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ATIS Standard on -

**Network Reliability Steering Committee (NRSC)
Emergency Preparedness and Response Checklist**



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ATIS Standard on

Network Reliability Steering Committee (NRSC) Emergency Preparedness and Response Checklist

Alliance for Telecommunications Industry Solutions

Approved January 4, 2022

Abstract

This document was compiled from several years' experience by service providers responding to actual emergency situations and provides general guidance regarding preparedness for and response to a wide array of emergency situations.

Foreword

The Alliance for Telecommunications Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Network Reliability Steering Committee (NRSC) strives to improve network reliability by providing timely consensus-based technical and operational expert guidance to all segments of the public communications industry. As a trusted expert, the NRSC addresses network reliability improvement opportunities in an open, noncompetitive environment. The NRSC advises the communications industry through developing and issuing standards, technical requirements, technical reports, bulletins, Best Practices, and annual reports.

The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages. The word *may* denotes an optional capability that could augment the standard. The standard is fully functional without the incorporation of this optional capability.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, NRSC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, NRSC, which was responsible for its development, had the following leadership:

Carolyn Brown, Lumen, NRSC Co-Chair

Andis Kalnins, Verizon, NRSC Co-Chair

Robert Desiato, AT&T, NRSC BP Co-Chair

Thomas Smith, Comcast, NRSC BP Co-Chair

The NRSC Best Practices Subcommittee (NRSC BP) was responsible for the development of this document.

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1 Scope, Purpose, & Application

1.1 Scope

In the wake of Hurricane Katrina in 2005, the NRSC developed a list of proactive steps that could be taken by service providers to prepare for a hurricane. In October 2006, the *NRSC Hurricane Checklist* was published as a resource to the industry and also submitted as part of the FCC proceeding requesting comments on the Hurricane Katrina Panel.

Over the course of several years, service providers found information contained within the *NRSC Hurricane Checklist* useful while responding to other emergency situations. As a result, this document was revised and republished in 2019 as the *NRSC Emergency Preparedness and Response Checklist* to provide general guidance regarding preparedness for and response to a wide array of emergency situations. As a result of expanding the Checklist to emergency situations beyond a hurricane, NRSC identified the value of referencing industry Best Practices supporting preparedness and response activity.

This Checklist was again revised following lessons learned from a record-breaking 2020 Atlantic hurricane season, and the recognition of intense hurricanes, wildfires, and other disastrous events. Additionally, based on cross-sector discussion, an industry role for “Power” was added to the checklist, acknowledging the importance of coordination outside the ICT industry during restoration efforts.

1.2 Purpose

This document provides general guidance regarding preparedness for and response to a wide array of emergency situations.

1.3 Application

ICT Industry should use this information in preparation for and response to emergency situations.

2 Informative References

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ATIS-0100018(2021-02), *NRSC Pandemic Checklist*

3 Definitions, Acronyms, & Abbreviations

For a list of common communications terms and definitions, please visit the *ATIS Telecom Glossary*, which is located at < <http://www.atis.org/glossary> >.

4 Category Types

The Emergency Preparedness and Response Checklist is broken down into category types, which are based on three different sets of activities: Preparation, Response, and Recovery.

Each of these categories is contained on a different sheet on the spreadsheet (EPRC.xls) associated with this document.

4.1 Preparation Best Practices

These are the activities that should be completed throughout the year in order to be prepared to deal with emergency events, as well as material and personnel considerations completed immediately prior to an impending event. These activities are list on the Preparation Sheet, on the spreadsheet associated with this document.

4.2 Response Activities

These are the activities that should be completed immediately following the event and/or disaster, prior to networks being restored to pre-event conditions. These activities are listed on the Response Sheet, on the spreadsheet associated with this document.

4.3 Recovery Activities

These are the activities that should be completed following a disaster event. These activities are list on the Recovery Sheet, on the spreadsheet associated with this document.

5 Industry Best Practices (BPs)

The spreadsheet associated with this document (EPRC.xls) contains industry Best Practices. The primary objective of Best Practices is to provide guidance from assembled industry expertise and experience. They are vital to the reliability of the nation's public communications networks and services.

The majority of these Best Practices were created and modified by a series of FCC chartered Network Reliability and Interoperability Councils (NRIC), federal advisory committees that preceded the Communications, Security, Reliability, and Interoperability Council (CSRIC). The former NRICs were comprised of representatives from communications companies, communications industry associations, and government entities. The NRICs operated for 14 years (January 1992 through December 2005) and developed over 800 Best Practices. Since the charter of the CSRIC in 2007, over 200 additional new Best Practices have been established.

As a result of expanding the Checklist to emergency situations beyond a hurricane, NRSC identified new Best Practices (identified as "NEW" on the associated spreadsheet). Protocol requires that the FCC CSRIC review and confirm these Best Practices prior to their inclusion in the Best Practices database.

In general, mandated implementation of industry Best Practices is not consistent with their intent. Attempting to identify which Best Practices might be required of every participant in the communications industry would be very impractical, if not impossible. Mandating compliance with Best Practices would impact the ability of organizations, their customers, and other constituents to manage the value proposition, the pricing that defines their business models, and participation in the industry. Compliance with Best Practices should be voluntary in order to allow for co-existence of new and old technologies.

5.1 Best Practice Numbering Methodology

Best Practices have a unique numbering methodology. The spreadsheet associated with this document references **only** the last four digits of a Best Practice, because they are the only static digits of the Best Practice number.

The Best Practice numbering methodology follows:

Number: Format is XX-YY-ZXXX

X *Current, or most recent, NRIC/CSRIC Council (e.g., 7 in 2004-2005)*

NRIC III	01
NRIC IV	02
NRIC V	03
NRIC VI	04
NRIC VII	05
NRIC VIII	06
CSRIC I	07
CSRIC II	08
CSRIC III	09
CSRIC IV	10
CSRIC V	11
CSRIC VI	12
CSRIC VII	13
CSRIC VIII	etc.

