent with guidance from the Federal Emergency Management Agency. Credentialing methods that meet the REAL ID Act should be considered where feasible.

- Similarly, wireless providers should review the Federal Emergency Management Agency’s guidance and encourage credentialing documentation/badges to be applied consistently in all geographic areas, where possible. Wireless providers should take steps to ensure that local governments are familiar with their credentialing materials to help expedite obtaining authorizations necessary to access areas. Credentialing methods that meet the requirements of the REAL ID Act should be encouraged where feasible.
- Wireless providers should designate management personnel tasked with obtaining credentials from local governments and serving as designated points of contact for local governments. Wireless providers should clearly identify the credentials and responsibilities of employees and contractors to allow for the timely and accurate issuance of access credentials.
- Wireless providers should, where programs exist, coordinate with local, state, and/or federal emergency management and law enforcement agencies for pre-credentialing to help facilitate access by service providers’ employees, agents, and third party contractors or vendors to restricted areas during a disaster or emergency.
- Wireless providers that are tenants of a telecom hotel should provide to the property manager a current list of all persons authorized for access, provide periodic updates to this list, and provide instructions for exceptions (e.g., emergency restoration personnel).
- Wireless providers and local, state, and federal authorities should establish policies and procedures related to site access control to provide credentialing exception access (e.g., large-scale emergency and disaster response, forgotten credential, etc.).

Facilitating Coordination During and After Emergencies and Disasters

In the midst and in the aftermath of an emergency or disaster, meaningful coordination between wireless providers and local governments can minimize wireless service outages. The following best practices can help streamline these coordination efforts.

- Wireless providers and local governments should coordinate access to impacted areas for service restoration through a “playbook” or checklist that:
 - Designates the lead government agency or agencies charged with granting access and (if needed) providing escorts to affected areas;
 - Expedites service providers’ access to affected areas to perform these tasks;
 - Ensures that service providers do not adversely impact local government and public safety rescue/recovery efforts; and
 - Requires providers to follow the local government’s guidelines, including any requirement that providers “check in/out” when entering and leaving the impacted area.
- Subject to space and resource availability, wireless providers should designate personnel to serve as liaisons to local emergency operations centers to facilitate coordination during and after emergencies and disasters.
- Wireless providers’ employees, agents, and third party contractors or vendors should obtain the necessary state and local licenses and permits to perform their specified functions (e.g., facilities repair, fuel delivery, tree removal, etc.) prior to seeking authorization for access.
- Wireless providers should identify to the appropriate local government contact(s) the desired manner in which resources will be delivered (e.g., air (including unmanned aerial vehicles), highway, boat, etc.).
- Local governments should identify to relevant stakeholders the geographic areas (e.g., major roadways, areas near government or health care facilities, etc.) of most concern as early as possible in restoration efforts. Similarly,

local governments should be clear where access to affected areas is prohibited or conditioned upon certain limitations (e.g. where access is permitted with law enforcement accompaniment). While taking these affected areas into consideration for restoration efforts, wireless providers retain discretion to make decisions regarding allocation of their resources and assets to restore service to the public most effectively.

- Where local governments may provide optional support for critical infrastructure restoration, local governments should disclose the circumstances under which such support may be available and any limitations, including liability limitations and cost reimbursement.
- Wireless providers and local governments should develop access procedures that are not solely dependent upon electronic communications in the event that electronic communications are not available during or after an emergency or disaster.
- Appropriate government agencies should identify and communicate designated locations and backup locations for obtaining necessary authorizations during and after an emergency or disaster.
- Local government and public safety officials should utilize methods and protocols to allow for local and state offices of emergency management to communicate important information to emergency response personnel regarding service restoration activities of wireless providers and their agents.
- As noted above, outage and restoration information is crucial to emergency responders who need to determine where to deploy critical resources. Wireless providers should develop communications procedures to share information about outages and service restoration activities with local governments and emergency responders during and after an emergency or disaster.
- As noted above, wireless providers, local governments, and states should develop and maintain an index of the zoning and related local ordinances that could affect service restoration efforts.
- As noted above, credentialing is a critical part of coordinating service restoration efforts. Wireless providers and local governments should carefully review the best practices for credentialing in the preceding section to facilitate coordination during and after an emergency or disaster.

Creating Education Awareness Campaigns

During an emergency or disaster, wireless providers and local government personnel need to understand one another's operational capabilities. This mutual understanding will allow for collaboration and partnership that promotes resiliency and restoration of wireless services.

Similarly, educating the general public about wireless resiliency preparedness can help citizens understand how to most effectively access information and utilize wireless networks during emergencies and disasters. The following best practices can help achieve these complementary objectives.

Educating Local Government Personnel and Wireless Providers

- Wireless providers and local government personnel, as well as state offices of emergency management, should obtain appropriate contact information for communications with one another during times of disaster recovery or emergency response. Contact information should be reviewed and updated as necessary, and at least semiannually.
- Wireless providers and local government personnel should explore methods to facilitate resource information sharing during and immediately following disasters and emergencies. Resource sharing should include access numbers to wireless provider emergency response points of contact.

- Wireless providers should make available to local emergency management personnel information that describes the process that local stakeholders should use to ensure that their requests for assistance can be considered along with broader carrier service recovery efforts. Wireless providers should also provide information regarding the types of solutions and resources that they may use immediately following a disaster or emergency, but emphasize that requests for assistance should be in the form of desired outcomes, rather than for specific resources or solutions.
- Where possible, wireless providers and local and state government personnel should make themselves available to conduct mock emergency response exercises.
- As noted above in the first section, a comprehensive understanding of local and state ordinances is a critical part of the education process. Wireless providers and local government personnel, as well as state offices of emergency management, should work together to ensure that all stakeholders have a complete understanding of the relevant policies that could impact resiliency preparedness and response.

Educating the Public

- Public safety alerting services should be used to convey vital public safety information to the public. The U.S. Department of Homeland Security, with input from other federal and non-federal stakeholders, should develop guidelines for determining priority for different message information types (e.g., boil water, after shock warnings, etc.).
- Wireless providers and local government personnel should establish communications mechanisms and periodic meetings to promote community awareness of recovery planning and long-term resiliency plans.
- Wireless providers and local government personnel should promote awareness of best practices for accessing wireless networks before, during and immediately following an emergency or disaster event. For example, citizens should understand that using text services instead of trying to make a voice call requires fewer systems resources and could improve connectivity during or in the aftermath of a disaster or emergency.