

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska) Application No. 911-076
Public Service Commission, on) /PI-249
its own motion, conducting an)
investigation into the 911)
service outage that began on) ORDER OPENING INVESTIGATION
September 2, 2023 in areas of)
Nebraska served by Windstream)
and its affiliates.) Entered: September 12, 2023

BY THE COMMISSION:

O P I N I O N S A N D F I N D I N G S

The Nebraska Public Service Commission ("Commission") opens the above-captioned investigation into a multi-hour disruption of 911 service in southeast Nebraska that resulted from a system-wide telecommunications outage experienced by Windstream customers during Saturday, September 2, 2023 and Sunday, September 3, 2023. Based upon preliminary information and press reports, it appears that a fire at a Windstream facility in Lincoln, combined with the failure of a backup generator and the depletion of backup batteries serving the same facility, led to a shutdown of Windstream service, including 911 service, to Windstream customers in southeast Nebraska for a period of several hours. During the outage, calls to 911 call centers (also known as public safety answering points or "PSAPs") in the affected area were delivered either sporadically or not at all.¹

Commission staff has preliminarily determined that at least 18 of the 20 PSAPs connected to the Windstream system experienced a disruption to 911 service as a result of the outage. For some PSAPs, both 911 calls and admin lines were affected. For other PSAPs, the outage affected only calls to 911 and not calls to admin lines, or vice versa.

Accordingly, the Commission opens this investigation to determine the cause or causes of this disruption to 911 service,

¹ The outage addressed by the investigation in this Docket appears to be unrelated to a separate outage that occurred on August 31, 2023 to September 1, 2023 and disrupted 911 service in areas of Nebraska where Lumen is the 911 service provider ("Lumen Outage."). The Commission is conducting an investigation into the Lumen Outage under a separate docket. *See, In the Matter of the Nebraska Public Service Commission, on its own motion, conducting an investigation into the 911 service outage that began on August 31, 2023 in areas of Nebraska served by Lumen and its affiliates, App. No. 911-075/PI-248, Order Opening Investigation (Sept. 12, 2023).*

EXHIBIT

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SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-076/PI-249

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including, without limitation, an evaluation of all aspects of the 911 system that were impacted, in order to ascertain what the actions may be warranted by the Commission to respond to this incident and prevent future such occurrences.

One aspect of this inquiry will be to determine why a fire and loss of electrical power at a single Windstream facility resulted in a loss of 911 service to a large portion of southeast Nebraska. 911 service providers are required to maintain geographically diverse redundant connections between PSAPs and the telecommunications infrastructure that delivers 911 calls to their intended destinations.² The Commission seeks both an explanation of why the redundancy required of Windstream failed in this instance and a solution to prevent this from happening again.

Among other things, the Commission will also seek to determine whether PSAPs and other Windstream customers received timely notification of the 911 service disruption from responsible parties.³ However, none of the above examples should be deemed to be a limitation on the scope of this inquiry. The Commission reserves the right to follow this investigation wherever it leads.

O R D E R

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that the above-captioned investigation be, and hereby is, opened.

ENTERED AND MADE EFFECTIVE at Lincoln, Nebraska, this 12th day of September, 2023.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:


Eric M. Hamler



Kevin Stocker



Chair

ATTEST:


Thomas W. Golden
Executive Director

² See, e.g., 47 C.F.R. § 9.19.

³ See, e.g., 47 C.F.R. § 4.9.

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska) Application No. 911-076/PI-249
Public Service Commission, on)
its own motion, conducting an)
investigation into the 911) ORDER ADOPTING PROCEDURAL
service outage that began on) SCHEDULE AND SETTING HEARING
September 2, 2023 in areas of)
Nebraska served by Windstream)
and its affiliates.) Entered: December 4, 2023

BY THE HEARING OFFICER:

On September 12, 2023, the Nebraska Public Service Commission opened the above-captioned investigation into a multi-hour disruption of 911 service in southeast Nebraska that resulted from a system-wide telecommunications outage experienced by Windstream customers during Saturday, September 2, 2023 and Sunday, September 3, 2023.

On November 28, 2023, a planning conference was held with the parties in this matter.

As a result, of the planning conference several issues were decided. Therefore, this Order serves to memorialize those decisions and provide a timeline for proceeding in this docket. I find that the following schedule should be adopted:

Table with 2 columns: Date, Event. Rows include: Monday, December 11, 2023 (All written discovery responses due), Wednesday, December 13, 2023 (Final date to exchange witness and exhibit lists), Wednesday, December 20, 2023 at 9:00 a.m. CST (Hearing)

Furthermore, hearing on this matter shall be set for Wednesday, December 20, 2023, at 9:00 a.m. Central Time in the Commission Hearing Room, 1200 N Street, Suite 300, Lincoln, Nebraska. This Hearing shall be held in person; however, remote access to the hearing will be available via WebEx at the following link: https://psc.nebraska.gov/stream (case sensitive).

If auxiliary aids or reasonable accommodations are needed for attendance at the meeting, please call the Commission at (402) 471-3101. For people with hearing/speech impairments, please call

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-076/PI-249

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the Nebraska Relay System at (800) 833-7352 (TDD) or (800) 833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter.

O R D E R

IT IS THEREFORE ORDERED by the Hearing Officer that the proposed procedural schedule set forth herein be, and is hereby, adopted.

IT IS FURTHER ORDERED that hearing on this matter is scheduled for **Wednesday, December 20, 2023, at 9:00 a.m. Central Time**, in the Commission Hearing Room, 1200 N Street, Suite 300, Lincoln, Nebraska.

ENTERED AND MADE EFFECTIVE at Lincoln, Nebraska, this 4th day of December, 2023.

NEBRASKA PUBLIC SERVICE COMMISSION

By: 

Dan Watermeier
Hearing Officer

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Pg 4

STATE OF NEBRASKA PUBLIC NOTICES

NEBRASKA PUBLIC SERVICE COMMISSION

300 The Atrium, 1200 N St.,
P.O. Box 94927, Lincoln, NE 68509

The following applications(s) may be inspected at the office of the Commission during regular business hours. Protests must be filed with the Nebraska Public Service Commission and the Applicant in the manner and within the time prescribed in Section 14 of the Commission's Rules of Procedure.

B-2078.02 In the Matter of the Application of Lexington Party Bus, LLC, Lexington, seeking authority to extend its authority as a common carrier in Nebraska intrastate commerce in the transportation of passengers by Bus in Special Party and Charter service between all points in Nebraska over irregular routes. HHS Designation: No.

**NOTICE OF PUBLIC HEARING
APPLICATION NO. 911-076/PI-249:**

The Commission, on its own motion, conducting an investigation into 911 service Outages occurring in areas of Nebraska served by Windstream and its affiliates:

All persons interested in the above-referenced application are hereby notified that this matter has been scheduled for public hearing starting at **9:00 a.m. central time on December 20, 2023**, in the Nebraska Public Service Commission Hearing Room, 300 The Atrium, 1200 "N" Street, Lincoln, Nebraska.