Y *CSRIC in which the BP was last edited*

NRIC III	01
NRIC IV	02
NRIC V	03
NRIC VI	04
NRIC VII	05
NRIC VIII	06
CSRIC I	07
CSRIC II	08
CSRIC III	09
CSRIC IV	10
CSRIC V	11
CSRIC VI	12
CSRIC VII	13
CSRIC VIII	etc.

Z *Number indicating category of Best Practice*

0 and 4 for Network Reliability and Interoperability

1 for Disaster Recovery and Mutual Aid

3 for Public Safety

5 for Physical Security

8 and 9 for Cyber Security

XXX *Any digits, where every BP has a unique ZXXX*

A complete listing of Best Practices can be found on the following website: <https://bp.atis.org/>.

Phase	BP #	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Network Operators</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Service Providers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Power</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Equipment Suppliers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Public Safety</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Property Managers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Government</div> </div>							Task	Completed
									General:	
Preparation	NEW	X	X	X		X		X	Risk assessment should be performed on critical facilities, network equipment, and power connections so that they are not located in areas that are likely to flood (e.g. Army Corp of Engineers Flood Mapping Projections, Geographic Information System (GIS)). Ensure that mitigation plans are implemented in sites located in flood prone areas (e.g. elevation of platforms).	
Preparation	NEW				X			X	Seek agreements with vendors with a willingness to exercise risk management and increase inventory prior to a disaster event.	
Preparation	NEW		X		X				Pursue development of a higher tensile strength aerial service wire.	
Preparation	NEW	X	X		X	X	X	X	Negotiate a wider right-of-way to prevent trees from being the issue that it has been when aerial cable is the only choice.	
Preparation	NEW	X	X					X	Trim trees within right-of-ways yearly, in partnership with local power company.	
Preparation	NEW	X	X		X				Establish/maintain/have redundancy of necessary databases and files:	
Preparation	NEW	X	X		X				Master file for all system access/software issues for each center work group (or work function).	
Preparation	NEW	X	X		X	X	X	X	Database for external and internal resource sharing.	
Preparation	1061; 0456			X	X			X	Verify designations for high priority circuits are maintained in a database for speed of restoration (i.e. internal circuits, Telecommunication Service Priority (TSP), state and local Emergency Operation Centers (EOCs), fire and police departments, hospitals, airports, military bases, utility plants (power, water, sewage), levee districts, Corp of Engineers, and port authorities, utility plants (power, water, sewage), life safety equipment, and other connected communications companies.	
Preparation	NEW	X	X		X	X			Ensure that all multiplexers, rings, and protect facilities are fully operational (test as necessary).	
Preparation	0662	X	X			X			Ensure the generator start & transfer procedures remain up-to-date (step-by-step).	
Preparation	0662		X						Test run engines/generators on a routine basis.	
Preparation	5232	X	X		X	X			Test fuel reserves for contamination at least once a year or after any event that could compromise the tank housing or pipes.	
									Safety and Necessities:	
Preparation	5285	X	X		X	X	X		Flashlights and spare batteries	
Preparation	5285	X	X						Personal Protection Equipment (PPE), reflective gear	
Preparation	5285	X	X			X	X		Potable drinking water and Meals Ready to Eat (MRE) (staged in critical locations to hold personnel over until food arrives)	
Preparation	5285	X							Cots, blankets, etc.	
Preparation	5285	X	X		X	X	X		First aid supplies, neutralizing agents, eye wash kits, spill kits, etc.	
Preparation	NEW	X	X						If available, set up a base camp for lodging, food, showers, and laundry.	
Preparation	NEW	X	X					X	Contact pre-identified food providers to verify services that can be provided if necessary.	
Preparation	NEW							X	Take inventory of emergency supplies, water, Gatorade, sodas, non-perishable food, etc. to ensure levels at all locations are appropriate for the anticipated severity of the event.	
									Batteries:	
Preparation	1028	X	X						Check condition, electrolyte level, age, and charge (NOTE: lack of start battery maintenance causes most engine failures).	
Preparation	NEW	X	X			X	X		Maintain an appropriate stock of batteries for flashlights, weather radios and other equipment.	
Preparation	NEW	X	X			X	X		Review inventory of all battery stock available for distribution to a critical facility.	
									Communication and Coordination with Power Companies:	
Preparation	NEW	X	X	X	X	X	X	X	Ensure there is contact list for the power companies to ensure collaboration during assessment and restoration.	
Preparation	NEW	X	X	X				X	Establish a utilities coordinator to interface with the power company per agreement.	
Preparation	NEW	X	X	X	X	X	X	X	Identify contacts for DOT waivers on both state and federal level.	
Preparation	NEW	X	X	X	X	X	X	X	Identify contacts for DOT road closures and debris removal.	
Preparation	NEW	X	X	X				X	Identify your critical facilities for the power company to place on their priority list.	

