

HOLD UP A MINUTE, FOLKS!



IT'S A SIGN OF THE TIMES!

**FOR THE SAFETY OF UNITED EMPLOYEES
AND THE GENERAL PUBLIC, IF YOU ARE ILL
OR HAVE EXPERIENCED THE FOLLOWING:**

Fever, cough or other respiratory symptoms; and/or traveled within the past 14 days to an area with confirmed COVID-19 cases; and/or have known exposure to someone diagnosed with COVID-19 (coronavirus); then **PLEASE** utilize our night drop facilities, drive-thru facilities (where available) or contact us via:

www.united-cs.com

www.united-cs.com

United Offices:

Cleburne	817-556-4000
Stephenville	254-965-3153
Granbury	817-326-5232
Meridian	254-435-2832
Burleson	817-447-9292
PK Lake	940-779-2985

Thanks, with perseverance and God's blessings we will be able to put all this behind us...soon!

2021 Emergency Response Plan Exercise

10/12/2021

Date/Time/Location

The preparedness review and test was held via TEAMS at the following address:

https://teams.microsoft.com/join/19%3ameeting_MWRmY2FiNGEtNjgwZi00NGU0LTkyMGltZDI3OWYxMTM2ZDlm%40thread.v2/0?context=%7b%22Tid%22%3a%22ce91fdf1-1d35-455c-a720-10044d2c846b%22%2c%22Oid%22%3a%226a65b679-d84e-4579-85bc-df6998d81edf%22%7d

The meeting was held at 2:00pm (CDT) on Tuesday, October 12, 2021.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard, Mark Buckner, Marty Haught, Landy Bennett, Jared Wennermark, Robert Bernhoft, Russell Young, Kevin Keese, Marcellus Nixon, Blake Beavers, Mauri Montgomery, Jason Dillard, Ed Nunez, Jerry Scott, Danny Cornia, Steven Ferguson, Brody Weems, John Davis, Gynger Gossett, Cory Menzel, and Bruce Goss

Background

Starting in the early morning of Sunday, January 10, 2021, United Cooperative Services' territory began receiving extraordinarily heavy amounts of wet snow. The snow continued throughout the day and a large portion of the service territory received 8 plus inches of snow by about 10pm.

Around 10am the snow began to weigh down trees and services across the system, and several smaller (1 to 10 meter) outages began to pop up. While the highest amount of these outages were focused in the Stephenville and Meridian service areas, outages were occurring across the system. At the peak, approximately 4,000 of United's Members experienced approximately 400 individual outages. What made this storm unique was the exceptionally high quantity of smaller outages, with no sustained substation or feeder outages.

Adding to the complexity of this storm was that it occurred on a Sunday. This fact had very minimal effect on United's resources because they had prepared in advance prior to the start of the snow event; however, it did make it more difficult to find potential mutual aid participants due to it being a weekend.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. OMS had resource overload issues.
 - ii. The telephone system was overloaded.
 - iii. Resources were limited at the beginning of the event (both contractor and in-house).
 - iv. Mutual aid was required due to the number of outages and the event occurring on a weekend.

- v. Mobility and access was hindered due to 8 to 10 inches of snow.
 - vi. The event was handled like a FEMA event as a practice run, even though it was extremely doubtful that the event would qualify.
 - vii. MSR's worked from home as a result of being prepared to do so because of preparations that were put in place due to COVID-19.
 - viii. Materials were not an issue during this event.
 - ix. Communications were limited due to a phone line outage in the Stephenville area.
 - x. Temporary housing was supplied to the crews coming from other Cooperatives.
 - xi. Trees were weighted down by heavy snow.
 - xii. Internal communications were difficult due to the lack of a standardized meeting platform and our inability to use ShoreTel due to the overcrowded phone lines.
 - xiii. There were issues getting internal resources during the first several hours of the storm due to the weather being milder in the eastern part of the territory, and the fact that the snowstorm that occurred 10 days earlier had not caused significant damage/outages.
 - xiv. One of the Cooperative's Email filters worked "too well" during the event as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.
 - xv. Due to the progression of the storm, System Operations did not recognize a need for high call volume during the early stages of the event.
 - xvi. With the utilization of multiple contract crews, as well as mutual aid crews, safety crew safety had to be an even greater focus throughout the event.
 - xvii. Several mutual aid crew coordinators were needed during the event.
 - xviii. Communications between the Cooperative's Staff and Leadership were hindered at times and did not occur on a regular basis throughout the event.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
- i. OMS had resource overload issues.
Yes, but updates are needed - In the future, System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.

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- ii. The telephone system was overloaded.
Yes – To potentially improve in this area a committee to research CRC and evaluate the potential usage of CRC in the future will be formed. Additionally, System Operations will review the high call volume criteria and provide additional training as needed.
- iii. Resources were limited at the beginning of the event (both contractor and in-house).
Yes – additional contractors were called in within two hours of the beginning of the event and mutual aid was requested approximately six hours after the event began
- iv. Mutual aid was required due to the number of outages and the event occurring on a weekend.
Yes – mutual aid was requested within approximately six hours of the beginning of the event.
- v. Mobility and access was hindered due to 8 to 10 inches of snow.
Yes
- vi. The event was handled like a FEMA event as a practice run, even though it was extremely doubtful that the event would qualify.
Yes
- vii. MSR's worked from home as a result of being prepared to do so because of preparations that were put in place due to COVID-19.
Not at the time of the event – procedures for working at home and preparing for an ERP event have been established since the January 10-11, 2021 event.
- viii. Materials were not an issue during this event.
N/A
- ix. Communications were limited due to a phone line outage in the Stephenville area.
Yes – these procedures will be aided through the use of the Cooperative's fiber system during future events
- x. Temporary housing was supplied to the crews coming from other Cooperatives.
Yes
- xi. Trees were weighted down by heavy snow.
N/A – while trees were weighed down due to the extraordinary accumulation of heavy/wet snow, additional vegetation management would not have prevented this issue
- xii. Internal communications were difficult due to the lack of a standardized meeting platform and our inability to use ShoreTel due to the overcrowded phone lines.
No – The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to include the outage level (or forecast weather/disaster level) that TEAMS meetings between the Leadership Team and the Staff should be initiated; and when the Staff should begin discussing mutual aid.

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- xiii. There were issues getting internal resources during the first several hours of the storm due to the weather being milder in the eastern part of the territory, and the fact that the snowstorm that occurred 10 days earlier had not caused significant damage/outages.
Yes – contractors were utilized at the earliest stages of the event
- xiv. One of the Cooperative's Email filters worked "too well" during the event as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.
Yes – IS&T has updated the processes and procedures to address the problem that was experienced going forward
- xv. Due to the progression of the storm, System Operations did not recognize a need for high call volume during the early stages of the event.
Yes – additional review and training on these procedures will be undertaken by the System Operations Department
- xvi. With the utilization of multiple contract crews, as well as mutual aid crews, safety crew safety had to be an even greater focus throughout the event.
Yes – Safety was involved at the early stages of the event and they worked very efficiently and effectively with Operations during the storm, and were instrumental in helping to coordinate the mutual crews.
- xvii. Several mutual aid crew coordinators were needed during the event.
Yes, but updates are needed – a list of available mutual aid crew coordinators should be developed for future events, and the personnel on the list should be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage.
- xviii. Communications between the Cooperative's Staff and Leadership were hindered at times and did not occur on a regular basis throughout the event.
No – The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to include the outage level (or forecast weather/disaster level) that TEAMS meetings between the Leadership Team and the Staff should be initiated; and when the Staff should begin discussing mutual aid.