Remote access to the hearing will be available via WebEx or by telephone. The Commission WebEx may be accessed by the following link: <https://psc.nebraska.gov/stream> Those wishing to attend anonymously may use "anonymous" for their name and "a@b.com" for their email address. To attend by telephone, dial 408-418-9388, then enter 1462735624 when prompted for an access code. Visit the **PSC Meeting/Hearing information** page for additional details

If auxiliary aids or reasonable accommodations are needed for attendance at a Commission meeting, please call the Commission at 402-471-3101. For people with hearing/speech impairments, please call the Commission at 402-471-0213 (TDD) or the Nebraska Relay System at 800-833-7352 (TDD), or 800-833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter.

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EXHIBIT

NEZ

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PUBLIC NOTICES

NOTICE OF PUBLIC HEARING
NEBRASKA PUBLIC SERVICE
COMMISSION 300 The Atrium,
1200 N Street P.O. Box 94927
Lincoln, Nebraska 68509-4927
APPLICATION NO. 911-076
/PI-249

The Commission, on its own motion, conducting an investigation into 911 service Outages occurring in areas of Nebraska served by Windstream and its affiliates. All persons interested in the above-referenced application are hereby notified that this matter has been scheduled for public hearing starting at 9:00 a.m. central time on December 20, 2023, in the Nebraska Public Service Commission Hearing Room, 300 The Atrium, 1200 "N" Street, Lincoln, Nebraska. Remote access to the hearing will be available via WebEX or by telephone. The Commission WebEX may be accessed by the following link: <https://psc.nebraska.gov/stream> Those wishing to attend anonymously may use "anonymous" for their name and "a@b.com" for their email address. To attend by telephone, dial 408-418-9388, then enter 1452735624 when prompted for an access code. Visit the PSC Meeting/Hearing information page for additional details.

If auxiliary aids or reasonable accommodations are needed for attendance at a Commission meeting, please call the Commission at 402-471-3101. For people with hearing/speech impairments, please call the Commission at 402-471-0213 (TDD) or the Nebraska Relay System at 800-533-7352 (TDD), or 800-833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter.

1197063 12/8 ZNEZ

AFFIDAVIT

State of Florida, County of Orange, ss:

I, Jesse Sassaman, being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the county of Douglas and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:

Dec. 8, 2023

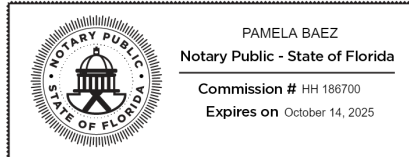
NOTICE NAME: 911-076 PI-249 Windstream Hearing

PUBLICATION FEE: \$59.40

(Signed) *Jesse Sassaman*

VERIFICATION

State of Florida
County of Orange



Subscribed in my presence and sworn to before me on this: 12/08/2023

[Signature]

Notary Public

Notarized online using audio-video communication

NEBRASKA PUBLIC SERVICE
COMMISSION
300 The Atrium, 1200 N Street
P.O. Box 94927
Lincoln, Nebraska 68509-4927

NOTICE OF PUBLIC HEARING

APPLICATION NO. 911-076/PI-249 :
The Commission, on its own motion,
conducting an investigation

into 911 service Outages occurring in areas of Nebraska served by Windstream and its affiliates:

All persons interested in the above-referenced application are hereby notified that this matter has been scheduled for public hearing starting at 9:00 a.m. central time on **December 20, 2023**, in the Nebraska Public Service Commission Hearing Room, 300 The Atrium, 1200 "N" Street, Lincoln, Nebraska.

Remote access to the hearing will be available via WebEx or by telephone. The Commission WebEx may be accessed by the following link: <https://psc.nebraska.gov/stream> Those wishing to attend anonymously may use "anonymous" for their name and "a@b.com" for their email address. To attend by telephone, dial 408-418-9388, then enter 1462735624 when prompted for an access code. Visit the PSC Meeting/Hearing information page for additional details

If auxiliary aids or reasonable accommodations are needed for attendance at a Commission meeting, please call the Commission at 402-471-3101. For people with hearing/speech impairments, please call the Commission at 402-471-0213 (TDD) or the Nebraska Relay System at 800-833-7352 (TDD), or 800-833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter. 2023, (12) 8 - Fridays, ZNEZ

EXHIBIT
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SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska) Application No. 911-076
Public Service Commission, on) /PI-249
its own motion, conducting an)
investigation into 911 service) ORDER EXPANDING INVESTIGATION
outages occurring in areas of) AND REVISING CAPTION
Nebraska served by Windstream)
and its affiliates.) Entered: December 5, 2023

BY THE COMMISSION:

O P I N I O N S A N D F I N D I N G S

On September 12, 2023, the Nebraska Public Service Commission ("Commission") entered an order opening an investigation into a multi-hour disruption of 911 service that resulted from a system-wide telecommunications outage experienced by Windstream customers in southeast Nebraska on Saturday, September 2, 2023 and Sunday, September 3, 2023 ("September 2023 Windstream Outage").

On Tuesday, November 28, 2023, 911 service was again disrupted in the Windstream service area of Nebraska ("November 2023 Windstream Outage"). According to initial reports (and unlike the more widespread telecommunications disruption experienced during the September 2023 Windstream Outage), the November 2023 Windstream Outage appears primarily to have impacted the delivery of 911 calls and non-emergency telephone service to public safety answering points in the Southeast Region of PSAPs. Fortunately, according to the information available as of the date of this Order, the November 2023 Windstream Outage was resolved, with full service restored, in less than an hour.

Like the September 2023 Windstream Outage, the loss of 911 service to a large portion of southeast Nebraska during the November 2023 Windstream Outage raises important questions regarding the failure of redundant systems to prevent the outage and the adequacy of notification the carrier provided to PSAPs about the outage. These questions remain notwithstanding the fact that the November 2023 Windstream Outage was of a relatively short duration.

Accordingly, the Commission has determined that the investigation already underway in this docket should be expanded to include, without limitation, the cause or causes of the

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-076/PI-249

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November 2023 Windstream Outage, and the caption of this docket revised accordingly.

O R D E R

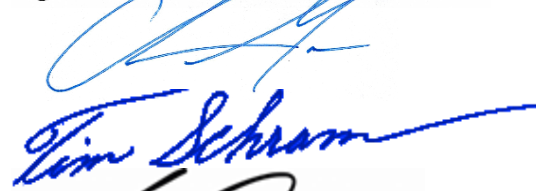
IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that the investigation in this Application No. 911-076/PI-249 be expanded as stated herein, and the caption of this in in this docket be revised as reflected at the top of this Order.

