



UScellular® EMERGENCY RESPONSE SERVICES CUSTOMER GUIDE



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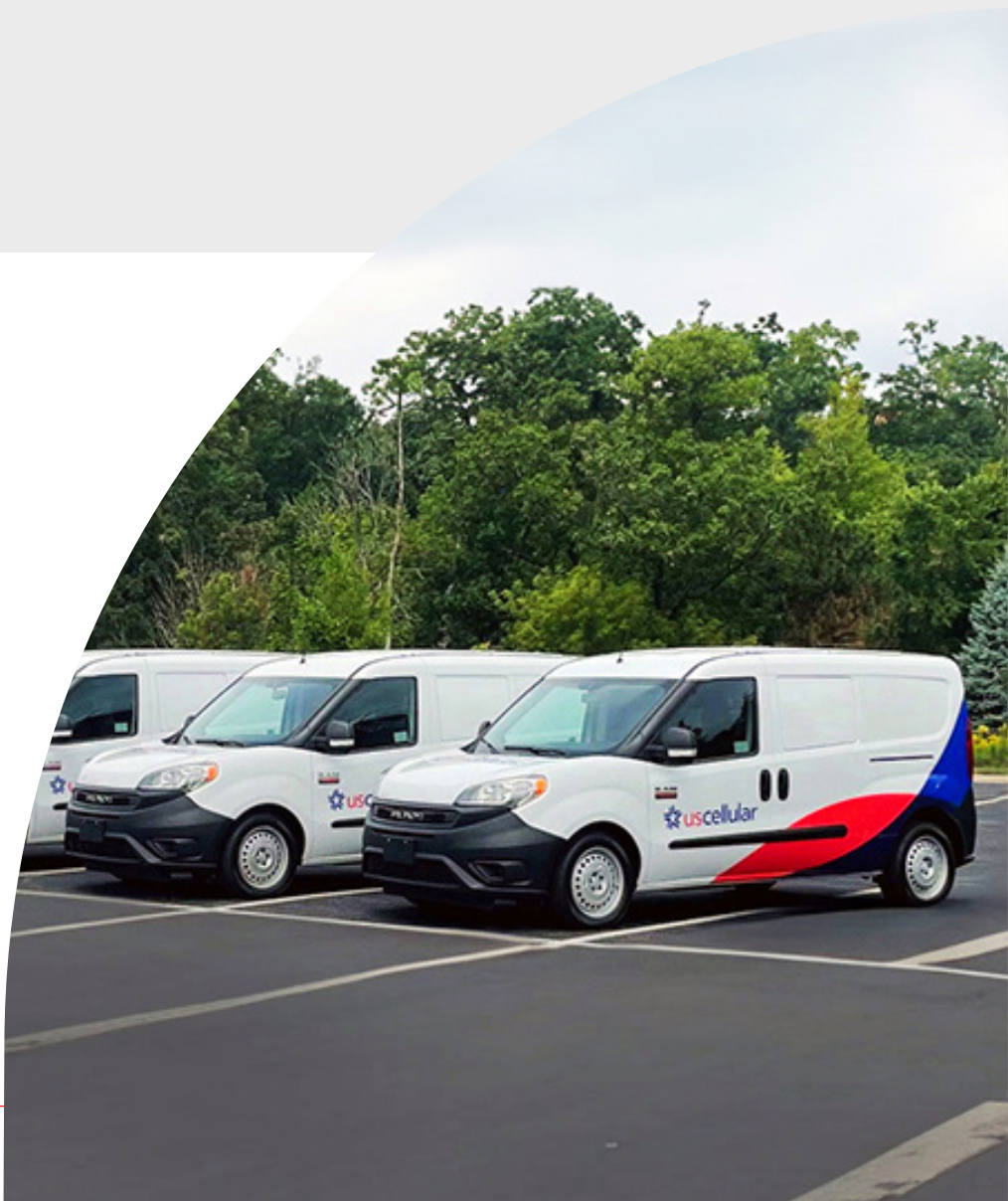
Supporting You in an Emergency

In times of crisis, public safety teams work tirelessly to protect and serve their communities, battling wildfires, aiding the injured, maintaining order and keeping the peace to safeguard those affected. Reliable communication and access to critical resources are paramount to this success.