2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:

- a. Preliminary/advanced identification of imminent weather events
Yes – Even though the Cooperative had not experienced snow related outages (or snow accumulations) to the extent experienced during the event in recent years, the potential for the event was recognized.
- b. Damage assessment
Yes – Due to the nature of the outages experienced during this event, damage assessment was not required.

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- c. Acquisition and distribution of materials

Yes – Due to the nature of this event, little to no damage occurred to the Cooperative's distribution facilities, therefore only those materials related to secondary outage restoration (fuses, small quantities of service wire, etc.) were needed.

- d. Oversight, tracking, and coordination of contractors, and mutual aid assistance

Yes, but updates needed – See Item 4 below

- e. Logistics such as housing, feeding, and equipping mutual aid personnel

Yes – mutual aid personnel were properly housed, fed, and equipped during the event.

- f. Coordination, tracking, and documentation of work

Yes

- 3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained?

- a. The event was reviewed after the fact and had the event been a FEMA qualifying event the ERP was determined to be well designed to handle a similar FEMA event in the future.

- 4) What updates are needed to be made to the Emergency Response Plan as a result of this test?

- a. Outage Management System Guidelines need to be updated – System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.
- b. The ERP should be updated to promote preparedness for inside personnel to work from home when feasible prior to a storm/event. One example of this is that in preparation of future storms, MSRs will be requested to take their laptops home so as to allow them to work unresolved calls from home.
- c. A list of available mutual aid crew coordinators will be developed for future events, and the personnel on the list shall be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage.
- d. The "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP needs to be updated to cover how to determine at which outage level (or forecast weather/disaster level) should a TEAMS meeting be initiated and whether a row should be added to the chart to designate when the Staff should begin discussing mutual aid.

January 10-11, 2021 Snow Related Outage Review Notes

January 18, 2021 Post Event Meeting held at 1:30PM in the Burleson Community Room

Attendees – Quentin Howard, Cameron Smallwood, Marty Haight, Landy Bennett, Jared Wennermark, Robert Bernhoft, Russell Young, Kevin Keese, Marcellus Nixon, Blake Beavers, Mauri Montgomery, Jason

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Dillard, Ed Nunez, Jerry Scott, Danny Cornia, Steven Ferguson, Brody Weems, John Davis, Gynger Gossett, Cory Menzel, Bruce Goss

Situation

Starting in the early morning of Sunday, January 10, 2021, United Cooperative Services' territory began receiving extraordinarily heavy amounts of wet snow. The snow continued throughout the day and a large portion of the service territory received 8 plus inches of snow by about 10pm.

Around 10am the snow began to weigh down trees and services across the system, and several smaller (1 to 10 meter) outages began to pop up. While the highest amount of these outages were focused in the Stephenville and Meridian service areas, outages were occurring across the system. At the peak, approximately 4,000 of United's Members experienced approximately 400 individual outages. What made this storm unique was the exceptionally high quantity of smaller outages, with no sustained substation or feeder outages.

Adding to the complexity of this storm was that it occurred on a Sunday. This fact had very minimal effect on United's resources because they had prepared in advance prior to the start of the snow event; however, it did make it more difficult to find potential mutual aid participants due to it being a weekend.

Discussion

Outage Management System – around mid-afternoon System Operations began to experience issues with the OMS running unusually slow. The OMS system was reset to help alleviate the issues with the system, but resetting the OMS involves taking down and then bringing back up a number of interrelated systems which is time consuming. Also, during the afternoon of the outage the crew manager system within the OMS was disabled because in order for it to work correctly individual crew identifiers (trucks) have to be set up and they were not.

A review of the OMS after the outages were restored uncovered that the slow-down of the OMS was a result of a Windows update that was initiated on the Friday before the storm but not finished when the snow event occurred, and additionally a mapping model update that began earlier during the weekend did not finish correctly.

In the future, System Operations and Engineering Services will add a verification that all updates are completed or postponed to the OMS pre-storm check list. Additionally, they will work together to fine tune the use of the crew manager functionality, set up the "trucks" in advance of future storms, and provide additional training as needed.

Interactive Voice Response – During the meeting we discussed the IVR system. In summary, the IVR system performed well during the storm event.

Member Service Representatives – It was brought up during the meeting that due to COVID-19 a number of the MSRs were prepared to work from home. As a result, several MSRs were able to access the system from home and handle unresolved calls without travelling to and from the office, and without being on the icy roads.

In preparation of future storms, MSRs will be requested to take their laptops home so as to allow them to work unresolved calls from home in the future.

Email Filter – Upon review on the Monday after the storm event it was discovered that one of the email filters had worked "too well" as it was filtering out outages that were reported via email. By doing so they were moving them to a junk folder and not allowing them to pass to System Operations.

IS&T has made changes that will correct this issue going forward.

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Cooperative Response Center – Several individuals in the meeting commented that they had never experienced the high number of smaller outages (singles) that occurred during this event, and it was again mentioned that being on a Sunday only exacerbated the situation. During the discussion it was suggested that it may be time to look into potentially using CRC for future events.

Landy will be chairing/forming a committee to research CRC and evaluate the potential usage of CRC in the future.

System Operations – Along with the other items listed above, it was discussed that System Operations will review the high call volume criteria and provide additional training as needed.

Operations and Contractors – Overall the Cooperative's Operations personnel were well prepared for the storm event, and they responded quickly when called. Additionally, United's overhead contractors were brought in to help restore the outages around mid-morning on January 10th. Twenty five of Scott Pole-line's personnel, ten of Great South-West's personnel, five of Bobcat's personnel, and multiple Arbor Experts and Horton personnel assisted with the outage event.

Safety – Brody Weems worked very efficiently and effectively with Operations during the storm helping coordinate the mutual crews. Brody was instrumental in getting the crews to their lodging, coordinating them with their assigned crew coordinator (FER, Engineering Tech, etc.), and providing them with their safety briefing prior to heading to their assigned outage.

As a result of the discussion it was recognized that a list of available mutual aid crew coordinators should be developed for future events. Once the list is created, the personnel on the list shall be provided proper training to allow them to safely and effectively coordinate with the mutual aid crews during a major outage. Brody Weems will work with Jason Dillard and others members of the Leadership Team to create the list of mutual aid crew coordinators; and Brody will work with Mark Dixon to create an implement safety/training program for the crew coordinators.