Preparation	0590,0405	X	X	X			X		Gather intelligence on how the power company feeds your Critical Facilities (substation, primary and alternate feeders, etc.).
Preparation	NEW	X	X	X		X			Identify Power Company's staging area for techs and equipment.
Preparation	0495	X	X		X				Maintain contacts and communications with the local power company, including escalation procedures.
									Communication with Local Fuel Vendors:
Preparation	NEW	X	X			X	X		Top off all generators and vehicles.
Preparation	5207	X	X						Establish a emergency fuel program for acquiring fuel and list of vendors.
Preparation	NEW	X	X			X	X		Contract with a fuel provider with established delivery expectations during an incident, being cognizant of any fuel treatments required for weather conditions.
Preparation	NEW	X	X			X	X		Contact the state if it has an emergency fueling program to check availability of fuel.
Preparation	NEW	X	X			X	X		Ensure the fuel provider has necessary spill prevention kits and permits.
Preparation	NEW	X	X			X	X		Establish pre-designated refueling locations.
Preparation	NEW	X	X			X	X		Determine the type of fuel required (diesel, unleaded, propane, etc.).
Preparation	NEW	X	X				X		Determine the run rates for your generators based on a full tank.
Preparation	NEW	X	X				X		Pre-determine corrective actions if fuel is exhausted.
Preparation	NEW	X	X				X		Review and inventory the master list of all facilities and type of generators, size, type of fuel and capacities.
									Communications Methods:
Preparation	8068	X	X		X	X		X	Prepare for total loss of cell phones and landline network.
Preparation	8068	X	X		X	X			Evaluate the use of radios, next generation satellite phones, text pagers, long distance Foreign Exchange (FX) lines, etc.
Preparation	8068	X	X		X	X			Equip more employees with cell phones, "iPhones", or other similar device if necessary.
Preparation	8068	X	X		X	X			Evaluate the use of IP-based communications.
Preparation	8068	X	X		X	X			Inventory satellite phones, hand and 2-Way Radios (UHF & VHF), cell phones, and pagers by type and location.
Preparation	8068	X	X		X	X			Have spare batteries and chargers (AC and 12-volt) on hand for alternative communication devices.
Preparation	8068	X	X		X	X			Make sure cell phones are available from an alternate service provider for network managers trying to restore service.
Preparation	8068	X	X		X	X			Have an emergency liaison with the wireless providers advise which cell sites are accessible and work if provided a radio link.
Preparation	8068	X	X		X	X			Ensure the emergency communication tools are tested and ready.
Preparation	8068	X	X		X	X			Ensure all alternate communication devices are shipped out (as required/requested) before shipping delays may occur.
Preparation	8068	X	X		X	X			Test Government Emergency Telecommunications Service (GETS) and Wireless Priority Service (WPS).
Preparation	8068	X	X		X	X			Test Shared Resources (SHARES) High Frequency Radio Program and emergency voice communications network.
Preparation	8068	X	X		X	X			Charge all cell phones and similar devices.
Preparation	NEW	X	X			X			Ensure that Interactive Voice Response (IVR) announcements are specific.
									Communications with Employees:
Preparation	NEW	X	X				X		In coordination with HR, develop policies, procedures, and tools to utilize to communicate with employees during a disaster or emergency situation.
Preparation	NEW	X	X				X		Coordinate with HR, internal Coms and local POCs to develop and distribute an employee guide.
Preparation	NEW	X	X				X		Routinely request that employees update their contact information (personal and emergency contacts) on a quarterly basis.
Preparation	NEW	X	X				X		Ensure that employees are aware of any registration or opt-in that they may need to do for emergency notification systems or phone applications.
Preparation	NEW	X	X				X		Develop and distribute tips/newsletters with guidance on preparing for various disasters.
Preparation	NEW	X	X				X		Establish contacts with HR representatives to learn about policies and programs that can be activated during an incident to assist employees.
Preparation	NEW	X	X				X		Develop a standard operating procedure for activating the Employee Assistance Program.
Preparation	NEW	X	X				X		Develop policies and procedures for remote work during an emergency situation.
Preparation	NEW	X	X				X		In coordination with IT, develop policies and procedures for work from home technology able to be used during an incident (loaner laptops provisioned with correct tools, loaner phones, etc.).
Preparation	NEW	X	X				X		Develop and/or update system or regional guidelines that will be followed in the event of an emergency (office closure policies, pay policies, attendance policies, etc.).

Preparation	NEW	X	X				X		Review the disaster/storm pay guidelines, customize to the scenario as necessary in coordination with the leadership team, and distribute to all supervisors and employees.
Preparation	NEW	X	X				X		Customize and distribute disaster prep checklists (ex. Tips for Hurricane Prep).
Preparation	NEW	X	X				X		Encourage employees to notify their managers of any potential life circumstances that may require them to have additional flexibility during preparation, response and recovery (small children with closed schools, elderly family members that need assistance in preparation, etc.).
Preparation	NEW	X	X				X		If unable to make contact with employee, send out teams to visit employee homes when safe to do so. Utilize the employee list sorted by zip code for this effort.
Preparation	NEW	X	X				X		Identify any employees in shelters or other temporary housing situations.
Preparation	NEW	X	X				X		Consider coordinating mass transportation for employee pick up and drop off from home to work.
Preparation	8068	X	X		X	X			Practice effective communications.
Preparation	8068	X	X		X	X			What is the problem we are trying to solve?
Preparation	8068	X	X		X	X			Why is this important (priority)?
Preparation	8068	X	X		X	X			What is the time frame we need for resolution?
Preparation	8068	X	X		X	X			Set expectations and provide specific guidance.
Preparation	8068	X	X		X	X			Send storm watch/warning alert to first responders and communication to all other employees.
Preparation	8068	X	X		X	X			Contact impacted field managers.
Preparation	8068	X	X		X	X			Advise to monitor weather conditions.
Preparation	8068	X	X		X	X			Advise employees to prepare family and home prior to emergency.
Preparation	8068	X	X		X	X			Coordinate the release of employees to handle their personal affairs.
Preparation	8068	X	X		X	X			Give critical employees instructions on the return to the job.
Preparation	8068	X	X		X	X			Cover employees on place of reporting procedures.
Preparation	8068	X	X		X	X			Designate "after storm" assignments for employees and managers to include primary and alternate reporting locations.
Preparation	8068	X	X		X	X			Establish communication channels and communicate to all personnel.
Preparation	8068	X	X		X	X			Check the phone number for employees to call and say they're okay.
Preparation	8068	X	X		X	X			Establish and publish conference bridge numbers.
Preparation	8068	X	X		X	X			Determine when to call network monitoring centers.
Preparation	8068	X	X		X	X			Set up a local number for employees to call for local information.
Preparation	8068	X	X		X	X			Expand the utilization of liaisons from other internal organizations by temporarily placing them in the EOC.
Preparation	5055	X	X		X	X	X	X	Establish/maintain a method of communication for employees to provide personal status during and after emergencies, which may include social media.
									Conference Bridges:
Preparation	8068	X	X		X	X			Establish, post and update all conference bridge numbers used for hurricane activity.
Preparation	8068	X	X		X	X			Communicate critical items via daily conference bridge calls backed up by email.
Preparation	8068	X	X		X	X			Assign representatives from all disciplines to monitor and support the various conference bridges.
Preparation	8068	X	X		X	X			Communicate status call timelines and participants to field managers and reinforce standard agenda.
Preparation	8068	X	X		X	X			Conduct conference calls with key management to discuss potential impact sites.
Preparation	8068	X	X		X	X			EOC establishes an open bridge for internal status (24x7).
									Coordination:
Preparation	0491	X	X		X	X			Partner with security, federal marshals, National Guard, and law enforcement for ingress/egress and access requirements.
Preparation	0491	X	X		X	X			Obtain and review Department of Transportation (DOT) rules and waivers, and a copy of the state declaration.
Preparation	NEW	X	X				X		Review all the state traffic and evacuation details.
Preparation	1052	X	X				X		Establish a clearing house for decisions impacting multiple groups as defined by the business continuity plan.
Preparation	1006	X	X				X		Review abnormal event procedures with all management.
Preparation	1006	X	X				X		Provide field managers with the strategic list of locations in the potentially affected area (switch, POP, regenerator, MSC, MSO).
Preparation	1006	X	X				X		Provide field managers with the list of potentially impacted network platforms.
Preparation	1006	X	X				X		Ensure technical support preparations, checklists, and pre-planning are on schedule.