Communities count on first responders to keep them safe, and first responders depend on critical connectivity to reliably serve their communities. The UScellular® mission is to keep customers connected at all times and, during times of peril, to always be available.

This document discusses the many measures UScellular employs to keep you connected and your constituents safe. During an emergency, we are in your community, by your side, to ensure that you can communicate with your team. Our disaster response staff works diligently to provide backup connectivity and provisions to first responders and the public when other options fail. UScellular is your neighbor, ready to take charge to protect the communities in which we live too.

To learn more about UScellular, please visit [**our website**](#).





Priority and Preemption

Your communications must take priority during an emergency. But with so much cellular data traffic, staying connected is a major concern for first responders and critical support teams. Whether it's a large event or an emergency, your response teams need reliable voice and data to do their jobs.

UScellular uses Wireless Priority Services (WPS) and Data Priority Services (DPS) to prioritize communication traffic for public safety agencies during emergencies and high-traffic events. These services ensure that agencies' calls and data transmissions receive preferential treatment over other network traffic. This prioritization is essential for maintaining seamless communication channels, enabling swift decision-making and optimizing resource allocation during crises.

UScellular recognizes your voice and data and prioritizes your emergency responders with:

Priority Access

First responder voice and data is pushed to the front of the line, even during high-traffic events.

Preemption Over Non-Critical Data

UScellular temporarily reallocates lower priority data so your critical communications go through seamlessly.

Increased Safety

Critical infrastructure teams have uninterrupted access to essential information they need in real time, allowing them to make informed decisions and respond quickly to emergencies.

Improved Efficiency with Preemption

Your channels are open exclusively to critical teams, allowing them to coordinate efforts without disruption.

Speak with your local public safety expert to learn more about Priority and Preemption or call us at 866-616-5587.

Disaster Response Preparation

UScellular partners with public safety teams to operate and maintain a resilient network. Our teams vigilantly monitor all risks to network reliability and performance, and when disaster strikes, we are prepared to respond.

UScellular's disaster response experts have designed robust processes to respond to events of any scale, from small, localized events to regional or national-level events. The Access Operations Disaster Recovery (AODR) Team is established at the field level and works in conjunction with the National Network Operations Center (NNOC) during highly impactful events. These teams coordinate company resources to keep our customers connected and provide accurate reporting to all levels of the business, as well as external entities.

In times of outages or other crises, we rely on our Network Hardening protocol.

- Typical RF design density supports overlapping coverage for one to two full cell site outages
- UScellular deploys the use of redundant physical and logical transport routing that automatically detects and reroutes traffic during a failure
- UScellular cell sites are engineered to a standard of providing them with a battery string offering a minimum 4 hours battery backup in case of a power outage
- Our maintenance program for cell site battery plants informs us of real-time performance for battery strings in the case of a power outage
- Cell sites classified as a "hub" having 4 or more cell sites attached to it have a permanent generator solution that automatically transfers power supply to that generator in case of a power outage
- 44% of all UScellular cell sites have a permanent generator on site, which automatically becomes operational in case commercial power to that cell site has been interrupted
- In case of a lost tower, UScellular has a network density plan allowing for network coverage in case of a loss from one to two cell site locations



In order to preserve our network in times of emergencies, UScellular also takes the following proactive steps:



Architecture

No single point of failure: UScellular has designed its network availability to reach 99.999%. This includes automatic failover of key network elements to provide swift and typically undetectable service recovery to customers.

Redundancy

Software: Frequent schedule backups of network elements are stored locally and in georedundant locations to secure a solid rollback.

Hardware: Equipment spares are stored locally to provide quick swaps in the event of a hardware failure.