ENTERED AND MADE EFFECTIVE at Lincoln, Nebraska, this 5th day of December, 2023.

NEBRASKA PUBLIC SERVICE COMMISSION

COMMISSIONERS CONCURRING:


Eric M. Hamler


Tim Schram


Kevin Stocker



Chair

ATTEST:


Thomas W. Golden
Executive Director

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska) Application No. 911-076/PI-249
Public Service Commission, on)
its own motion, conducting an)
investigation into 911 service) ORDER CONTINUING HEARING
outages occurring in areas of)
Nebraska served by Windstream)
and its affiliates.) Entered: December 19, 2023

BY THE HEARING OFFICER:

On December 4, 2023, a Hearing Officer Order was entered adopting procedural schedule and setting this matter for hearing on Wednesday, December 20, 2023, at 9:00 a.m. Central Time.

On December 18, 2023, it was made known to the Hearing Officer that a key staff member assigned to this docket would be unavailable to participate in the hearing on the day and time scheduled, due to illness. As a result, it was recommended the hearing be continued to a later date.

After consideration, I find that the hearing scheduled for December 20, 2023 at 9:00 a.m. Central Time shall be continued to Thursday, December 28, 2023 at 9:00 a.m. Central Time. I also find that the final date to exchange witness and exhibit lists shall be extended to Thursday, December 21, 2023.

O R D E R

IT IS THEREFORE ORDERED by the Hearing Officer that the hearing on this matter, scheduled for December 20, 2023 at 9:00 a.m. Central Time, shall be, and is hereby continued to Thursday, December 28, 2023 at 9:00 a.m. Central Time, in the Commission Hearing Room, 1200 N Street, Suite 300, Lincoln, Nebraska.

IT IS FURTHER ORDERED that that the final date to exchange witness and exhibit lists shall be extended to Thursday, December 21, 2023.

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-076/PI-249

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ENTERED AND MADE EFFECTIVE at Lincoln, Nebraska, this 19th day of December, 2023.

NEBRASKA PUBLIC SERVICE COMMISSION

By:



Dan Watermeier
Hearing Officer

**NOTICE OF RESCHEDULED
PUBLIC HEARING**

NEBRASKA PUBLIC SERVICE
COMMISSION 300 The Atrium,
1200 N Street P.O. Box 94927
Lincoln, Nebraska 68509-4927
APPLICATION NO. 911-076
/PI-249:

The Commission, on its own
motion, conducting an investigation
into 911 service Outages occurring
in areas of Nebraska served by
Windstream and its affiliates:

All persons interested in the
above-referenced application are
hereby notified that this matter has
been rescheduled for public hearing
starting at 9:00 a.m. central time on
December 28, 2023, in the Nebras-

ka Public Service Commission
Hearing Room, 300 The Atrium,
1200 "N" Street, Lincoln, Nebraska.

Remote access to the hearing will
be available via WebEx or by
telephone. The Commission WebEx
may be accessed by the following
link: [https://psc.nebraska.gov
/stream](https://psc.nebraska.gov/stream) Those wishing to attend
anonymously may use "anony-
mous" for their name and
"a@b.com" for their email address.

To attend by telephone, dial
408-418-9388, then enter
1462735624 when prompted for an
access code. Visit the PSC Meeting
/Hearing Information page for addi-
tional details

If auxiliary aids or reasonable
accommodations are needed for
attendance at a Commission meet-
ing, please call the Commission at
402-471-3101. For people with
hearing/speech impairments,
please call the Commission at
402-471-0213 (TDD) or the Nebras-
ka Relay System at 800-833-7352
(TDD), or 800-833-0920 (Voice).
Advance notice of at least seven
days is needed when requesting an
interpreter.

1198790 12/22

ZNEZ

EXHIBIT

6

THE DAILY RECORD

JASON HUFF, Publisher
JOSIE CHARRON, Managing Editor

CERTIFICATE OF PUBLICATION

STATE OF NEBRASKA)
) ss
COUNTY OF DOUGLAS)

J. Huff and/or Josie Charron, being first duly sworn, deposes and says that he is Publisher and/or Managing Editor of THE DAILY RECORD, a legal newspaper of general circulation in the State of Nebraska; that the NEBRASKA PUBLIC SERVICE COMMISSION caused the attached Legal Notice to be published in said newspaper on the 22nd day of December, 2023.

Jason W Huff

J. HUFF and/or JOSIE CHARRON

Publisher's Fee \$68.33

Subscribed in my presence and sworn to before me this 22nd day of December, 2023.

STATE OF NEBRASKA
PUBLIC NOTICES
NEBRASKA PUBLIC SERVICE COMMISSION
300 The Atrium, 1200 N St.,
P.O. Box 94927, Lincoln, NE 68509

Nicole M Palmer

NOTARY PUBLIC

GENERAL NOTARY - State of Nebraska
NICOLE M. PALMER
My Comm. Exp. October 1, 2025

The following application(s) may be inspected at the office of the Nebraska Public Service Commission during regular office hours. Interventions must be filed with the Commission in the manner and within the time prescribed in Section 14 of the Rules of Commission Procedure, Title 291, N.C. Chapter 1.

C-5546 In the Matter of the Application of Qwest Corporation dba CenturyLink QC, Denver, Colorado, seeking approval of an Unbundled Network Elements Resale Forbearance Amendment to its Interconnection Agreement with Zayo Group, LLC, Boulder, Colorado.

C-5547 In the Matter of the Application of Qwest Corporation dba CenturyLink QC, Denver, Colorado, seeking approval of an FCC Modernizing Unbundling and Resale Requirements Amendment to its Interconnection Agreement with Zayo Group, LLC, Boulder, Colorado.

C-5548 In the Matter of the Application of Qwest Corporation dba CenturyLink QC, Monroe, Louisiana, seeking approval of an Interconnection Agreement with Airus, Inc., Chicago, Illinois.

C-5549 In the Matter of the Application of Southeast Nebraska Communications, Inc., Falls City, Nebraska, seeking approval of an Interconnection Agreement with Level 3 Communications, LLC, Monroe, Louisiana.

C-5550 In the Matter of the Application of Level 3 Communications, LLC, Monroe, Louisiana, seeking approval of an Interconnection Agreement with Hooper Telephone Company, Remsen, Iowa.

GW-2190 In the Matter of the Application of Manning Grain Co, Burruss, Nebraska, requesting a deductible on its stock insurance higher than \$10,000.

NOTICE OF RESCHEDULED PUBLIC HEARING

APPLICATION NO. 911-079/P2-249:
The Commission, on its own motion, conducting an investigation into 911 service Outages occurring in areas of Nebraska served by Windstream and its affiliates.

All persons interested in the above-referenced application are hereby notified that this matter has been rescheduled for public hearing starting at 9:00 a.m. central time on December 28, 2023, in the Nebraska Public Service Commission Hearing Room, 300 The Atrium, 1200 "N" Street, Lincoln, Nebraska.

