Leveraging ICTs for Disaster Response: What have we learned?

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Due to the global reach of our network, AT&T has significant experience in dealing with a number of different disaster types; **preparation is the key**.

1. Preparation & Planning: Micro and Macro View
2. Monitoring during Event: Damage Assessment and Restoration
3. Post Event: Learning

A major focus of our ongoing process is to identify key lessons learned after each event to continue strengthening our readiness and response.
Preparation & Planning: Micro and Macro View

Internal Capabilities

Industry Readiness

Regulatory Environment
Network Disaster Recovery Preparation: Practice, Practice, Practice – and then Practice Some More

- The NDR Team has performed over 76 field exercises
- Repetition provides for consistency and reliability
- Hone the skills needed to be sharp and safe
- Practice in the most difficult environments
- Execute in geographically diverse locations

- Full blown drills with full inventory of equipment & staff
- Time bound drills
- Recreate a central office (CO) on a piece of land that could be anywhere
- Set specific objectives around all key processes

- Sharpen Command & Control Procedures
- Align with external agencies
- Track everything
- Training as a central objective to raising skill levels
- Cross-train to create multi-skilled team

- Involve “all” the organization
- Allow external stakeholders to experience NDR field exercises
- Involve PR to ensure consistent messaging
- Listen to the team

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Readiness drills and simulations conducted throughout the year to ensure our network and personnel are prepared and ready to respond at a moment’s notice.

- AT&T Weather Operations Center (AWOC) - Monitor anticipated path, intensity, and potential impacts as storm is first identified
- Activation of planning and execution teams orchestrated at Global, Regional, and Local levels
- Conference calls to assess readiness of network team for landfall (monitor path of storm, prepare)
- Sandbagging of locations in path of storm (practice for flooding predictions)
- Stage and prepare regional generators in safe locations, with additional sets prepositioned for deployment from other locations
- Top-off fuel for all equipment and COs
- Test CO emergency generators
- Priority fuel supply procured/staged
- Prepare regional Cell On Wheels (COW), Satellite Cell on Light Truck (SatCOLT), Emergency Communications Vehicles (ECV), with additional equipment staged for deployment
- Pre-position personnel for rapid deployment
- Provide emergency credentialing as needed
- Network teams perform hurricane checklist procedures
- NDR Engineering Operations at Full Readiness
Monitor During an Event

AT&T Emergency Management Plan

– Includes Network & IT Operations across company (wireless, wireline and video)

– Incident command focused on integrated response, and seamless integration into agency Incident Command model

– Hierarchical approach matching resources to the challenge during an event

  • AT&T Global Technology Operations Center (GTOC)
  • Technical Reliability Centers (TRCs)
  • Emergency Operations Centers/Local Response Centers (EOCs/LRCs)
  • Field Response functions (FIAT, Strike Teams)
Post Event: Create a Culture of Continued Learning

- Lessons Learned in the field are the most important lessons – track and close them out after the event
- Verify systems are in place to keep good records – hold all issues, track and close
- Remain flexible but work within the Incident Command Structure
- Logistical Challenges – have a plan B (and C); think end-to-end and cover every element (e.g., import & export, tax and duty, air route capacity & personnel)
- Team should be self-sufficient – don’t become a burden on an already stressed environment
- Have a critical skill mix – First Aid, Fire Response, as well as technical
- Mix volunteers’ skills geographically
- Protect your line of communication and front line force during recovery activities
- Design your solutions to match as closely as possible the production environment
- Etc...
Superstorm Sandy (2012): Public need for charging capability for devices led to creation and deployment of self-contained charging stations.

Implement Lessons Learned

Charging Station Ready for Deployment

Accommodations for standard Plug or USB

Can Utilize Solar or Generator for Power
Conclusions

– Be prepared, complete a risk assessment and push innovative and creative solutions
– Share a common command structure with agency responders
– Establish strong lines of communication and maintain them during events
– Assess resource availability and do not rely on local resources
– Be self-sufficient – do not add to the stress of the impacted area
– Cross-sector cooperation and information sharing
– Skill-up and cross-train your resources
– Develop a culture of learning and continuous improvement – track and close lessons learned
– Practice, Practice, Practice