COVID-19 – The effects of COVID-19 on the outage restoration were discussed. The only negative impact of COVID-19 on the restoration was that it slightly limited the number of Operations personnel that were available due to quarantine. Conversely, earlier preparations related to the virus had a positive impact in that the MSRs were equipped and prepared to work from home which was a more efficient process than driving into an office, and more importantly it was a safer process.

Mutual Aid and TEAMS Leadership Meeting Trigger Points – The point at which the Staff and Leadership should begin having regularly scheduled meetings/discussions concerning the outage events was discussed at the meeting. Additionally, it was discussed when to begin working on acquiring mutual aid and beginning to address the logistical concerns related to mutual aid.

At the February 2021 meeting of the Cooperative's Reliability Committee discussions will take place to determine the best ways to update the "Emergency Response Plan Considerations" chart that currently resides on page 160 of the ERP. This discussion will include determining at what outage level (or forecast weather/disaster level) should a TEAMS meeting be initiated and whether a row should be added to the chart to designate when the Staff should begin discussing mutual aid.

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Date/Time/Location

The preparedness review and test was held via TEAMS at the following address:

https://teams.microsoft.com/join/19%3ameeting_YTcyMDEwODYtZWJiYy00Mzg1LTgyNmUtN2Q1NjU1Njk4OGM2%40thread.v2/0?context=%7b%22Tid%22%3a%22ce91fdf1-1d35-455c-a720-10044d2c846b%22%2c%22Oid%22%3a%226a65b679-d84e-4579-85bc-df6998d81edf%22%7d

The meeting was held at 10:00am (CDT) on Thursday, October 13, 2022.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard	Blake Beavers	Jeff Pannell
Robert Bernhoft	Mauri Montgomery	Reid Carroll
Cory Menzel	Mark Buckner	Mark Dixon
Marcellus Nixon	Ed Nunez	Brody Weems
Marty Haught	Jerry Scott	Robert Sherman
Landy Bennett	John Huffman	Clay Turner
Jared Wennermark	Gynger Gossett	Eric Cagle
Russell Young	Bruce Goss	John Davis
Kevin Keesee	Jason Dillard	

Background

In early July 2022, United's territory was hit by a late season thunderstorm that was isolated to the north central Texas area. At the same time the rest of Texas was experiencing record heat which was resulting in a prediction for record demands on the ERCOT system and high probability of rolling outages across the State of Texas.

While the storm that hit United's territory brought slightly cooler temperatures and some much-needed rain, they also brought heavy lightning and hail to the area, causing over 100 outages across UCS's system which left approximately 5,000 meters without power at the height of the storm. The restoration efforts for these outages were exacerbated by the fact that several of United's employees were on vacation following the July Fourth Holiday, and a number of the Cooperative's IS&T, Billing, and Member Service supervisors were in Kennebunkport, Maine for the annual Milsoft Users Conference.

Phishing emails were being sent to utilities (including United) posing as ERCOT requesting emergency load shed to stabilize the grid. An employee that was busy working the outages accidentally clicked on the link in the email which loaded a Zero-Day ransomware on to their computer and began spreading across the cooperative network.

Burleson POP building has been damaged with water penetrating the roof. Minimal equipment has been damaged needing immediate repairs to the structure as well as redeployment of internet equipment to the Burleson POP. Additionally, there were approximately 12,000 Internet Customers who lost internet access

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across United's territory including the cooperative's offices. The cooperative's Cloud based VOIP Phone system was also rendered unusable because of the damage to the Burleson POP.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available.
 1. Will FEMA pay for internet services damages – Fiber Communications
 - ii. Damage assessment and restoration efforts will need to be coordinated.
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house).
 - iv. Coordination between electric and internet personnel and contractors will be essential.
 - v. Mutual aid agreement or other similar agreements of like kind for fiber.
 - vi. Coordination of internet crews and imbedding Coop personnel with outside contractors.
 - vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently.
 - viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor.
 - ix. Fiber restoration order must be prioritized in a similar fashion as electrical.
 - x. Currently there is not an OMS for fiber.
 - xi. Burleson POP is affected by the storm, and this will have to be addressed.
 - xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island.
 - xiii. The issues caused by the cyber attack will need to be addressed.
 - xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed.
 - xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock.
 - xvi. High probability of rolling outages will need to be addressed.

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- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages.
 - xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage.
 - xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin) United's Emergency Response Plan has several sub sections that address the use of FEMA approved documentation methods in the event of a disaster.
 - 1. Will FEMA pay for internet services damages – Fiber Communications (Quentin)
 - a. Yes – FEMA will reimburse for fiber damage under the same Program that they reimburse for the electric system after a disaster.
 - ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Yes Updating DA Document with following parties
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin) Yes (electrical) – United has a Mutual Aid Agreement with Texas Electric Cooperatives which will provide additional resources in the event of an emergency. No (internet) – United currently does not have a Mutual Aid Agreement in place for the internet infrastructure.
 - iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) We do have the proper guidelines and procedures in place. Internet contractors to be dispatched according to damage assessment and following fiber restoration priorities listed below line item ix. Communication between System OPS and UCS Operations will continue through OSP personnel as updates are appropriate.
 - v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) – There is not a Mutual Aid Agreement for Internet/Fiber.
 - vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) OSP employees will be assigned to a crew/area to assess damage and assist contractors navigating outages safely to report back to System OPS/NOC and OSP Manager. If additional Coop personnel are needed to navigate outside contractors, the coordination of available UCS resources to contractor will be discussed with FER group, Operations, and assigned to a contractor by OSP Manager and said UCS employee's supervisor.
 - vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) Fiber contractors working

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outages during an event will communicate their locations with OSP's. System Operations will coordinate with the OSP's to track the location of the Fiber Crews.

- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) The existing Fiber and Warehouse Disaster Recovery Plan adequately covers this.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay)
 - 1. POP fiber
 - 2. Backbone, Network, Scada fiber
 - 3. Distribution fiber feeds Splitter cabinets/Terminals
 - 4. Drop replacements
- x. Currently there is not an OMS for fiber. (Cory and Marcellus). The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP.
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) The water penetration will be handled under United's current service contracts with existing roofing contractors.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) Currently, all substation SCADA and most DA comm lines enter Burleson through the Brazos MW hut, so they would still be up even with loss of POP in this scenario. The DA comm lines on fiber may be impacted, and adequate processes have not been documented for this scenario. Processes to address loss of interoffice connectivity on fiber and/or MW have also not been documented.
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T). Yes – there are processes to assist if a cyber attack has occurred.
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.) Remote working protocols will be considered and documented in the ERP
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet Services) United keeps a backup stock of all material items needed to construct and maintain the fiber system with the exception of headend (electronic) equipment. The material items are kept at Burleson and/or Johnson/Alvarado.
- xvi. High probability of rolling outages will need to be addressed. (Bruce)
System Operations and System Engineering will continuously monitor the grid status through ERCOT. If rolling outages are called for by ERCOT and we are contacted by Brazos, the System Operator's will meet the load shed obligation within 15 minutes

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and continue to roll circuits on/off until Brazos notifies United that the load shed situation has passed.

- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) System Operations and Network Deployment will communicate before and during a load shed event to ensure that internet dependent circuits are taken into consideration while circuits are being rotated.
- xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) Yes -The hotspot usage document will be reviewed, and updates applied to the ERP.
- xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) System Operations will send out regular emails to internal personnel during the event outlining outages, issues, and any other pertinent information.

2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:

- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin)
Yes – United's Emergency Response Plan has several sub sections that address the use of FEMA approved documentation methods in the event of a disaster.
 - 1. Will FEMA pay for internet services damages – Fiber Communications
 - a. Yes – FEMA will reimburse for fiber damage under the same Program that they reimburse for the electric system after a disaster, and the procedures for preparing to apply for FEMA funding is covered by the ERP.
- ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Yes, but need to update the DA document with listed parties.
- iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin)
Yes (electrical) – The ERP addresses the Mutual Aid Agreement with Texas Electric Cooperatives. No (internet) – United currently does not have a Mutual Aid Agreement in place for the internet infrastructure – a Mutual Aid Agreement of similar arrangements shall be acquired and included in the next ERP update.
- iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) No - Internet Services will need to be added to the ERP for all impacted sections. Internet contractors to be dispatched according to damage assessment and following fiber restoration priorities listed below line item ix. Communication between System OPS and UCS Operations will continue through OSP personnel as updates are appropriate.

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- v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) No – The current ERP does not include a Mutual Aid Agreement for fiber. A Mutual Aid Agreement will be developed over the next several months and included in the ERP as soon as it is available.
- vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) Yes OSP employees will be assigned to a crew/area to assess damage and assist contractors navigating outages safely to report back to System OPS/NOC and OSP Manager. If additional Coop personnel are needed to navigate outside contractors, the coordination of available UCS resources to contractor will be discussed with FER group, Operations, and assigned to a contractor by OSP Manager and said UCS employee's supervisor.
- vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) Yes (Electric and Fiber)
- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) Yes - The existing Fiber Material portion of the ERP adequately covers this scenario.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay) Yes
 1. POP fiber
 2. Backbone, Network, Scada fiber
 3. Distribution fiber feeds Splitter cabinets/Terminals
 4. Drop replacements
- x. Currently there is not an OMS for fiber. (Cory and Marcellus) No - The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP.
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) Yes – The water penetration portion is addressed in the Short-Term recovery portion of the ERP.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) No, the ERP does not address the issues with DA on fiber or interoffice communications (fiber or MW).
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T) No - A cyber-attack protocol will need to be created and updated in the ERP
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.)
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet

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Services) Yes - United keeps a backup stock of all material items needed to construct and maintain the fiber system with the exception of headend (electronic) equipment. The material items are kept at Burleson and/or Johnson/Alvarado.

- xvi. High probability of rolling outages will need to be addressed. (Bruce) Yes (Electric)
 - xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) No - this will need to be addressed in the ERP.
 - xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) Yes -The hotspot usage document will be reviewed, and updates applied to the ERP.
 - xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) Yes.
- 3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained? Yes – the Emergency Response Plan has several sections that cover preparing for FEMA funds applications. Additionally, United's work order system provides process that is easily transferable to FEMA applications.
- 4) What updates are needed to be made to the Emergency Response Plan as a result of this test?
- i. While the disaster may not be a FEMA event, it will need to be handled as a FEMA event until additional information is available. (Quentin)
No updates needed
 - 1. Will FEMA pay for internet services damages – Fiber Communications
 - a. No updates needed
 - ii. Damage assessment and restoration efforts will need to be coordinated. (Jason D., Ed, Jerry, Cory, and Clay) Specification drawings will need to be included in the construction units for damage assessment. Partner module may need to be updated to include Fiber specifications. Personnel and responsibilities will need to be updated.
 - iii. Resources may be limited at the beginning of the event (both contractor and in-house). (Quentin)
No updates needed for the electrical infrastructure; The ERP does need to be updated to address the use of a Mutual Aid Agreement or similar arrangements; and this information shall be acquired and included in the next ERP update.
 - iv. Coordination between electric and internet personnel and contractors will be essential. (Bruce, Clay, Ed, Jerry, and Safety) Yes, update to include internet personnel and responsibilities.

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- v. Mutual aid agreement or other similar agreements of like kind for fiber. (Marcellus) A Mutual Aid Agreement will need to be developed and circulated among other interested Cooperatives. Once the Agreement is executed a copy shall be included with the Emergency Response Plan.
- vi. Coordination of internet crews and imbedding Coop personnel with outside contractors. (Clay) No updates are needed.
- vii. Coordination with System Operations to ensure that Fiber and Electric outages are handled safely and efficiently. (Safety, Eric, and Bruce) No updates are needed.
- viii. Material for the internet infrastructure is only located in two locations (Cleburne and Alvarado), and the material is controlled by the fiber contractor. (Robert S. and Jason G.) No updates are needed.
- ix. Fiber restoration order must be prioritized in a similar fashion as electrical. (Marcellus and Clay) No updates are needed.
- x. Currently there is not an OMS for fiber. (Cory and Marcellus) The internet services OMS functionality is currently being created. Once completed, pertinent documentation will be added to the ERP
- xi. Burleson POP is affected by the storm and this will have to be addressed. (Robert S., John H., and Marcellus) No updates are needed to the facilities portion of the plan.
- xii. Interoffice connectivity and field devices are down as a result of the Burleson POP being damaged leading to Burleson being on an island. (IS&T, Jared, and Internet Service) Processes need to be developed and documented to address DA devices on fiber network and interoffice communications on fiber.
- xiii. The issues caused by the cyber attack will need to be addressed. (IS&T) Protocols for cyber attack follow up will be included in the ERP update.
- xiv. The remoteness of the billing, IS&T, and member services personnel will have to be addressed. (Robert B.)
- xv. OLTs, splitter cabinets, terminals, backbone and distribution fiber will be damaged. As a result, spare items will need to be taken from stock. (Robert S. and Internet Services) No updates are needed to the Fiber Material portion of the plan.
- xvi. High probability of rolling outages will need to be addressed. (Bruce) No updates needed.
- xvii. Internet dependent circuits will need to be reviewed and addressed in terms of the possibility of rolling outages. (John T. and Bruce) Language needs to be added saying that we will verify the internet dependent circuits as part of our Load Shed Review process.

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- xviii. Mobile hotspot usage will need to be reviewed for Cooperative usage. (Marty, Robert B., and Cory) This process will be reviewed and any updates included in the ERP.
- xix. Communications with the public will need to be regularly updated during the outage event, and internal communications will need to be coordinated with system operations. (John D., Marty, and Bruce) No updates needed

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Date/Time/Location

The preparedness review and test was held via TEAMS at the following address:

https://teams.microsoft.com/l/meetup-join/19%3ameeting_MWl2ZTI0MzktODUyNy00NDVklTg2NmUtYzQ0NzEyNzBhMjJk%40thread.v2/0?context=%7b%22Tid%22%3a%22ce91fdf1-1d35-455c-a720-10044d2c846b%22%2c%22Oid%22%3a%226a65b679-d84e-4579-85bc-df6998d81edf%22%7d

The meeting was held at 10:00am (CDT) on Tuesday, September 26, 2023.