Remote access to the hearing will be available via WebEx or by telephone. The Commission WebEx may be accessed by the following link: <https://pscc.nebraska.gov/stream>. Those wishing to attend anonymously may use "anonymous" for their name and "pscc.com" for their email address. To attend by telephone, dial 408-418-9388, then enter 1462735624 when prompted for an access code. Visit the PSCC Meeting/hearing information page for additional details.

If auxiliary aids or reasonable accommodations are needed for attendance at a Commission meeting, please call the Commission at 402-471-3101. For people with hearing/speech impairments, please call the Commission at 402-471-0213 (TDD) or the Nebraska Relay System at 800-833-7352 (TDD), or 800-833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter.

EXHIBIT
6

AFFIDAVIT

State of Florida, County of Orange, ss:

I, Casey Allen, being of lawful age, being duly sworn upon oath, hereby depose and say that I am agent of Column Software, PBC, duly appointed and authorized agent of the Publisher of Omaha World Herald, a legal daily newspaper printed and published in the county of Douglas and State of Nebraska, and of general circulation in the Counties of Douglas, and Sarpy and State of Nebraska, and that the attached printed notice was published in said newspaper on the dates stated below and that said newspaper is a legal newspaper under the statutes of the State of Nebraska.

PUBLICATION DATES:

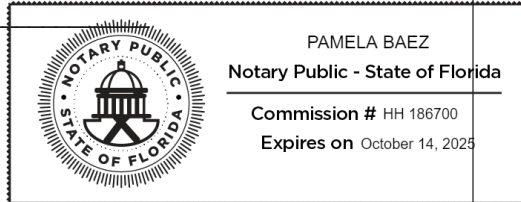
Dec. 22, 2023

NOTICE NAME: rescheduled hearing 911-076 PI-249

PUBLICATION FEE: \$58.20

Casey Allen

(Signed) _____



VERIFICATION

State of Florida
County of Orange

Subscribed in my presence and sworn to before me on this: 12/22/2023



Notary Public

Notarized online using audio-video communication

NEBRASKA PUBLIC SERVICE
COMMISSION
300 The Atrium, 1200 N Street
P.O. Box 94927
Lincoln, Nebraska 68509-4927

NOTICE OF RESCHEDULED PUBLIC HEARING

APPLICATION NO. 911-076/PI-249 :
The Commission, on its own motion, conducting an investigation into 911 service Outages occurring in areas of Nebraska served by Windstream and its affiliates:

All persons interested in the above-referenced application are hereby notified that this matter has been **rescheduled** for public hearing starting at **9:00 a.m. central time on December 28, 2023**, in the Nebraska Public Service Commission Hearing Room, 300 The Atrium, 1200 "N" Street, Lincoln, Nebraska.

Remote access to the hearing will be available via WebEx or by telephone. The Commission WebEx may be accessed by the following link: <https://psc.nebraska.gov/stream> Those wishing to attend anonymously may use "anonymous" for their name and " a@b. com " for their email address. To attend by telephone, dial 408-418-9388, then enter 1462735624 when prompted for an access code. Visit the PSC Meeting/ Hearing information page for additional details.

If auxiliary aids or reasonable accommodations are needed for attendance at a Commission meeting, please call the Commission at 402-471-3101. For people with hearing/ speech impairments, please call the Commission at 402-471-0213 (TDD) or the Nebraska Relay System at 800-833-7352 (TDD), or 800-833-0920 (Voice). Advance notice of at least seven days is needed when requesting an interpreter. 2023, (12) 22 - Fridays, ZNEZ

EXHIBIT
6

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska) Application No. 911-076
Public Service Commission, on) /PI-249
its own motion, conducting an)
investigation into 911 service) PROTECTIVE ORDER
outages occurring in areas of)
Nebraska served by Windstream)
and its affiliates.) Entered: December 27, 2023

BY THE HEARING OFFICER:

The Nebraska Public Service Commission ("Commission") initiated this proceeding on September 12, 2023 to investigate the 911 emergency telecommunications service outage experienced by Windstream customers in southeast Nebraska on Saturday, September 2, 2023 and Sunday, September 3, 2023 ("September 2023 Windstream Outage") On December 5, 2023, the investigation was expanded by Commission Order to include an additional disruption to 911 Service that occurred on November 28, 2023, in the Windstream service area of Nebraska, which appears to have impacted the delivery of 911 calls and non-emergency telephone service to public safety answering points in the Southeast Region of PSAPs, and which was resolved with full service restored in less than an hour.

On November 9, 2023, Commission staff served its First Set of Data Requests ("Data Requests") on to Windstream Nebraska, Inc. ("Windstream"). On December 11, 2023, Windstream filed its response to such Data Requests with the Commission.

Windstream has subsequently made an informal request to provide the Commission with further information in response to the Data Requests. However, Windstream states that such information is of a confidential nature, and has requested the entry of a Protective Order in this docket seeking confidential treatment of such data, information, and/or documentation.

I find that a Protective Order should be entered to cover confidential information and materials provided to the Commission by Windstream during the course of this proceeding. The following Protective Order is hereby entered with respect to all confidential information contained in the above-captioned docket or filed by Windstream in any proceeding in this docket or produced in discovery.

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-075/PI-248

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Protective Order

1. This Protective Order shall govern the use of all confidential information and documents submitted to the Commission by, or on behalf of, Windstream. Notwithstanding any order terminating this proceeding, this Protective Order shall remain in effect until specifically modified or terminated by the Nebraska Public Service Commission or the Hearing Officer.
2. The term "Confidential Materials" shall mean all information and materials and documents designated as such by Windstream in connection with this proceeding and clearly identified by a label, stamp, or prominent watermark indicating same. Confidential Materials shall not include (1) any information or document contained in the files of the Commission, or any other federal or state agency, or any federal or state court, unless the information or document has been determined to be protected by such agency or court, or (2) information that is public knowledge, or which becomes public knowledge, other than through disclosure in violation of this Protective Order.
3. Except as set forth below, Confidential Materials shall be made available under the terms of this Protective Order only to the Commission, Commission staff and counsel and a consultant, an expert, or an employee of a consultant or an expert retained by the Commission for the purpose of advising, preparing for, or testifying in this proceeding. Confidential Materials shall be treated as proprietary and confidential once submitted, and shall not be made available to the public or published on the Commission website.
4. Should Confidential Materials be inadvertently disclosed, any person who identifies the disclosure must immediately notify the Commission of the disclosure and destroy any copies of the Confidential Materials in their possession or control. Any further disclosure or use of Confidential Materials is strictly prohibited and shall constitute a violation of an order of the Commission.
5. All Confidential Materials submitted to the Commission shall be marked as Confidential prior to submission. Parties shall take all reasonable precautions necessary to ensure that

SECRETARY'S RECORD, PUBLIC SERVICE COMMISSION

Application No. 911-075/PI-248

Page 3

Confidential Materials are not distributed to unauthorized persons.