Power: Batteries and generators provide a backup source of power should the primary source become temporarily interrupted.

Backhaul Providers: Multiple backhaul providers create diversity and increase uptime of services in hubs sites should a disaster occur.

Preventative Maintenance, Planning and Scheduled Upgrades

Proactive Maintenance: Scheduled upgrades, system patches, disaster recovery drills and proactive maintenance keep mission-critical elements up to date. These improve efficiency, ensure availability and prevent easily avoidable incidents.

Capacity Planning: Capacity planning is performed on hardware such as network elements, generators, batteries, site utilization, antenna sweeps, and traffic modeling to effectively maintain the expectations of our network.

Advance Technology Lab

Network Lab: Providing a test bed for new software, configurations or trials, Network Lab significantly reduces instability and incidents to our production network.

Device Lab: The device lab provides the ability to perform a full device certification and new feature enablement testing.

Review Boards

UScellular utilizes several review boards made up of SMEs, Lead Engineers, and Leaders to monitor and assess all changes to be loaded into the network. These boards consist of Technical Reviews to verify the accuracy, function, impacts, and performance of the engineering changes, and Change Reviews to monitor interactions between multiple changes and avoid any conflicts or dependencies of service impacting changes.

Network Continuity

UScellular provides a ubiquitous 4G (LTE broadband, CAT -M, NBIoT) national footprint, utilizing roaming agreements with multiple mobile network operators located in the U.S. We have GSM roaming capabilities via a sponsored roaming platform to establish and maintain intercarrier roaming relationships and agreements. As a provider of critical coverage in rural locations, we are positioned as an attractive partner to Tier 1 carriers and other network operators.



This strategy ensures that our customers benefit from a robust, uninterrupted service, irrespective of their geographical location within the continental U.S. USCellular's service offering is designed to ensure comprehensive coverage.

Our disaster recovery process includes:

- National Network Operations Center monitoring network alarming on a 24/7 basis: Due to our network surveillance capabilities along with a dedicated Operations team who operates on a 24/7 basis, we know the status of our network on a cell site level at all times. This allows us to understand the impact due outage from a single cell site to a large cluster of cell sites
- USCellular has in-market Network Operations teams who own the operations and maintenance of the cellular network infrastructure including outage restoral responsibilities
- Comprehensive national disaster recovery program to include:
 - Early storm warning monitoring/communication plan
 - Pre-staging network restoral resources prior to onset of threat
- Procedures for setting up a command-and-control center to manage network restoral efforts. Each Operations team has a fleet of portable generators that are taken to a cell site with no commercial power to supply power until commercial power is restored
 - USCellular has nearly 300 total portable generators available for deployment
 - USCellular has contracts in place with portable generator providers allowing for securing and shipping portable generators nationally for pre-event deployment
- USCellular has a national tower inspection and repair maintenance program in alignment with industry standards