Invited/Notified

The Emergency Response Plan preparedness test information was filed with the Public Utility Commission. In addition, Mr. Brian Brumfield, the Texas District Coordinator for District 4A of Texas Department of Emergency Management was notified and invited to attend the test.

Attendees

Quentin Howard	Chris MacIntyre	Heather Wigington
Robert Bernhoft	Mark Buckner	John Taylor
Cory Menzel	Ed Nunez	Reid Carroll
Marty Haught	Jerry Scott	Mark Dixon
Jared Wennermark	Gynger Gossett	Brody Weems
Russell Young	Bruce Goss	Robert Sherman
Kevin Keese	Jason Dillard	Clay Turner
Blake Beavers	Jeff Pannell	Eric Cagle
Jim Galvin	Chad Pence	John Davis

Background

On January 15, 2024, North Texas was hit by a major cold front that brought daytime high temperatures of 15-20 degrees for a seven-day period across United's territory. Additionally, the winds from the cold front averaged 30 mph during the day and 10 mph at night causing the wind chill factors to fall to the single digits during the day and into the negative teens at night. Moreover, there was a related ice storm that effected a large part of United's territory and covered four major operational districts of the Cooperative (Granbury, Stephenville, Burleson, and Cleburne) on the very first day of the event.

The cold front and associated ice storm caused the following:

- Rolling outages across the ERCOT System from 2:00AM Tuesday, January 16, 2024, until 12:00 PM Friday, January 19, 2024.
- Ice damage to approximately 25 miles of United's electric lines, and approximately 10 miles of fiber optic cable; including approximately 150 poles that have been damaged or destroyed.
- Approximately 25,000 ice related, electrical outages across United's system, and approximately 12,000 internet outages.

Issues to be Tested:

- 1) Does United have proper guidelines and procedures in place to handle the situation described?
 - a. Key points of this scenario include:
 - i. Review ERP chart for adequacy.
 - ii. Ensure that employees have appropriate CC limitations.

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- iii. Will need a plan for logistics in 4 areas.
 - 1. Need to request mutual aid/contract personnel for separate and varied areas.
 - iv. Prepare communication packet for outside resources.
 - 1. Phone numbers, contacts, devices.
 - v. Need to ensure System Operations is staffed appropriately.
 - vi. Make sure that The NOC is staffed appropriately.
 - vii. Make sure that ECC and Johnson contractors are on standby and available.
 - viii. Need to ensure that the MSR's are staffed appropriately.
 - ix. Notify the NRTC help desk that increased call volume will be occurring.
 - x. Need to ensure line personnel are assisting with the mobilization of mutual aid and contractor resources.
 - xi. Need to ensure that the FERs are being utilized.
 - xii. Warehousing for equipment and material.
 - xiii. Housing and food for all personnel
 - 1. Employees, contractors, mutual aid.
 - xiv. Damage assessment.
 - 1. When is it triggered?
 - xv. Pre, Post, and During event communications.
 - 1. Website, media list, social media, radio, etc.
 - xvi. Verify and assess communications.
 - 1. Cell networks, office networks, phone network, SAT phones.
 - xvii. Prepare an FCC NORS notification.
 - xviii. Prepare a PUC notification.
 - xix. Ensure OLT backup generators are in place as needed.
 - xx. Respond to ice coverage/issues for facilities and vehicles.
 - xxi. Ensure that reserve fuel resources are available.
 - xxii. Make sure that Safety is in contact with all resources working on the event.
 - 1. Safety meetings and orientations with local OPS and mutual aid.
 - xxiii. Review credentialing needs for the event.
 - 1. Contractors and mutual aid.
- b. Does United have proper guidelines and procedures in place to handle the situation described?
- i. Review ERP chart for adequacy. – Yes, Emergency Response Coordinators will review the chart as soon as the event becomes eminent. A chart is in place; however, it does need to be reviewed and updated to include the various challenges included in this test event.
 - ii. Ensure that employees have appropriate CC limitations. – Accounting. – Yes procedures are in place; however a Formal Process should be developed.
 - iii. Will need a plan for logistics in 4 areas. – HR, Member Services, and Finance will coordinate and address logistical needs.
 - 1. Need to request mutual aid/contract personnel for separate and varied areas. – Yes, the process is in place according to the Chart in the ERP – Senior staff, emergency response, and Operations will coordinate.
 - iv. Prepare communication packet for outside resources. – Member services, energy solutions, IS&T, network security, and HR will coordinate. Yes, procedures are in place

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1. Phone numbers, contacts, addresses, devices.
- v. Need to ensure System Operations is staffed appropriately. – Yes – the ERP addresses staffing in multiple locations throughout the document... specifically in the OMS guidelines section.
- vi. Make sure that The NOC is staffed appropriately. – Eric C. to take care of. – In progress – staffing guidelines are being developed
- vii. Make sure that ECC and Johnson contractors are on standby and available. – Clay and OSP will coordinate. – Yes the procedures are in place; however, the ERP will need to be updated and an official Process will need to be drafted.
- viii. Need to ensure that the MSR's are staffed appropriately. – Gynger and Blake will coordinate. Yes – the procedures are in place – Formal Process may be needed.
- ix. Notify the NRTC help desk that increased call volume will be occurring. – Chris White to take care of. No – A Process needs to be developed.
- x. Need to ensure line personnel are assisting with the mobilization of mutual aid and contractor resources. – Jerry and Ed to coordinate. – Yes, will assign Ops group to outside resources according to lineman classification
- xi. Need to ensure that the FERs are being utilized. – Jason Dillard and Reid will coordinate. Yes, the procedures are in place and a Process is being finalized.
- xii. Warehousing for equipment and material. – Jason Goosen. - Yes, the ERP adequately addresses this scenario.
- xiii. Housing and food for all personnel – HR and facilities. Employees, contractors, mutual aid. Yes, pertaining to facilities- Facilities have community rooms to use as a lunch room for employees and mutual aid. Janitorial hourly rates are established for storm type cleanup.
- xiv. Damage assessment. – Emergency response coordinators with guidance from (Cory) IS&T.
 1. When is it triggered? Yes, the procedures are in place.
- xv. Pre, Post, and During event communications. – Communications. No – Procedures and a Process needs to be developed.
 1. Website, media list, social media, radio, etc.
- xvi. Verify and assess communications. – (Cory) IS&T and (Eric) NOC - Yes, but an update is needed to include internet.
 1. Cell networks, office networks, phone network, SAT phones.
- xvii. Prepare an FCC NORS notification. – Chris Mac. No, a formal Process needed.
- xviii. Prepare a PUC notification. – Yes – the processes are in place that addresses the issue of notifying the necessary outside entities.
- xix. Ensure OLT backup generators are in place as needed. – John Taylor No, a formal Process is needed.
- xx. Respond to ice coverage/issues for facilities and vehicles. – Facilities and Operations Yes - Facilities has ice melt on hand and designated walkway areas around offices to keep ice free.
- xxi. Ensure that reserve fuel resources are available. – ERC's and Operations/Mechanics. Yes – Procedures are in place.
- xxii. Make sure that Safety is in contact with all resources working on the event. – Safety, Operations, and ERC's. Yes – procedures are in place and Safety will maintain contact with all resources through Operations and the ERC's.