6. The Commission or the Hearing Officer may alter or amend this Protective Order as circumstances warrant at any time during the course of this proceeding.
7. This Protective Order governs only Confidential Materials filed in the course of this proceeding. Materials submitted in other Commission proceedings are not included in the scope of this Protective Order.
8. Any violation of this Protective Order shall constitute a violation of an order of the Commission.

O R D E R

IT IS THEREFORE ORDERED by the Nebraska Public Service Commission that this Protective Order shall be entered in the above-captioned proceeding.

MADE AND ENTERED at Lincoln, Nebraska this 27th day of December, 2023.

NEBRASKA PUBLIC SERVICE COMMISSION

BY:



Commissioner Dan Watermeier
Hearing Officer

OUTAGE NOTIFICATION

Notification Date: 2023-09-02
Notification Time: 19:29:38

Name of Reporting Entity: Windstream
Type of Entity: Wireline Carrier
Date of Incident: 2023-09-02
Local Time Incident Began: 06:30:00
Outage Duration: 12:30:02

Failure Occurred in Another Company's Network: No

Services Affected: Signaling (SS7)

Number of Potentially Affected: 13177

Geographic Area Affected:
State: NEBRASKA
City: Lincoln

Description of Incident:
Voice Lines Impacted : 13104
SS7/Tandem Trunks Impacted

Primary Contact: Regulatory Compliance
Phone Number: 501-850-0977
Email Address: win.ncc.fcc@windstream.com

EXHIBIT

8

OUTAGE NOTIFICATION

Notification Date: 2023-09-02
Notification Time: 19:29:38

Name of Reporting Entity: Windstream
Type of Entity: Wireline Carrier
Date of Incident: 2023-09-02
Local Time Incident Began: 18:04:00
Outage Duration: 17:36:00

Failure Occurred in Another Company's Network: No

Services Affected: Signaling (SS7), Wireline, E911

Number of Potentially Affected: 35661

Geographic Area Affected:
State: NEBRASKA
City: Lincoln

Description of Incident:

Windstream is still investigating this outage and the information provided in this report is to the best of its knowledge at the time of this required filing and notes that details including events and times may change. Windstream will continue to work with Commission Staff as part of the formal investigation.

A power failure at a central office in Lincoln, NE impacted DMS100 services. Water intrusion from an exterior leak into the DC power room caused a short to the ground on the main AC buss, which led to a fire and loss of commercial power. The site promptly went on generator power until the generator experienced a mechanical failure, at which the site promptly rolled over to back-up batteries.

Multiple avenues were pursued to restore power, including bypassing the damaged infrastructure, troubleshooting the failed generator, transporting a back-up 1 MegW portable generator from Des Moines, IA, and implementing power conservation efforts, which included turning down redundant systems. However, attempts to troubleshoot the failed generator were unsuccessful and the voltage of the back-up batteries supporting the Centrex DMS became critically low; at this point the decision was made to gracefully turn it down to prevent hardware damage which would have resulted in a larger and longer outage.

The DMS power down began on 9/2 at 18:04 CT, with the switch fully powering down at 20:10 CT this is when the voice services were impacted including 911 services. Windstream is continuing to investigate the full extent of the 911 outage, including confirmation of which PSAPs experienced outages; additional information will be provided by Windstream once it becomes available in 911-076/PI 249.

As repair efforts continued, the fixed Genset was started, which allowed the DC Plant to begin recharging; commercial power was restored after electricians bypassed damaged buss bars and damaged current limiters; the powered down switch was turned up and services began to restore. The DMS Centrex switch was powered back up on 9/3 at 2:37 CT at which time services would have begun to restore, the switch becoming fully restored by 11:40 CT. A 1 MegW portable generator was wired into the site's ATS to bypass the turbine generator until a permanent backup solution is in place. Windstream continues to work with its vendors to complete all necessary repair work to the damaged AC power infrastructure, including the main buss, current limiters and other hardware requiring replacement.

The total impact: 13,177 retail accounts and 51 wholesale accounts which equates to 35,661 numbers (NRUF).

Primary Contact:
Phone Number:
Email Address:

Regulatory Compliance
501-850-0977
win.ncc.fcc@windstream.com

BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION

In the Matter of the Nebraska Public Service) Application No. 911-076 / PI-249
Commission, on its own motion, conducting an)
investigation into the 911 service outage that)
began on September 2, 2023 in areas of)
Nebraska served by Windstream and its)
affiliates.)

**WINDSTREAM NEBRASKA, INC.’S RESPONSE TO
STAFF’S FIRST SET OF DATA REQUESTS**

Windstream Nebraska, Inc. (“Windstream”) hereby submits its Responses to Staff’s First Set of Data Requests in the above-captioned proceeding.

I. DATA REQUESTS RESPONSES

REQUEST NO. 1: Please provide a detailed narrative description of the September 2, 2023 Outage. In addition to all other information relevant in order to convey to the Commission a full understanding of such Outage, please include:

- a) **The duration of such Outage, from its the beginning until full restoration of all 911-related services impacted by such Outage;**
- b) **A detailed description of the cause(s) of such Outage, including each human failure, equipment failure, software failure, or other occurrence in the chain of events that contributed to such Outage;**
- c) **A detailed timeline of such Outage, including each human failure, equipment failure, software failure, or other occurrence in the chain of events that contributed to such Outage;**
- d) **A list of each public safety answering point (“PSAP”) in Nebraska that was affected by such Outage;**
- e) **A detailed description of each source of redundancy and/or network and geographic diversity in the parts of the Windstream 911 System that was impacted by such Outage and an explanation of why such redundancy and/or diversity failed to prevent the Outage;**
- f) **A detailed description of each single point of failure that contributed in any way to such Outage;**
- g) **A detailed description of the impact, if any, of such Outage on any network operations center (“NOC”) connected to the Windstream network, including the**

operational status of each such NOC during the Outage; and

- h) A detailed description of any complication(s) encountered by Windstream with respect to such Outage that may delayed the recognition of, response to, or resolution of, such Outage.**

WINDSTREAM'S RESPONSE TO REQUEST NO. 1:

At some point during the week prior to the Outage taking place the City of Lincoln's irrigation system was cut by a third-party contractor completing work at Windstream's Central Office ("CO") location (1440 M Street). This water line cut triggered the chain of events that ultimately led to the service interruption. On September 1, 2023, the cut water line led to water intrusion into the transformer room located in the basement of Windstream's CO. The water intrusion caused a fire and small explosion inside the transformer vault which resulted in a short to the ground wire on the main AC bussbar ultimately leading to the loss of commercial power to the site. As designed, the CO automatically switched to generator power starting at 11:13 PM CST, no service interruptions occurred at this time.