Deployable Assets

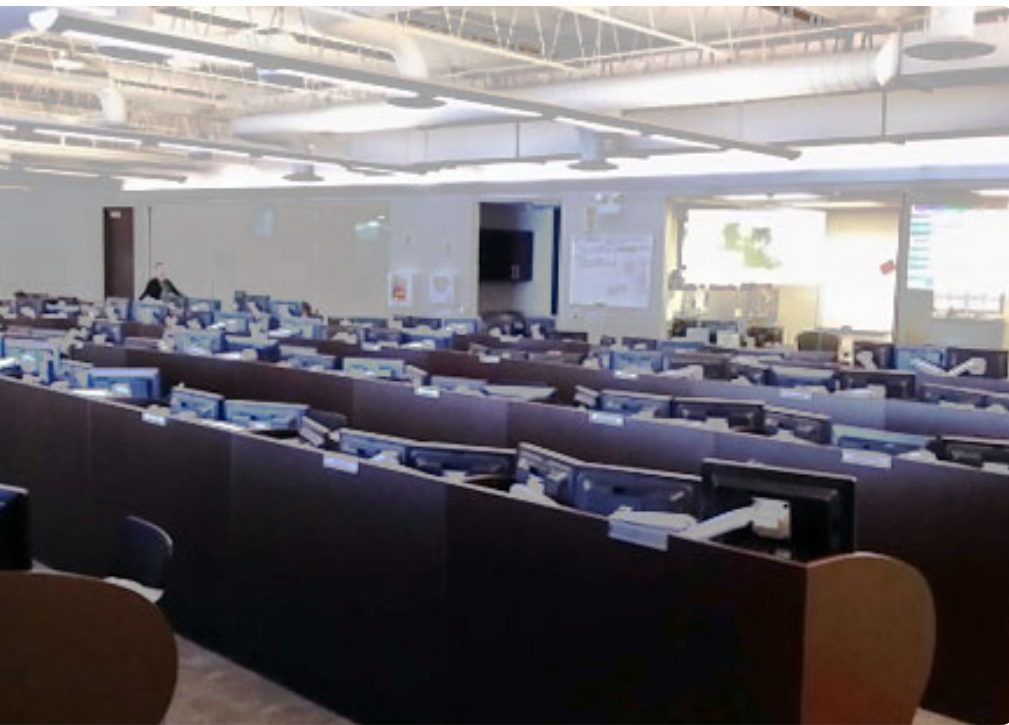
UScellular maintains a robust inventory of assets designed to strengthen connectivity and keep our network available when it matters most. These assets include thousands of permanent and portable generators that provide backup power when commercial power is interrupted, Alternative Access Vehicles (AAVs) to access remote locations, and Cells on Light Truck (COLTs) that may be deployed to provide temporary coverage in the event of network infrastructure damage or temporary high-traffic events.

Although quick disaster response, resilient network design, comprehensive tower inspection and maintenance program make frequent COLT deployments unnecessary, these assets can be deployed quickly and efficiently as needed to serve the public.

Cells on Light Truck (COLTs)

- In the case where a COLT may be required – the Engineering and Operations teams take a proactive approach on COLT deployment, and it is based on potential duration of the outage and surrounding cell site coverage
- UScellular currently has 24 COLTs available and once a decision to deploy has been made, the cross functional teams will work with our key business partners to keep them up to date on the deployment schedule
- Ability to deploy a COLT within a 12-hour window, in most cases





Nationally Based Surveillance Operations

The UScellular disaster recovery team pools its expertise and resources to respond to events of any size via its network of experts and assets allocated to disaster recovery and network hardening. We employ a comprehensive national disaster recovery program that encompasses early storm warning/monitoring/communication plan, pre-staging network response resources prior to onset of threat, effective management of network restoral efforts, real-time network performance monitoring, and post-event recovery procedures.

Disaster events can be chaotic. UScellular has designed its Access Operations Disaster Response (AODR) Team structure in such a way that associates focus on very specific roles to ensure all bases are covered and bring order to an otherwise disorderly situation.

- **AODR Chair:** The AODR Chair is responsible for all aspects of emergency response, including development of incident objectives, managing all incident operations, and oversight and responsibility for all resources and personnel participating in the event
- **Incident Manager:** The Incident Manager coordinates restoration efforts with national resources as necessary for AODR events
- **Logistics Officer:** The Logistics Officer coordinates all transportation, lodging, resource tracking and equipment recovery
- **Staging Officer:** The Staging Officer coordinates overall organization and control of staging areas and all associated equipment before, during and after an event
- **Reporting Officer:** The Reporting Officer serves as the liaison between AODR responders and all areas of the business to track and accurately report the network status and recovery efforts
- **Refueling Officer:** The National Refueling Team audits, coordinates and tracks generator fueling prior to and during an AODR event

- **NRG Officer:** The goal of the NRG Manager is to provide remote site support to restore equipment and services
- **Design and Performance Officer:** The Design and Performance team ensures that all RAN equipment including radios, antennas and cabling are per design during and after an AODR event
- **Safety Officer:** The Safety Officer is responsible for working closely with the Incident Manager and First Responders to ensure they understand the hazards in play during each event and mitigate risk to all associates involved in recovery efforts