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1. Safety meetings and orientations with local OPS and mutual aid. **Yes, procedures are in place and Safety will conduct Safety meetings and or tailboards with Operations, ERC's, and Mutual Aid individuals and the meetings will be facilitated at the nearest UCS office when feasible.**
 - xxiii. Review credentialing needs for the event. – ERC's and communications.
 1. Contractors and mutual aid. **Yes – Safety will retrieve credentials from mutual aid individuals when safety meetings are held.**
- 2) Does the Cooperative's Emergency Response Plan address the listed situation in terms of:
- i. Review ERP chart for adequacy. **Yes - The ERP addresses the situation; however, it will need to be updated according to this event and to include logistics for multiple Cooperative areas being affected at the same time.**
 - ii. Ensure that employees have appropriate CC limitations. – Accounting. **Yes, the ERP addresses this.**
 - iii. Will need a plan for logistics in 4 areas. – HR, Member Services, and Finance will coordinate and address logistical needs. **Yes, the ERP addresses this situation; however, updates may be needed to ensure that logistical needs are met in numerous areas adequately.**
 - iv. Need to request mutual aid/contract personnel for separate and varied areas. **Yes, the process is in place according to the Chart in the ERP – Senior staff, emergency response, and Operations will coordinate.**
 - v. Prepare communication packet for outside resources. **Yes, the ERP addresses this issue; however, an update may be necessary to address a disaster in multiple districts.**
 - vi. Need to ensure System Operations is staffed appropriately. **Yes, the process is in place according to the Chart in the ERP – Senior staff, emergency response, and Operations will coordinate.**
 - vii. Make sure that The NOC is staffed appropriately. **No, this will need to be addressed in the internet section of the ERP.**
 - viii. Make sure that ECC and Johnson contractors are on standby and available. - Clay and OSP will coordinate. **No, this will need to be addressed in the internet section of the ERP.**
 - ix. Need to ensure that the MSR's are staffed appropriately. **Yes, MSR staffing is addressed in the ERP.**
 - x. Notify the NRTC help desk that increased call volume will be occurring. **No, this will need to be addressed in the internet section of the ERP.**
 - xi. Need to ensure line personnel are assisting with the mobilization of mutual aid and contractor resources. **Yes, however this item needs to be reviewed in regard to multiple districts being affected and necessary updates need to be made.**
 - xii. Need to ensure that the FERs are being utilized. **No – the new Process needs to be included/noted in the ERP update.**
 - xiii. Warehousing for equipment and material.
 - a. **Yes, the ERP adequately addresses this situation.**
 - xiv. Housing and food for all personnel – **Yes, however this item needs to be reviewed in regard to multiple districts being affected and necessary updates need to be made.**
 - a. Employees, contractors, mutual aid.

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- xv. Damage assessment. Yes, however this item needs to be reviewed in regard to multiple districts being affected and necessary updates need to be made.
 - a. When is it triggered?
 - xvi. Pre, Post, and During event communications. No, the ERP will need to be updated.
 - a. Website, media list, social media, radio, etc.
 - xvii. Verify and assess communications. No, the ERP will need to be updated.
 - a. Cell networks, office networks, phone network, SAT phones.
 - xviii. Prepare an FCC NORS notification. No, this will need to be addressed in the internet section of the ERP.
 - xix. Prepare a PUC notification. Yes – the ERP addresses the issue of notifying the necessary outside entities.
 - xx. Ensure OLT backup generators are in place as needed. No, this will need to be addressed in the internet section of the ERP.
 - xxi. Respond to ice coverage/issues for facilities and vehicles. No - The Facilities icing scenerio is not addressed specifically in the ERP however it is addressed in the cooperatives standard operating procedure.
 - xxii. Ensure that reserve fuel resources are available. Yes, however this item needs to be reviewed in regard to multiple districts being affected and necessary updates need to be made.
 - xxiii. Review credentialling needs for the event.
 - a. Contractors and mutual aid. No, the ERP does not specify that credentials from contractors and mutual aid individuals will be obtained during safety meetings.
- 3) Since the situation described has the potential of qualifying as a FEMA event, are United's processes and procedures appropriately designed to ensure that proper FEMA documentation and reporting will be maintained? Yes, United's processes and procedures are designed to properly document a FEMA event utilizing the Cooperative's standard CIS/Work Order System.
- 4) What updates are needed to be made to the Emergency Response Plan as a result of this test? Any and all necessary updates are specified above under Question 2.

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Basic Incident Command System for Initial Response

ICS-200

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Introduction to Incident Command System, ICS-100



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IS-00800.d

National Response Framework, An Introduction



Issued this 18th Day of March, 2022



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IS-00700.b

**An Introduction to the National Incident
Management System**

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IS-100.C:

INTRODUCTION TO INCIDENT COMMAND SYSTEM, ICS-100

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IS-200.C:

BASIC INCIDENT COMMAND SYSTEM FOR INITIAL RESPONSE ICS-

200

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IS-700.B:

**AN INTRODUCTION TO THE NATIONAL INCIDENT MANAGEMENT
SYSTEM**

Issued this 13th Day of February, 2024



0.40 IACET CEU

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IS-800.D:

NATIONAL RESPONSE FRAMEWORK, AN INTRODUCTION

Issued this 13th Day of February, 2024

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Superintendent
Emergency Management Institute
Federal Emergency Management Agency

0.30 IACET CEU



TAB 6

FIBER OPTICS FACILITIES AND INTERNET

Internet Services Department
Emergency Response Plan
Version 1.2024

United Cooperative Services, Inc.

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PRE-EVENT WATCH

The pre-event watch is prior to the arrival of an anticipated event. This is a precautionary measure that would follow a weather broadcast of severe nature or extreme risk of fire danger. The Network Operation Center (NOC) will monitor the situation and advise the Internet Services Managers. The NOC and/or Internet Services Managers may request the assistance of NRTC help desk to answer calls and be prepared for large and extended outages. If impact is predicted within a particular focal area, the NOC will prepare by identifying critical services, potential scope of impact and prepare a plan of action effort.

EMERGENCY LEVEL DESCRIPTIONS

- 1 – Minor
- 2 – Major
- 3 – Critical

Level 1 Emergencies:

Emergency /outage where Internet crews are able to restore services within 8 hrs.

- Expected outage time of <8hrs; or
- Impact of <100 members
- INITIATED BY: NOC, HELP DESK, NRTC

Level 2 Emergencies:

Emergency /outage where Internet crews are able to restore services within <24 hrs.