Preparation	1006	X	X				X		Remind field managers that requests for higher-level technical support must go through the on-call liaison officer.
Preparation	NEW	X	X				X		Develop a re-entry strategy for the area.
Preparation	1006	X	X				X		Review staffing plans to ensure appropriate staffing levels – shifts covered, alternate reporting locations, etc.
Preparation	1006	X	X				X		Determine the teams to staff the situation room 24x7 for the duration of the event.
Preparation	1006	X	X				X		Coordinate with your EOC to work with your ECC for emergency strike teams deployment.
Preparation	0779	X	X				X		Local EOC Team members notified and ready.
Preparation	1006	X	X				X		Develop checklists for positions of Coordinator, Manpower, General Administration, HR, Fleet, and Lodging.
Preparation	1006	X	X				X		Engage representative to the ECC to synchronize response activities with Governmental EOC contacts.
Preparation	NEW	X	X				X		Gather information on evacuation routes, road closures and potential office closures.
Preparation	1017	X	X				X		Establish damage survey preparedness teams and assign areas.
Preparation	0799	X	X				X		Verify readiness to execute power down procedures.
Preparation	1045	X	X				X		Stage additional resources to meet the capacity or service estimates as appropriate.
Preparation	5055	X	X				X		Notify network control centers to be on alert.
Preparation	1038	X	X				X		Establish priority activities for the event.
Preparation	NEW	X	X				X		Establish a mandatory evacuation time.
Preparation	1006	X	X				X		Activate emergency core teams (Procurement, Real Estate, Safety and Environmental Management).
									Finance:
Preparation	5287	X	X				X		Temporarily increase limits on company purchase cards (upgrades/cash advances) if needed.
Preparation	5287	X	X				X		Obtain storm expense accounting codes.
Preparation	NEW	X	X				X		Alert Corporate of potential challenges with the processing of payroll. Establish alternate plans depending upon the timing in the payroll cycle. Pre-arrange backup with a payroll coordinator in another system. Plan for a loss of access to the network after the storm.
Preparation	NEW	X	X				X		Start enacting any storm protocol to bring in or fill large capital resources such as facility gas tankers, fill facility back up generators if present, get external storage container ships and process to delivery same day, etc.
Preparation	NEW	X	X				X		In coordination with warehouse staff, set up a meeting to discuss current levels of materials and tools to determine if additional resources need to be ordered.
Preparation	NEW	X	X				X		Set up a storm project number to code all material related to the storm issued out of the warehouse.
Preparation	NEW	X	X				X		Negotiate prices/direct billing for accommodations contracts – first right of refusal at designated hotels.
Preparation	NEW	X	X				X		Validate big ticket items and requests that require capital funding or large facility purchases (fuel tanks for vehicle re-fueling, temporary building in flood zone, sand bags, Home Depot Spending Cards to purchase items at the region level, etc.).
Preparation	NEW	X	X				X		Increase the gas card limit.
Preparation	NEW	X	X				X		Assure there is adequate cash on hand for purchases before and after the storm – this includes supplies, gas, food, etc.
Preparation	NEW	X	X				X		Cash may need to be provided to employees who have no access to banks or ATM's and are in a "catastrophic" or special situation. Prepare a promissory note for employees to sign if a cash advance is provided. Need may be greater if event hits just prior to a payroll week.
Preparation	NEW	X	X				X		Determine gift card policy and appropriateness given the situation.
Preparation	NEW	X	X				X		Notify centers when to hold cash.
Preparation	NEW	X	X				X		All incident related costs must be tracked and provided. A simple spreadsheet will work. Ensure that techs coming in from other regions or Divisions are included in this tracking.
Preparation	NEW	X	X				X		Invoiced Expenses/P-Card: track on a spreadsheet what is spent (vendor, amount, date, reason, etc.).
Preparation	NEW	X	X				X		Customer bills: have a prep discussion on when to start holding bills in coordination with CX and CARE.
Preparation	NEW	X	X				X		In coordination with collections/billing, determine whether to suspend collection efforts.
Preparation	NEW	X	X				X		In coordination with billing, determine whether to suspend convenience fees.
Preparation	NEW	X	X				X		Execute the plan for issuing credits to commercial & bulk customers.
Preparation	NEW	X	X				X		In coordination with project manager/incident commander, coordinate payment for block of rooms from the hotel list and purchase food (e.g. delivery of food and cold drinks to worksites).
Preparation	NEW	X	X				X		Track all hours worked by department (regular v. overtime) by employee, by day, starting when the offices officially closed. Keep detailed info on the maintenance technicians - if they are replacing cable, indicate how many hours are spent doing so. Continue to track hours through the incident.