The site operated on generator power while contractors worked to restore the commercial power. On September 2, 2023, at 12:23 PM CST the onsite generator experienced a mechanical failure and stopped functioning, at this point the site automatically switched to operate on the onsite back-up batteries, no service interruptions occurred at this time. During this time multiple avenues were pursued to restore power to the site which included attempts to rewire and bypass the damaged electrical segment to restore commercial power while also troubleshooting the failed generator. Additionally, Windstream worked with its third-party facilities management company to source a back-up 1 Megawatt portable generator from a vendor in Des Moines, IA. While this work occurred, the site continued to run on back-up batteries, prolonged operations on the batteries ultimately drained the batteries to critically low levels.

The commercial power remained unrestored, and the back-up generator was enroute, however, the battery levels became critically low. This site has three switches onsite and two selective routers, to limit potential service interruptions, at 6:04 PM CST Windstream made the difficult decision to gracefully turn down the Centrex DMS switch allowing the other two switches to operate, the switch fully shut down at 10:10 PM CST. The Centrex DMS switch supports one of the selective routers, however, at the time the decision was made it was expected that all 911 calls would roll to the second selective router that remained powered. It was this switch shut down that resulted in service interruption.

On September 3, 2023, at 1:40 AM CST, commercial power was restored to the site and the Centrex DMS switch was powered on at 2:37 AM CST. Windstream continued to work to restore switch network elements and cards that required additional troubleshooting. Most of the voice services began to gradually restore throughout the morning hours up to 11:40 AM CST, when all remaining services and switch functionalities were fully restored. Additionally, the back-up generator arrived onsite and was wired in place. This back-up generator remained onsite until all troubleshooting and repairs to the onsite generator were complete as well as the

necessary electrical work to re-wire the location was completed. The total duration of the service interruption was 4 hours and 27 minutes.

The total service and customer impact was 72 Enterprise business customers, 13,177 retail subscriber lines and 51 wholesale accounts. The total lines built (active/inactive) in the impacted switch was 35,661 numbers (NRUF). Customers impacted by this outage would have not been able to make or receive local or long-distance calls during the outage.

The following PSAPs were affected by the Outage, specific impacts are further explained below in Response 6:

- Butler County
- Cass County
- City of Beatrice & Gage County
- City of Lincoln
- Clay County
- Fillmore County
- Jefferson County
- Johnson County
- Nuckolls County 911
- Otoe County
- Saline County
- Saunders County
- Seward County
- Thayer County

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 2: Please provide the following information with respect to the Outage Notification (as defined above):

WINDSTREAM’S RESPONSE TO REQUEST NO. 2:

- a) A description of source of the water intrusion referenced in the Outage Notification;**

The water intrusion was a result of a cut irrigation system, Windstream believes the line was cut by another utility contractor, Black Hills Corporation during work it was completing at Windstream’s CO site.

- b) With respect to the fire referenced in the Outage Notification, a description of the cause of such fire and, if applicable, the date and time that local fire authorities released the building for access by Windstream;**

The fire department released the building for access the same evening the fire occurred, September 1, 2023.

c) **With respect to the generator referenced in the Outage Notification, (i) the make and model of the generator, (ii) a detailed description of the cause of the mechanical failure referenced in the Outage Notification, (iii) the dates of any routine maintenance or service performed on the generator during the three years preceding the September 2, 2023 Outage, and (iv) copies of any maintenance records reflecting such maintenance or service; and the make and model of the generator**

- (i) The onsite generator is an Alturdyne 900kW Solar Saturn 10 Turbine.
- (ii) The cause of the generator’s mechanical failure was determined to be a loose thermocouple in the exhaust plenum which caused the control system to register a high temperature alarm and shut the generator off. Windstream’s maintenance vendor has advised that any routine maintenance would have focused on electrical continuity and electrical output from the thermocouple and not a check to determine if the part itself was loose.
- (iii) Windstream completes quarterly load tests on its generators, with the last run on this generator occurring July 31, 2023. No issues were experienced during that load test or any of the previous quarterly tests (below please find a log of quarterly tests that have occurred over the past 36 months). A Preventative Maintenance Routine was last conducted by Windstream’s vendor on May 29, 2018. This vendor has also conducted a post incident review.

Quarterly Load Tests	Generator Run Hours at time of Quarterly Test
10/26/2023 8:20	546.3
7/31/2023 14:56	516.3
5/1/2023 15:11	514.4
3/1/2023 7:32	513.4
1/31/2023 7:14	512.8
12/1/2022 8:28	511.7
10/25/2022 6:24	510.9
7/28/2022 6:05	508.8
6/29/2022 6:21	508.2
3/31/2022 7:27	506.4
1/25/2022 7:31	505
12/28/2021 8:14	504.3
10/27/2021 7:32	502.6
7/28/2021 7:20	500.1
5/26/2021 7:17	498.9
1/28/2021 7:40	496.5
12/31/2020 7:55	495.9
11/9/2020 12:00	494.7

7/28/2020 3:06	492.9
4/28/2020 2:38	491.1
4/2/2020 2:38	490.5
1/6/2020 23:21	490

(iv) Please see **Confidential Exhibit A**, which contains the last routine maintenance report.

d) Please confirm, as referenced in the Outage Notification, whether or not “all necessary repair work to the damaged AC power infrastructure, including the main buss, current limiters and other hardware requiring replacement” has been completed, and, if not, please provide the anticipated date on which such repairs will be completed.

Lincoln Electric System (“LES”) has completed the repairs on the 480V transformer including replacement of current limiters. Windstream has completed all repairs to its 480V power equipment.

The replacement buss bar connecting the LES and Windstream equipment has not yet been installed. The buss bar has been ordered from Siemens; it must be manufactured then shipped to Windstream’s contractor. Windstream has requested expedited treatment of the order, however, the soonest the buss bar will be available is in 2024. Once received, Windstream’s contractor will install and replace the temporary power cables that are in place. The current solution in place while temporary is providing the appropriate functionality and is installed in a safe manner in compliance with the National Electrical Safety Code. In order to prevent water leaking into the equipment room in the future, Windstream hired a contractor to seal the ceiling.