- Expected outage time of <24hrs; or
- Impact of <1000 members
- INITIATED BY: NOC, HELP DESK, NRTC

Level 3 Emergencies:

Emergency /outage where Internet crews are able to restore services within >24 hrs.

- Expected outage time of >24hrs; or
- Impact of >1000 members
- INITIATED BY: NOC, HELP DESK, NRTC

Note: Internet Services will prepare as outlined. Service restoration times may vary dependent upon electrical restoration times.

OUTSIDE PLANT: Emergency Level Descriptions

Level 1 Emergencies

- Distribution fiber cut
- Localized storm/fire damage
- Splitter cabinet destroyed.
 - OSP should be notified to coordinate OSP team for damage assessment.
 - NOC to communicate all updates to UCS contacts via Status.io and member emails.
 - Notify contractors of event
 - Prioritize damage and repairs.
 - Sync with system operations on electrical damage/circuit repair
 - Coordinate with contractors to repair
 - Network/backbone
 - Distribution
 - Drops
 - Coordinate with Network Operations/Help Desk to verify connectivity as repairs are made.

Level 2 Emergencies

- Backbone fiber cut
- OLT cabinet destroyed.
- Damage to POP and equipment within
- Widespread storm/fire damage
 - OSP should be notified to coordinate OSP team for damage assessment.
 - NOC to communicate all updates to UCS contacts via Status.io and member emails.
 - Notify contractors of event and have all-hands-on-deck.
 - Prioritize damage and repairs.
 - Sync with system operations on electrical damage/circuit repair
 - coordinate with contractors to repair
 - Network/backbone
 - Distribution
 - Drops
 - Coordinate with Network Operations/Help Desk to verify connectivity as repairs are made.

Level 3 Emergencies

- Regional storm/fire damage through much of UCS territory
- UCS POP location destroyed
 - OSP should be notified to coordinate OSP team for damage assessment.
 - NOC to communicate all updates to UCS contacts via Status.io and member emails.
 - Notify contractors of event and have all-hands-on-deck.
 - Request mutual aid for material/labor.
 - Prioritize damage and repairs.
 - Sync with system operations on electrical damage/circuit repair
 - Coordinate repairs based on priority.

- Network/backbone
 - Distribution
 - Drops
- Coordinate with Network Operations/Help Desk to verify connectivity as repairs are made.
- Determine and evaluate the need for FEMA report and NORS notifications.

NETWORK OPERATIONS CENTER (NOC) Emergency Level Descriptions

Level 1 Emergencies

- OLT Card failure
 - Dispatch tech/on-call
- Power loss to OLT cabinet
 - Determine ETR of electrical outage.
 - Contact SysOps
 - Check actual current load of OLT.
 - Calculate run time under load.
 - Deploy portable generator trailer.
 - ETR will exceed battery run time.
 - Any outage that will last more than 4 hrs.
- Hardware in PoP
 - Dispatch tech/on-call
- Carrier circuit down
 - Network Operations to contact all on-call.
 - Communicate all updates to UCS contacts via Status.io and member emails.
 - Identify and locate outage source.
 - Assess damage and effect repairs.
 - In extended power loss, deploy generator.
 - Open tickets with vendor(s) to assist as necessary.

Level 2 Emergencies

- OLT cabinet down
 - Dispatch tech/on-call
- OLT cabinet destroyed
 - OSP should be notified to coordinate OSP team for damage assessment.
 - Communicate all updates to UCS contacts via Status.io and member emails.
 - Coordinate with OSP/Contractors
 - Tech/on-call to support field duties
 - NOC to support configuration restoration duties.
- Limited network components compromised by bad actors.
 - Network Operations to immediately contact Dept. Heads
 - Communication/Inclusion/Distribution to be determined by Dept. Heads
 - Engage Network Security partners.
 - Engage Insurance Company Cyber Team
 - Assess impact, employ mitigation strategy.
 - Isolate infected device(s) from network.
 - Determine root cause/infected device(s)
 - Contact vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc.
 - Implement work around, if possible
- Core network hardware failure affecting service.
 - Dispatch tech/on-call

- Leverage redundant equipment from neighboring POP to re-activate service in damaged POP.
- Enact SLA with vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc.
- Multiple carrier circuits down
 - Network Operations to contact carrier vendor(s) NOC.
 - Communicate all updates to UCS contacts via Status.io and member emails.
 - Implement circuit re-route, if possible
 - Enact SLA with vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc.

Level 3 Emergencies

- Entire PoP location destroyed.
 - Network Operations to contact all Internet Services Departments
 - Communicate all updates to UCS contacts via Status.io and member emails.
 - Implement plan to re-route traffic to functioning location.
 - Assess damage and effect repairs.
 - Enact SLA with vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc.
- Equinix co-location sites inoperable
 - Network Operations to contact all Internet Services Departments.
 - Communicate all updates to UCS contacts via Status.io and member emails.
 - Coordinate with carriers to connect to internet from alternate locations.
- Network disabled or ransomed by bad actors.
 - Network Operations to immediately contact Dept. Heads
 - Communication/Inclusion/Distribution to be determined by Dept. Heads
 - Engage Insurance Company Cyber Team
 - Assess impact, employ mitigation strategy.
 - Determine root cause/infected device(s)
 - Isolate infected device(s) from network.
 - Contact vendor(s) to assist as necessary, Adtran, Juniper, Dell, etc.
 - Implement work around, if possible

DUTIES FOR ALL GROUPS

Network Operations Manager

- Determine Emergency Level per scope of outage, determined by NOC.
- Coordination and direction for the operation of activities required for the restoration of the SCADA/AMI, interoffice network, and internet subscriber network during the entire period of the emergency.
- Staff the facilities at the Network Operations Center (NOC) for the required operational restoration functions.
- Provide central communications and status information updates to the UCS Managers and UCS Communications Coordinator.
- Triage and manage incident/restoration.
- Determine extent of service interruptions by subscriber count and area.
- Maintain event logs for duration of the incident.
- Determine staffing requirements and call out appropriate personnel.
- Coordinate with OSP for outside contractor assistance.
- Coordinate with Service Delivery and Deployment to support restoration efforts.
- Determine and execute relief schedules during extended service restoration.

Outside Plant Manager

- Coordinate with NOC to determine size/scope of event.
- Provide communications/updates to NOC.
- Deployment of UCS OSP resources to incident location(s)
- Triage restoration efforts
- Coordinate with warehouse and OSP contractor for materials/logistics
- Coordinates activity of all UCS and Contract OSP personnel
- Ensure all UCS field personnel follow safe work practices.
- Determine and execute relief schedules during extended service restoration.

Network Deployment Manager

- Coordinate with NOC to prioritize network repair/restoration.
- Determine scope of site / field repairs and restoration
- Coordinate with warehouse and contractors for materials/logistics
- Coordinate with OSP to focus restoration efforts.
- Coordinate / manage equipment contractors.
- Manage restoration efforts of field equipment (OLTs, routers, etc.)
- Coordinate with NOC to verify restoration of equipment.
- Deployment of backup generators
- Determine and execute relief schedules during extended service restoration.