Preparation	NEW	X	X				X		In coordination with the leadership, assess needs to rent vehicles in the unaffected areas to provide transportation to key employees and provide plan for approving expenses.
Preparation	NEW	X	X				X		Ensure that incident/disaster pricing has gone into effect (Line Item, hourly, each transaction needs to have a work order).
Preparation	NEW	X	X				X		Weekly vendor statements with a not billed estimate included, Standard cost estimate form, Standard v. capital tracking sheet, Headcount (include names, where they worked, what contractor they are from, number of hours worked).
Preparation	NEW	X	X				X		Provide update on whether incident/disaster policy will be put into effect, how we will be issuing credits, distribute message, and implement.
Preparation	NEW	X	X				X		Distribute pre-draft bill messages regarding credit policy.
Preparation	NEW	X	X				X		Consider differences in bulk customer credit policy, Needs to be decided on promptly after storm passing – ensure a different/unique message is relayed to these customers, Bulk Master Accounts are to be credited for outages based on node web tool, Post flyers in these buildings with information post storm.
Preparation	NEW	X	X				X		Invoicing (use a consistent invoice form throughout the company), Across Region: invoice by node per week - One node per invoice, Pricing structure. Communicate with contractors invoice timelines, Construction managers to sign off on all hourly work.
Preparation	NEW	X	X				X		Evaluate Capital expenditures and authorization levels.
Preparation	NEW	X	X				X		Summarize and finalize costs of the incident and distribute to senior leadership as needed.
									Emergency Control Sites:
Preparation	5275	X	X				X		Reserve and activate the primary or back-up EOC outside of the storm's path for tactical operations.
Preparation	1041	X	X				X		Determine if alternate logistics delivery sites are needed.
Preparation	1006	X	X				X		Logistics planning for EOC building occupants during storm duty.
Preparation	1006	X	X				X		Place request for food, beverages, office supplies, etc. for the EOC.
									Engine/Genset (portable and permanent):
Preparation	0662	X	X				X		Test to ensure generators (portable and permanent) and transfer switches are functioning properly.
Preparation	0662	X	X				X		Check chargers, fuel, oil/air filters, oil, antifreeze, belt, fuel pump, water pump, etc.
Preparation	5206	X	X				X		Establish a generator refueling schedule for each location.
Preparation	5080, 5237	X	X				X		Inventory spare parts (fuel filters, belts, oil & filters, antifreeze, hose clamps, jumper cables, gas cans, etc.).
Preparation	0669	X	X				X		Review the start & transfer procedures (step-by-step).
Preparation	NEW	X	X				X		Start engine & transfer load to reduce power hits.
									Equipment:
Preparation	NEW	X	X				X		Verify all power connections and equipment are out of basements and low-lying first floor areas subject to potential flooding.
Preparation	NEW	X	X				X		Update the list and location of deployable equipment and verify status/operability.
Preparation	1033	X	X				X		Cells on Wheels (COWs), Switch on Wheels (SOWs), etc.
Preparation	0450	X	X				X		Towers (microwave, earth stations, etc.)
Preparation	NEW	X	X				X		Land Mobile Radio (LMR) base stations
Preparation	NEW	X	X				X		Power equipment
Preparation	NEW	X	X				X		SLC trailers
Preparation	8704, 5165	X	X				X		Secure and protect computer equipment, documents, electronics, capital tools and test equipment.
Preparation	NEW	X	X				X		Equipment needed for restoration
Preparation	NEW	X	X				X		Protect or move PIC's.
Preparation	NEW	X	X				X		Ensure all test sets function properly and provide backup batteries.
Preparation	NEW	X	X		X	X	X	X	If possible, consider providing natural gas connections near Digital Loop Carriers (DLC) sites and convert small generators so that they can run from it.
Preparation	NEW	X	X		X	X	X	X	List and location of deployable equipment and status/operability (Subscriber Loop Carriers (SLC) trailers, Cell on Wheels (COWs), Switch on Wheels (SOWs), etc.).
Preparation	NEW	X	X		X				Have tools and equipment ready for loaned personnel during disaster events.
Preparation	NEW	X	X		X	X			On a periodic basis ensure all critical equipment is photographed and serial numbers are documented (can be used for insurance purposes).