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 3: For each PSAP listed below, please provide the following with respect to the September 2, 2023 Outage:

- a) A description of the impact(s), if any, that such Outage had with respect to such PSAP (if no impact, respond with “None”);
- b) The date and time at which the impact(s) described above first began with respect to such PSAP and the duration of such impact(s) (if unknown, respond with “Unknown”);
- c) A description of any notification provided by Windstream to such PSAP with regard to the September 2, 2023 Outage, including the means of such notification and the identity of the person to whom such notification was directed; and
- d) With respect to any written notification described above, a copy of (i) each such notification and (ii) any written response(s) received by Windstream to each such notification.

e) List of PSAPs:

WINDSTREAM’S RESPONSE TO REQUEST NO. 3:

- i. Antelope County – None
- ii. Boone County – None
- iii. Boyd-Holt Counties Joint E911 – None
- iv. Brown County – None
- v. Buffalo County – None
- vi. Burt County – None

vii. Butler County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Bellwood, Brainard, Bruno, David City, Dwight, Rising City and Surprise. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream was not able to contact the PSAP prior to the service interruption.
- d. Not Applicable

viii. Cass County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Avoca, Elmwood, Louisville, Murdock, Murray, and Plattsmouth. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Cass County via phone on September 1, 2023, at 6:09 PM CST to advise of the service interruption.
- d. Not Applicable

- ix. Cedar County – None
- x. Chase County – None
- xi. Cherry County – None
- xii. Cheyenne County – None
- xiii. City of Alliance – None

xiv. City of Beatrice and Gage County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Adams, Barneston, Beatrice, Clatonia, Filley, Liberty, Pickrell, and Wymore. Additionally, the PSAP could not receive wireless 911 calls because the PSAP was in the midst of its move from Windstream hosted PSAP equipment to its next generation provider and had not yet established trunking to both selective routers. Had the dual trunking been in place, there would have been no impact to wireline or wireless 911 calls. It is Windstream’s understanding that Verizon Wireless was able to reroute its traffic and successfully completed calls their network calls to the City of Beatrice PSAP.

- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Gage County via phone on September 1, 2023, at 6:14 PM CST to advise of the service interruption.
- d. Not Applicable
- xv.City of Columbus – None
- xvi.City of Falls City – None
- xvii.City of Fremont/Dodge County – None
- xviii.City of Grand Island – None
- xix.City of Hastings and Adams County – None
- xx.City of Holdrege – None
- xxi.City of Lincoln**
 - a. The PSAP could not receive wireline 911 calls from a Centrex only line hosted by the DMS-100 switch. These Centrex lines are predominately used to serve administrative government offices and not residential customers. The PSAP could receive wireline 911 calls from the other 5 Lincoln host switches at all times as well as receiving wireless 911 calls at all times.
 - b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
 - c. Windstream contacted the City of Lincoln PSAP via phone on September 1, 2023, at 5:59 PM CST to advise of the service interruption.
 - d. Not Applicable
- xxii.City of McCook – None
- xxiii.City of Norfolk – None
- xxiv.City of North Platte – None
- xxv.City of South Sioux City – None
- xxvi.City of Wayne – None
- xxvii.Clay County**
 - a. The PSAP could not receive wireline 911 calls from the Windstream exchange of Edgar. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
 - b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
 - c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:12 PM CST to advise of the service interruption.
 - d. Not Applicable
- xxviii.Colfax County – None
- xxix.Cuming County – None
- xxx.Custer County – None
- xxxi.Dawes County – None
- xxxii.Dawson County (includes Richardson County) – None
- xxxiii.Dixon County – None
- xxxiv.Douglas County – None
- xxxv.Dundy County – None

xxxvi.Fillmore County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Geneva, Milligan, Ohiowa, and Shickley. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:13 PM CST to advise of the service interruption.
- d. Not Applicable

xxxvii.Franklin County – None

xxxviii.Frontier County – None

xxxix.Furnas County – None

xl.Garden County – None

xli.Hamilton County – None

xlii.Hitchcock County – None

xliii.Howard County – None

xliv.Jefferson County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Fairbury and Jansen. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:16 PM CST to advise of the service interruption.
- d. Not Applicable

xlv.Johnson County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Burchard, Pawnee City, and Steinauer that are in Pawnee County yet served by the Johnson County PSAP. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:17 PM CST to advise of the service interruption.
- d. Not Applicable

xlvi.Kearney County – None

xlvii.Keith County – None

xlviii.Kimball County – None

xlix.Knox County – None

l.Mid Rivers 911 Center – None

li.Morrill County – None

lii.Nemaha County – None

liii.Nuckolls County 911

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Guide Rock, Nelson, Ruskin, and Superior. The PSAP could receive wireless 911 calls and wireline calls from other carriers.

- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:20 PM CST to advise of the service interruption.
- d. Not Applicable

liv.Otoe County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Burr, Douglas, Dunbar, Nebraska City, Otoe, Palmyra, Syracuse, Talmage, or Unadilla. Additionally, the PSAP could not receive wireless 911 calls because the PSAP was in the midst of its move from Windstream hosted PSAP equipment to its next generation provider and had not yet established trunking to both selective routers. Had the dual trunking been in place, there would have been no impact to wireline or wireless 911 calls. It is Windstream’s understanding that Verizon Wireless was able to reroute its traffic and successfully completed calls their network calls to the Otoe County PSAP.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:28 PM CST to advise of the service interruption.
- d. Not Applicable

lv.Perkins County – None

lvi.Pierce County – None

lvii.Region 26 Council – None

lviii.Rock County – None

lix.Saline County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchange of Tobias. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:32 PM CST to advise of the service interruption.
- d. Not Applicable

lx.Sarpy County – None

lxi.Saunders County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Cedar Bluffs, Colon, Ithaca, Mead, Wahoo, and Yutan. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream was not able to contact prior to the service interruption.
- d. Not Applicable

lxii.Scotts Bluff County – None

Ixiii.Seward County

- a. The PSAP could not receive wireline 911 calls from the Windstream exchanges of Beaver Crossing, Cordova, Garland, Milford, and Seward. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:33 PM CST to advise of the service interruption.
- d. Not Applicable

Ixiv.Sheridan County – None

Ixv.Thayer County

- a. The PSAP could not receive landline 911 calls from the Windstream exchanges of Alexandria, Bruning, Davenport, and Hebron. The PSAP could receive wireless 911 calls and wireline calls from other carriers.
- b. Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.
- c. Windstream contacted Clay County PSAP via phone on September 1, 2023, at 6:34 PM CST to advise of the service interruption.
- d. Not Applicable

Ixvi.Thurston County – None

Ixvii.Washington County – None

Ixviii.York County – None

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 4: With respect to each PSAP listed in Request No. 2(e) above, please identify and provide contact information for each official, if any, who has been designated by such PSAP to Windstream as the contact person(s) for communications Outages at such PSAP (if no such official has been designated by a given PSAP, respond with “None”).

WINDSTREAM’S RESPONSE TO REQUEST NO. 4:

Please see **Exhibit B.**

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 5: Please identify each official of the State of Nebraska, including but not limited to any representatives of state government or any state agency, but excluding representatives of local government entities such as county and municipal governing bodies and agencies, that any employee or officer of Windstream communicated with regarding the September 2, 2023 Outage between the dates of September 2, 2023 and September 10, 2023, inclusive. With respect to any written communication described above, please provide a copy of (i) each such communication and (ii) any written response(s) sent or received by Windstream with respect to each such communication.