Internet Subscriber Service Manager

- Notify/coordinate incident details to NRTC and MSRs
- Coordinate with NOC to triage / manage incident.
- Coordinate with Business Development regarding key accounts
- Coordinate with Communications Dept. to establish standardized message to members.
- Manage/triage salesforce tickets.
- Coordinate with Internet Technician Coordinator to determine UCS and contract staffing needs.

- Determine and execute relief schedules during extended service restoration.

Network Operations Technicians

- Monitor and report on changes to SCADA/AMI, core network, edge network, backbone rings and subscriber aggregations systems.
- Monitor and report on status of large commercial connectivity.
- Maintain a list of UCS field personnel on duty and coordinate with contract resources to maintain safety and accountability of deployed personnel
- Verify services once reported restored

Help Desk

- Answer member outage calls courteously, calmly, and professionally.
- Provide a list of members with special, life-support, or other critical problems.
- Communicate with and identify key account customers for the Operations Group.
- Coordinate and assemble phone answerers as requested.
- Continually train personnel in the outage management program and the capabilities of the phone answering system.
- Work with NRTC to ensure proper communications with members.

Tier 1 / NRTC

- Answer member outage calls courteously, calmly, and professionally.
- Collect complete information using outage management program.
- Coordinate with NOC to identify outage areas
- Escalate ticket / Salesforce ticket creation.

OSP Contract Resources

- Repair, sectionalize, or restore all damaged fiber optic systems to acceptable operating condition during the emergency.
- Provide adequate personnel and equipment to repair or sectionalize damaged equipment and line.
- Provide personnel for patrolling circuits.
- Assist in the determination of severity and extent of damage to fiber optic network.
- Coordinate material requirements with Procurement/Warehouse to the material supplier.

OSP Coordinators / Representatives

- Coordinate, in the field, the execution of the fiber optic restoration plan by maximizing the available crews, equipment, and material.
- Establish a crew rotation plan when restoration of the system is exceeding 16 hours.
- Meet daily with the Outside Plant Contract Resources group to assist in the development of the Restoration Plan for the following day.
- Periodically review and determine the best utilization of equipment and personnel.
- Request mechanic personnel for emergency equipment and vehicular repair as needed.
- May guide out-of-town crews to the damaged areas.

Member Care Coordinators

- Includes any and/or all remaining employees of the Cooperative. Their duties will be assigned by the Manager (on duty). Their duties will vary from day-to-day and will address any special needs of the membership, cooperative, or the workforce.
- The following list of duties and activities are not limited to, but may include:
- May be directed to determine the extent of damage by field inspection.
- May provide guidance to damaged areas and accumulate material lists.
- May coordinate and deliver materials and meals to Construction Crews.
- May visit members that are on life support systems if communication system is not working.
- May provide additional support to critical or "key" accounts.
- May help transport employees to and from homes or from one crew location to another.
- Confirm restoration of service by follow-up phone call.

Communications Group

- Coordinate news releases and public service announcements with the General Manager. Establish and maintain information flow to the membership and the employee service group.
- Responsible for preparing news releases, public service announcements, and other pertinent information as may be deemed necessary for general instructions, safety, and wellbeing of the membership.
- Updates the Board of Directors on the current situation as advised by the Operations Superintendent and General Manager.
- Issue updated information on a timely basis.

PUBLIC RELATIONS

Internet Services - Notify the Communications Representative of any media inquiries or situations that need media or member advisories.

OSP Crews - Keep NOC, Internet Member Service Manager, Helpdesk and NRTC fully informed of any situation that would invite media attention. In situations where the media is on location, cooperate fully to direct media to OSP Manager and OSP Manager will provide communications contact information.

Complaint Handling Procedures

During an emergency, the Internet Services Department will be staffed in a staggered manner to facilitate supporting members and OSP crews. Member calls that are routed to 24x7 support by NRTC will be redirected to a pre-recorded message indicating that United is aware of the outage. Complaints will be reviewed and managed by the UCS Communications Department and distributed to the appropriate group.

Critical Service Members

Critical service members as defined by the Internet Services Department include:

- Hospitals or Critical Care Centers
- Emergency Services (Police, PSAP, Fire, EMS)
- Critical Infrastructure (Water, Gas, Internal Electric)

When telephone service is not available, the cooperative will attempt to notify critical service members either before or at the onset of an emergency through broadcast radio and television announcements, working with law enforcement officers and utility personnel in the field.

RISK MITIGATION (Standard)

OSP

- Wind dampers are placed on all spans exceeding 300.'
- Annual line inspections on backbone and distribution fiber
- Inspect 15% of drops weekly.
- Maintain adequate levels of inventory on materials (fiber, cabinets, splice closures, and hardware) at multiple coop locations and 1 contractor yard.

Network Operations

- All servers are backed up offsite every 4 hours with a 14-day running history.
- OLT and POP battery maintenance and replacement (if needed) is conducted annually.
- OLT preventative maintenance is conducted bi-annually.
- All network components are monitored 24x7 with email alerts.
- Maintain a complete stock of critical spares and/or service contracts with 4hr replacement.

NETWORK OUTAGE REPORTING SYSTEM (NORS)

NORS notifications are required if:

- The outage directly impacts a 911 facility such as a PSAP.
- A total of 900,000 voice user minutes results in a complete loss.
- Either of these qualifiers result in an outage state >30 minutes

NORS Reporting

- For 911 facilities, notifications are required within 240 minutes from the start of the outage.
- For 900,000 voice user minutes, notifications are required within 24 hours from the start of the outage
- Final reports are due within 30 days of discovering the outage

The NOC will capture all outage start and stop times

United would employ Momentum to estimate daily user minutes in the event of a long-duration outage affecting VoIP service(s).

As of February 2024, United does not provide VoIP service(s) to a qualifying 911 member/customer.

NORS Websites:

NORS Login: <https://www.fcc.gov/licensing-databases/fcc-user-login>

NORS New User Registration: <https://apps2.fcc.gov/fccUserReg/pages/createAccount.htm>

NORS Password Reset: <https://apps2.fcc.gov/fccUserReg/pages/reset-passwd-identify.htm>

NORS Profile Update: <https://apps2.fcc.gov/fccUserReg/pages/login.htm>

CYBER SECURITY

Internet Services has taken a similar stance as the enterprise network on cyber security and recovery. In the event of a cyber incident, the Network Operations Manager/Department will take measures to isolate the threat and recover services as quickly as possible. Internet Services will immediately notify department heads and request support from the Network and Security Administrator and/or the third-party security agencies currently being utilized by UCS.

All Internet Services network servers have endpoint protection installed, along with endpoint management software to ensure the latest patches and updates are installed. Network firewalls are in place with policies to prevent intrusion from internet sourced attacks.

SHARED SERVICES

United's Internet Services department will leverage the Cooperative's overall plan as it relates to any Human Resources plans, corporate policy adherence, relocation requirement, physical building disaster recovery efforts, warehouse operations, macro-level personnel decisions, i.e., facilitating displaced employees, environmental activities, FEMA documentation, and general office related activities.