Preparation	NEW	X	X				X		Review or update master list of all facilities.
Preparation	NEW	X	X				X		Check on status of generators at facilities in the Region.
Preparation	NEW	X	X				X		Ensure there are contacts for structural engineers in various parts of the Region in case we need to have assessments of buildings that have been damaged.
Preparation	NEW	X	X				X		Validate type of fuel needed, capacity of tank, and run time for each generator.
Preparation	NEW	X	X				X		Prepare facilities for the anticipated type of incident (e.g. sandbagging and waterproofing for flooding).
Preparation	NEW	X	X				X		Service/check all portable generators during first month of hurricane season – secure generators with locks and chains to reduce the chance of theft.
Preparation	NEW	X	X				X		Take pictures of interior and exterior facilities prior to the incident to document status quo in case they are needed for future insurance claims.
Preparation	NEW	X	X				X		Storage Container for Essential Recovery Material and Facility Supplies.
Preparation	NEW	X	X				X		As needed, reach out to master electrician for advanced troubleshooting and repair.
Preparation	NEW	X	X				X		Verify propane & fuel contractors to make post storm deliveries.
Preparation	NEW	X	X				X		Arrange for food trucks, shower trucks, and possibly RVs for restoration in the area's hardest hit by the storm.
Preparation	NEW	X	X				X		Store 5 gallon gas cans – to ensure sufficient supply.
Preparation	NEW	X	X				X		Prepare all critical facilities that may be impacted by the incident.
Preparation	NEW	X	X				X		In collaboration with local management and HR, develop list of possible office closures for review by SLT.
Preparation	NEW	X	X				X		Ensure that plans for generator maintenance are in place after a specified duration of usage (or post event).
Preparation	NEW	X	X				X		Secure all parking lot and facilities of loose equipment and debris.
Preparation	NEW	X	X				X		Provide a list of facilities that have showers.
Preparation	NEW	X	X				X		Procure, store, secure and distribute fuel (personal vehicles) - 5 Gallons per car daily.
Preparation	NEW	X	X				X		If possible, test that card access entry is properly connected to generator prior to event impact.
Preparation	NEW	X	X				X		Assess all facilities for impact, including property damage (assessment and pictures). Whenever possible, take pictures of interior and exterior facilities to demonstrate delta from pictures taken prior to the event.
Preparation	NEW	X	X				X		If needed, consider purchasing/allowing usage of existing washer and dryer in system locations to provide method for employees who are without power to do laundry.
Preparation	NEW	X	X				X		Add to incident specific checklists: Ensure that shutters are installed at office facilities within a hurricane watch or warning when the hurricane category warrants shutter security. Sandbag all hubs and head ends.
Preparation	NEW	X	X				X		Verify who is doing this and who is authorized to make these purchases and distribute
Preparation	NEW	X	X		X	X	X	X	Design the outside network to better withstand flooding and severe weather, and make restoration easier.
Preparation	5229; 5231	X	X		X	X	X	X	Document how your CO/building gets power (substation, primary and alternate feeders, etc.) and document terminology utilized by power companies.
									Monitoring Event:
Preparation	3210	X	X				X		Monitor different sources of information (NOAA website (http://www.nhc.noaa.gov/), major news, social media, government and local contacts, etc.).
									Organization:
Preparation	NEW	X	X				X		Identify emergency response manager with the lead role in gathering, consolidating and disseminating event information.
Preparation	NEW	X	X				X		Create a specific event folder and log.
Preparation	NEW	X	X				X		Post (and update) GIS maps, real estate spreadsheets, and HR report on an intranet website/bulletin board.
Preparation	NEW	X	X				X		Determine if the impact area is likely to change over the course of the event.
Preparation	NEW	X	X				X		If the hurricane is downgraded to a tropical storm or the path changes, continue to monitor until the threat is gone.
									Planning:
Preparation	NEW	X	X				X		Designate a coordinator to handle ordering all supplies and to expedite material shipments.
Preparation	Modified : 5207	X	X				X		Request and stage additional supplies prior to landfall if possible. The use of pods at remote locations can save time.
Preparation		X	X				X		Secure agreement from vendors that they will agree to ship products immediately upon request after the storm.

Preparation	5195, 1022	X	X				X		Maintain records of materials ordered, received, and transferred.
									Potential Impacts:
Preparation	5207	X	X				X		Gain an understanding of the anticipated event and its likely impacts to the network and resources.
Preparation	1067	X	X				X		Consider impacts from flooding, power outages, limited access, employee evacuations, etc.
Preparation	1067	X	X				X		Identify facilities, personnel, and other resources within the hurricane's potential impact areas.
Preparation	NEW	X	X				X		Create Geographical Information System (GIS) maps overlaying hurricane's projected path over company territory.
Preparation	5027	X	X				X		Develop a report of personnel in potentially impacted areas (e.g. employees, contractors, etc.).
									Power Failures:
Preparation	5204	X	X				X		Ensure DC lights, flashlights, and batteries are available and functioning properly.
Preparation	NEW	X	X				X		Review power-up and power-down procedures of CO equipment to better sustain battery life by operating in simplex mode and in case a complete shutdown is needed.
Preparation	NEW	X	X				X		Begin using available remote access tools to monitor the status of the CO power and standby power plants.
Preparation	NEW	X	X				X		Place power technicians in strategic locations.
									Preventive Measures:
Preparation	0599	X	X				X		Verify that all multiplexers, rings, and protect facilities are fully operational.
Preparation	0459	X	X				X		Weatherize or weatherproof Crossboxes and Remotes/Cells as needed.
Preparation		X	X				X		Secure assets in low lying areas and make sure all equipment covers are secure. If possible, relocate equipment outside of area of impact prior to the event.
Preparation	0776	X	X				X		Review/update vulnerability assessments of critical facilities or networks.
Preparation	0716	X	X				X		Begin proactive patrolling of interoffice facility fibers and other critical fiber/cable routes (i.e. aerial/buried) to include grid sweeps by engineers.
Preparation	NEW	X	X				X		Test traffic redirection for lines/services in the affected areas.
Preparation	NEW	X	X				X		Place network monitoring centers on heightened alert for affected areas.
Preparation	1004	X	X				X		Review back-up plans for loss of key facilities (network re-routes, etc.).
Preparation	NEW	X	X				X		Prepare roaming wireless restoration teams to help in reducing wireless troubles.
Preparation	0599	X	X				X		Prepare for possible obstacles (inaccessible locations, road closures, evacuations, decontamination requirements, etc.).
Preparation	NEW	X	X				X		Ensure any storage tanks for hazardous substances remain secured and water tight to avoid leakage.
									Priority Areas:
Preparation	0456	X	X				X		Prioritize recovery areas (critical outages, largest or highest populated areas, etc.).
Preparation	0454	X	X				X		Establish "Expedite and Escalation Center" to prioritize installation and restoration of critical services and to ensure parity.
Preparation	0454	X	X				X		Prioritize Remote/Cell sites (for hospitals, fire, police, etc.) ensuring routines completed and sand-bag as required.
									Public Coordination (Sales / Marketing):
Preparation	5284	X	X				X		Prepare for an emergency supply of customer equipment (phones, handsets, data devices, etc.).
Preparation	5284	X	X				X		Plan post storm activities with customers and establish voice mail services.
Preparation	5284	X	X				X		Consider a media campaign, goodwill campaign, etc.
Preparation	5284	X	X				X		Consider best method to keep our customers informed on safety, restoration, etc. via radio, television, internet, etc.
Preparation	5284	X	X				X		Ensure sales organizations notify key customers in the potentially impacted areas concerning our preparations.
									Rectifiers:
Preparation	1028	X	X				X		Check to make sure rectifiers are working properly.
Preparation	NEW	X	X				X		Inventory spare parts (circuit boards, fuses, etc.).
									Reporting and Notification:

Preparation	NEW	X	X				X		Prepare required preparation reports (for Region/National).
Preparation	NEW	X	X				X		Review and update the field reporting requirements and procedures for information to and from the EOC.
Preparation	NEW	X	X				X		Create a folder on a shared drive to track status reports.
									Safety:
Preparation	5286	X	X				X		Verify safety coordinator list is current prior to the storm.
Preparation	5286	X	X				X		Plan for employee and family evacuation.
Preparation	5286	X	X				X		For employees who do not evacuate, develop a list of names and planned locations.
Preparation	NEW	X	X				X		Avoid dispatches/call-outs during hazardous storm conditions.
Preparation	5286	X	X				X		Advise employees to consider predicted flood areas when choosing a location to ride out the storm.
Preparation	0790; 0791	X				X			Maintain supply of Personal Protective Equipment (PPE) and maintain training regarding the use of PPE.
Preparation	5055	X	X			X			Name multiple safety coordinators prior to the storm. You can adjust later, but have these people trained and ready to go.
Preparation	NEW	X	X		X	X	X	X	Have a plan for tetanus shots (or other immunizations) for employees, when required.
Preparation	NEW	X	X			X		X	Keep vehicles serviced and maintained. Stage vehicles and portable equipment away from flooding or impacted areas.
									Security:
Preparation	5097	X	X				X		Coordinate with corporate security for the protection of assets and employees.
Preparation	5097	X	X				X		Work with corporate security to determine if additional security measures are warranted for key facilities and assets.
Preparation	NEW	X	X				X		Staff security officers at impacted facilities that may be compromised.
Preparation	NEW	X	X				X		In coordination with management and HR, ensure that the list of alternate facilities is up-to-date.
Preparation	NEW	X	X				X		Ensure that the appropriate employees have credentials and access to alternative facility if needed.
Preparation	NEW	X	X				X		Review Security services contracts and timelines for support.
Preparation	NEW	X	X				X		Develop plans for basic security procedures if National Fuel Plan is activated. Consider coordinating with State/local police.
Preparation	NEW	X	X				X		Obtain proper credentials from State DOT for access to recovery areas as well as identification for the exterior of vehicles to be used in recovery areas.
Preparation	NEW	X	X				X		Identify any possible security risks or locations in event footprint.
Preparation	NEW	X	X				X		Maintain situational awareness and ensure proper alerts are sent to employees/teams.
Preparation	NEW	X	X				X		Ensure that an organized effective process is in place for issuing, managing and collecting ID badges. Only approved contractors may be issued a Company contractor ID badge.
Preparation	NEW	X	X				X		If needed, provide security support to the front counter/payment center offices as they begin opening. If required, secure contract for these security services.
Preparation	NEW	X	X				X		Distribute, track, and manage the ID badges to Company techs coming in from other Regions/Divisions. Ensure all accesses are appropriate for the facilities that they will need to visit.
Preparation	NEW	X	X				X		Distribute, track, and manage the ID badges to contractors prior to them being sent out into the field to assess and repair.
Preparation	NEW	X	X				X		If required by circumstances, staff security at locations that don't have power restored after storm.
Preparation	NEW	X	X				X		Monitor remote cameras at facilities to assist with the impact assessment.
Preparation	5005	X	X		X	X	X	X	Consider utilizing Closed Circuit Television (CCTV), water intrusion hardware, or aerial photography/video to allow remote viewing of all critical facilities at locations (indoor or outdoor) that may flood.
Preparation	5259						X		Maintain a supply of contractor badges, magnetic signs and other credentials.
									Staging and Deployment:
Preparation	1033	X	X				X		Review the existing plan for distributing generators and portable pumps.
Preparation	5214	X	X				X		Plan to stage generators as close to the affected area as possible, out of flood areas and out of harm's way.
Preparation	5289	X	X				X		Verify and update the local generator (and vehicles with generators) list/database.
Preparation	NEW	X	X				X		Generator deployment teams should be identified, informed, and assigned areas.
Preparation	NEW	X	X				X		Place local generator dispatch center on alert.
Preparation	5208	X	X				X		Verify that an experienced power technician is available to accompany the deployed generator.
Preparation	NEW	X	X				X		Ensure that maps, keys, and tools are available for those pulling generators.