Preparation is Key to Success

The UScellular AODR Team has a well-defined organizational structure that ensures key responsibilities are understood when there is potential, or real, impact to network performance. This organizational structure guarantees that roles are thoroughly understood and can be reliably executed when called upon. UScellular guarantees readiness by:

- Maintaining a comprehensive database of deployable assets and disciplined maintenance plan to ensure they are ready when needed
- Executing mock disaster recovery drills to verify processes and playbooks are understood
- Regularly exercising backup power generators to ensure readiness
- Remotely monitoring fuel levels
- Testing network outage reporting capabilities prior to events to accurately represent network availability to sales, business, and public sector teams
- Vigilantly monitoring all risks to network integrity





Community Support During Disasters

When unforeseen disasters and other crises adversely affect community members in our footprint, it is our responsibility to demonstrate commitment to ensuring that the public is informed, connected and supported.

Providing resources is not only the responsible reaction, but it also creates goodwill that leaves customers proud to call UScellular their carrier—and their neighbor. When circumstances in our communities are at their worst, we strive to be at our best.

By constantly implementing best practices and utilizing a continuous improvement model, our disaster response efforts provide key resources and services to keep our communities informed, connected and supported before, during and after a disaster. UScellular:

- Delivers aid and solutions to impacted communities through our dedicated disaster response team
- Offers priority solutions for emergency communications
- Provides complimentary charging stations, Wi-Fi, chargers, battery packs and water at UScellular Support Stations
- Communicates preparedness tips, disaster updates and helpful information to customers and communities
- Supports local disaster efforts through financial contributions to local chapters of the American Red Cross



Critical Connectivity, UScellular First Responder Solutions

Your mission is to keep the community safe and ours is to put your connectivity needs first. That's why UScellular Critical Connectivity is your solution to always keep first responders connected.

Our dedicated network preempts all other voice, video and data during congestion so that communications with your teams is uninterrupted and crystal clear.

UScellular's strategically located cell towers in both urban and rural areas enable coverage where and when you need it. Combined with land mobile radio (LMR) interoperability, we connect teams or agencies out of radio range using our locally grown cellular network.

And our disaster response team has your back during emergencies, while our local, technical experts help you chart an emergency plan. We offer unparalleled support to your community because it's our community too.



UScellular Prioritizes Your Critical Connectivity to Help You Keep Your Community Safe

UScellular Critical Connectivity solutions give you priority services, push-to-talk and enhanced security. Bundle these with unlimited data plans, rugged devices and disaster response to keep your team connected in natural or manmade emergencies.



Priority Services

In critical situations, data and voice priority and preemption pushes your data to the front of the line. Keep connected even when networks are crowded with other traffic.



Push-To-Talk Interoperability

Quickly share data via cellular network with land mobile radios (LMR), connecting you with any agency through interoperability features accessible at the push of a button.



Enhanced Security

Protect your critical communications from external security threats on intelligent private networks that shield your sensitive data.



Network Backup

Redundant routing automatically detects and reroutes traffic during outages, so you and your network stay connected in an emergency.



Proactive Disaster Recovery

In an emergency, count on local UScellular teams to conduct 24/7 surveillance for weather emergencies and deploy recovery vehicles including portable cell towers plus humanitarian aid.

Why UScellular

For every emergency in front of you, UScellular is behind you. First responders can count on a locally grown wireless network, advanced solutions to ensure you're connected securely at all times, reliable communication and agency collaboration where and when you need it.

5G provides the right speeds and low latency that allows data to flow in real time and in higher quality than ever before. UScellular 5G breaks through barriers to help you maintain situational awareness both inside and outdoors, so you have the information you need to power your best response.

For more information about emergency response from UScellular, or to learn about solutions tailored for first responders, contact your local UScellular Government Account Manager or phone **866-616-5587**.

