Telecom Emergency Response/ Preparedness Guide

The information below provides ideas for dealing with telecom emergencies, most recently updated during Hurricane Helene 2024. Please contact us if you'd like to discuss anything in more detail—we're here to help.

Internet

Cell/LTE Internet Aggregators

- Business solutions that operate on multiple cell networks, offering speeds and reliability comparable to wireline connections. We often use these for mid-sized offices experiencing delays in wireline deployment.
- Providers can ship routers overnight. Professional installation is available if needed but may take longer.
- Relies on power and local cell towers, which may be down or overloaded in emergencies.

Provider examples:

- For2Fi (preferred based on experience). Has a device that will accept 2 backup batteries which will need to be charged every day at the end of the day (each battery has life of 8-12 hours). If ordered by 11AM, will be delivered next day. High usage plans 200-300Gb with managed router $360/month. Coverage is reliable, even in rural areas, with speeds around 25Mbps. Services are month-to-month. Sierra Wireless is another option

Cell/LTE Provider Hotspots

- Available at local mobile stores (e.g., Verizon, AT&T, T-Mobile).
- Can support a 2-person office with good power Internet users (video, audio, browsing), providing reliability similar to DSL or cable Internet.
- Pricing varies: T-Mobile ~$50/month, Verizon $35-$80/month, AT&T $55-$245/month.

Satellite Internet

- Speeds range from 25-200Mbps (download) and 5-20Mbps (upload).
- Least impacted by disasters since signals come from satellites.
- High latency (over 100ms in remote areas).

Provider Examples:

- Starlink can be purchased at Best Buy or ordered online ($120-$1,000/month).
- MetTel is a top Starlink reseller. They are our preferred choice because they are used in government deployments and usually have available inventory.

Voice

On-Prem Phone Systems

- Common systems include Avaya and Cisco.
- Both offer a Disaster Recovery (DR) box that replicates necessary functionality and can be shipped quickly.

VoIP Phone Systems

- *Most common applications*
  - Call forwarding to cell phones or DR sites, or voicemail recordings.
  - Softphones (VoIP apps for mobile/desktop use).
- Providers are usually open to temporary solutions or proof of concept (POC) setups for emergency DR plans.

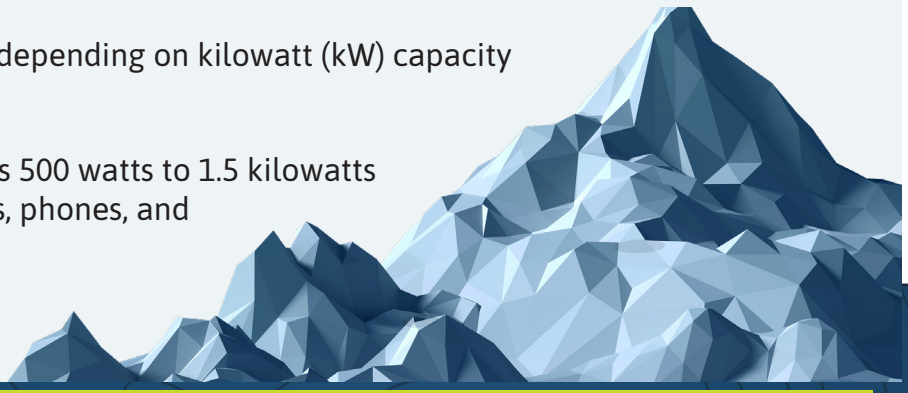
Cell Phones

- In areas with weak cell signals, a cellular booster may help. The best solutions use external antennas.
- Providers can install personal cell towers, though this may not be a quick solution.

Power

Generators

- Can be bought at stores like Bass Pro Shop or rented/purchased with overnight delivery.
- Available in propane, diesel, gas, battery, or solar-powered options.
- Costs range from $300 to $3K+, depending on kilowatt (kW) capacity (1kW to 5kW).
- A 5-person office typically needs 500 watts to 1.5 kilowatts (kW) to support lighting, laptops, phones, and printers.



Battery Backup

- Battery backups can be shipped fully charged and delivered overnight, but they provide limited charge time compared to generators and will need recharging from a power source.
- *Example:* Jackery offers a variety of battery backups, though not all come pre-charged.

Car Battery

- You can power personal devices or even a Starlink router from your car's battery. Some newer vehicles have a 110V outlet, or you can use a power inverter with a standard 12V plug. Inverters range from $20 to $200 and are available at Walmart, Home Depot and most truck stops.

Miscellaneous

- When ordering power or Internet equipment during an emergency, consider shipping it to a location outside the impacted area. Have an employee stage it there and drive it to the affected location. This reduces reliance on carriers and shipping delays.
- The Telecommunications Service Priority (TSP) program (FCC, managed by CISA) ensures prioritized provisioning and restoration of voice/data circuits for organizations with national security and emergency missions. Circuit IDs and phone numbers need to have a TSP designation set up prior to the disaster. Though the setup process is complex, it's worth it for qualifying organizations.
- During a disaster, generators, battery backups, and related equipment will be in short supply. Acquire and store this equipment in advance.
- Check local responders and government resources for emergency solutions. For example, during Helene, the fire department set up mini cellphone towers providing coverage within 2 miles and Wi-Fi within 500 feet. Counties also deployed Satellite Cells on Light Trucks (SatCOLTs).

About zLinq

We help mid-sized, multi-location enterprises select, buy, inventory, manage, and optimize telecommunications (WAN, voice services, phone systems, and contact centers). With specialized telecom software and over 400 years of combined client services experience, we help clients save time, reduce costs, and improve performance. Contact us for assistance any of the information in this guide, creating a plan for future emergency preparedness or anything else telecom related.