Response	NEW	X	X		X				Should make employees aware of the escalation procedures to obtain additional resources.
Response	NEW	X	X		X				Should include a trained crisis management team with plans for on-call staffing.
Response	NEW	X	X		X				Should build redundancies into training to ensure employees are cross-trained and able to perform multiple duties if the outbreak causes high absenteeism.
Response	NEW	X	X		X				Should ensure team members are aware of company expectations, and that an appropriate level of personnel management is present on each team.
Response	1038	X	X		X	X			Should consider during all hazard and preplanned events, communicating the response status frequently and consistently to all appropriate employees detailing what processes have been put in place to support customers and what priorities have been established in the response.
Response	5012	X	X		X	X			Should limit access to areas of critical infrastructure to essential personnel.
Response	5062	X	X		X	X			Should staff critical functions at appropriate levels, considering human factors such as workload and fatigue.
Response	5141	X	X		X	X			Should consider restricting, supervising, and/or prohibiting tours of critical network facilities, systems and operations.
Response	5226	X	X				X		Should maintain liaison with local law enforcement, fire department, other utilities and other security and emergency agencies to ensure effective coordination for emergency response and restoration.
Response	0476	X				X	X		Should consider conducting physical site audits after a major event (e.g., weather, earthquake, auto wreck) to ensure the physical integrity and orientation of hardware has not been compromised.
Response	5237	X	X		X	X			Should verify the integrity of system spares and replenish spares, as appropriate, as part of a disaster response and at the conclusion of a disaster response at a facility.
Response	0764	X	X			X			Should implement congestion control mechanisms for transporting VoIP data on IP networks.
Response	0517				X				Should design network elements and associated network management elements with the combined capability to dynamically handle peak load and overload conditions gracefully and queue or shed traffic as necessary (e.g., flow control).
Response	0658	X	X			X	X		Should ensure generator life support systems (e.g., radiator fan, oil cooler fan, water transfer pumps, fuel pumps, engine start battery chargers) are on the essential Alternating Current (AC) buss of the generator they serve.
Response	0674	X	X			X	X		Should initiate or continue a modernization program to ensure that outdated power equipment is phased out of plant considering capabilities of smart controllers, local and remote monitoring and control, alarm systems when updating power equipment, and being integrated into engineering and operational strategies.
Response	1033	X							Should develop a strategy for deployment of emergency mobile assets such as Cell on Wheels (COWs), cellular repeaters, Switch on Wheels (SOWs), transportable satellite terminals, microwave equipment, power generators, HVAC units, etc. for emergency use or service augmentation for planned events (e.g., National Special Security Event (NSSE)).
Response	5206	X	X			X	X		Should maintain sufficient fuel supplies for emergency/backup power generators running at full load and ensure contracted refueling is in place.
Response	5139	X	X		X	X			Should consider establishing procedures for managing personnel who perform functions at disaster area sites.
Response	0574	X	X			X			Should actively monitor and manage the 9-1-1 network components using network management controls, where available, to quickly restore 9-1-1 service and provide priority repair during network failure events. When multiple interconnecting providers and vendors are involved, they will need to cooperate to provide end-to-end analysis of complex call-handling problems.
Response	0608	X	X			X			Should utilize network surveillance and monitoring to keep overflow traffic conditions from adversely affecting networks (this includes OSPs and E9-1-1/NG9-1-1 SSPs).
Response	1008	X	X		X	X			Should use the Incident Command System for incident coordination and control in the emergency operations center and at the incident site.
Response	0785	X	X			X			Should consider secured remote access to critical network management systems for network management personnel working from distributed locations (e.g., back-up facility, home) in the event of a situation where the NOC cannot be staffed (e.g., pandemic).
Response	0789	X	X		X	X			Should consider modifying travel guidelines/policies for use during a pandemic or other crisis situations.

Phase	BP #	<div style="display: flex; justify-content: space-around; text-align: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Network Operators</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Service Providers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Power</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Equipment Suppliers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Public Safety</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Property Managers</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Government</div> </div>							Task	Completed
									General:	
Recovery	NEW	X	X		X				Should have plans in place for where the team and its support resources will stay if they have to travel or relocate to a different facility.	
Recovery	NEW	X	X		X				Should initially identify and monitor changes of the recovery time.	
Recovery	NEW	X	X		X	X	X	X	Should identify objectives for each of the critical business processes that may be interrupted.	
Recovery	NEW	X	X		X				Should develop continuity strategies for each process.	
Recovery	NEW	X	X		X				Should ensure that continuity strategies been integrated in an effective manner and prioritized, particularly if multiple facilities and regions are affected.	
Recovery	NEW	X	X		X				Should identify supply chain dependencies and secure alternative channels in case of disruption, as well as making plans in the event that alternative channels fail.	
Recovery	NEW	X						X	Should determine whether there are alternative premises and facilities within and outside of an affected region that can be used.	
Recovery	NEW	X	X		X				Should determine whether existing transport links likely to be sufficient to get people and resources to alternate sites.	
Recovery	5062	X	X		X	X			Should staff critical functions at appropriate levels, considering human factors such as workload and fatigue.	
Recovery	5206	X	X			X	X		Should maintain sufficient fuel supplies for emergency/backup power generators running at full load and ensure contracted refueling is in place.	
Recovery	0574	X	X			X			Should actively monitor and manage the 9-1-1 network components using network management controls, where available, to quickly restore 9-1-1 service and provide priority repair during network failure events. When multiple interconnecting providers and vendors are involved, they will need to cooperate to provide end-to-end analysis of complex call-handling problems.	
Recovery	1008	X	X		X				Should use the Incident Command System for incident coordination and control in the emergency operations center and at the incident site.	
Recovery	0785	X	X			X			Should consider secured remote access to critical network management systems for network management personnel working from distributed locations (e.g., back-up facility, home) in the event of a situation where the NOC cannot be staffed (e.g., pandemic).	
Recovery	0786	X	X			X			Should consider allowing Equipment Suppliers or third party Service Providers remote secured access to vital hardware components.	