WINDSTREAM’S RESPONSE TO REQUEST NO. 5:

Please see **Exhibit C.**

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 6: Please provide the following information with respect to each Windstream selective router that serves a PSAP in the State of Nebraska:

- a) A description of the impact, if any, that the September 2, 2023 Outage had with respect to each such selective router (if no impact, respond with “None”);
- b) The date and time at which the impact(s) described above first began with respect to such selective router and the duration of such impact(s) (if unknown, respond with “Unknown”);

WINDSTREAM’S RESPONSE TO REQUEST NO. 6:

As previously noted, Windstream has two selective routers onsite. These routers were originally designed to be redundant of each other with trunks into all PSAPs, all Windstream host switches, all connecting companies, all CLECs, and all wireless carriers to both Selective Routers. As outlined in two instances in Response 3, this configuration has changed slightly as the State moves to Next-Gen 911. To avoid conversion delays, some PSAPs have converted over to the ESINet system without having trunking into both selective routers. In those instances, Windstream personnel did advise all parties involved of the risk of moving forward without the dual trunking in place. The two PSAPs impacted by this have since added the second trunk.

Selective Router #1 is part of the DMS-100 host switch located at the CO. This selective router was directly impacted by the switch power down. During the Outage, 911 calls from wirelines could not be routed to the Gage County (aka Beatrice) PSAP and the Otoe County PSAP as these PSAPs were impacted by the dual trunking issue noted above.

Duration: From September 2, 2023 10:10 PM CST to September 3, 2023, 2:37 AM CST a total of 4 hours and 27 minutes.

Selective Router #2 is part of the DMS-100/200 host switch located at Windstream’s CO. This selective router was not impacted by the Outage and services remained active.

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 7: Please provide the following information with respect to [Points of Interconnection to the ESINet]:

a) A description of the impact, if any, that the September 2, 2023 Outage had with respect to the NGCS (if no impact, respond with “None”);

b) The date and time at which the impact(s) described above first began with respect to the NGCS and the duration of such impact(s) (if unknown, respond with “Unknown”);

WINDSTREAM’S RESPONSE TO REQUEST NO. 7:

a) **A description of the impact, if any, that the September 2, 2023 Outage had with respect to the NGCS (if no impact, respond with “None”);**

See the Response to Request No. 6.

b) **The date and time at which the impact(s) described above first began with respect to the NGCS and the duration of such impact(s) (if unknown, respond with “Unknown”);**

See the Response to Request No. 6.

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 8: To the extent that any act or failure to act on the part any third party that is not a Windstream affiliate caused, contributed to, or exacerbated the September 2, 2023 Outage, please provide the following information:

a) The identity of each such third party;

b) Contact information for each such third party;

c) A description of the act(s) or failure(s) to act of such third party that caused, contributed to, or exacerbated such Outage; and

d) If applicable, a description of any action taken by Windstream to seek compensation or other redress for result of such act(s) or failure(s) to act.

WINDSTREAM’S RESPONSE TO REQUEST NO. 8:

a) **The identity of each such third party;**

Black Hills Corporation

b) **Contact information for each such third party;**

Black Hills Corporation 625 9th Street, Rapid City, SD 57701

c) A description of the act(s) or failure(s) to act of such third party that caused, contributed to, or exacerbated such Outage; and

As previously outlined the chain of events that ultimately led to the outage was as a result of an irrigation line cut.

d) If applicable, a description of any action taken by Windstream to seek compensation or other redress for result of such act(s) or failure(s) to act.

To date, no action has been taken, however Windstream is continuing to review its claims options.

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 9: To the extent not provided in response to any other request set forth herein, please provide the following information with respect to any cable cut or other type of damage to any cable that contributed to the September 2, 2023 Outage:

- a) The location(s) at which any such cable was cut or otherwise damaged, including the number of cuts or other damage to such cable;
- b) A description of the type of cable that was cut (e.g., fiber, copper, etc.), including, if available, the [maximum bandwidth capacity] of such cable, the [average daily bandwidth usage of such cable, a description of the types of [services/traffic] on such cable, and the ratio of such overall usage [devoted to/reserved for] purposes of 911 service compared to the percentage of such bandwidth that is [utilized for purposes/devoted to uses] other than 911 services;
- c) The identity of the owner of such cable;
- d) The cause of the cable cut or other damage to such cable;
- e) A description of the manner in which the cable was cut or otherwise damaged, including a description of the extent of such cut or damage and a description of the role such cut or damage played in causing or exacerbating the Outage;
- f) Whether a locate was requested prior to the commencement of work at or near the location where such cable was cut or otherwise damaged;
- g) If a locate was requested as described above, whether such locate was provided prior to the commencement of work;
- h) If a locate was provided as described above prior to the commencement of work, whether such locate was accurate;

- i) The date and time at which Windstream became aware that such cable was cut or otherwise damaged;
- j) The date and time at which Windstream determined or was notified that such cable was cut or otherwise damaged and the means by which Windstream made such determination or received such notification (and from whom);
- k) The date and time at which Windstream identified the precise location(s) of the cut(s) or other damage to such cable;
- l) The date and time that repairs to such cable were commenced and by whom, including a description of any factors or circumstances that may have delay the commencement of such repairs;
- m) The date and time that repairs to such cable were completed and a description of such repairs, including a description of the process by which such repairs were effectuated; and
- n) The date and time that service on such cable was restored;

WINDSTREAM’S RESPONSE TO REQUEST NO. 9:

Not applicable, Windstream did not experience a cable cut or cable damage related to the Outage.

Responsible Party: Brad Hedrick, President – State Operations

REQUEST NO. 10: Please identify the extent, if any, to which the impact of the September 2, 2023 Outage was caused or exacerbated by the operation of the NG911 System (as defined above) (if no impact, respond with “None” and include an explanation supporting this response).

WINDSTREAM’S RESPONSE TO REQUEST NO. 10:

See the Response to Request No. 6.

Responsible Party: Brad Hedrick, President – State Operations

Respectfully submitted on this the 11th day of December, 2023.

- Signatures On Following Page -

WINDSTREAM NEBRASKA, INC.

By: /s/ Nicole Winters
Nicole Winters
Senior Counsel
Windstream Nebraska, Inc.
4005 North Rodney Parham Road
Little Rock, AR 72212
Nicole.Winters@windstream.com

and

Mary E. Vaggalis, #25776
Bruning Law Group
1201 Lincoln Mall, Ste. 100
Lincoln, NE 68508
mary@bruninglawgroup.com

CONFIDENTIAL
EXHIBIT A

Withheld Pursuant to Protective Order

EXHIBIT

B

Redacted

EXHIBIT

C

In addition to the PSAP contacts addressed in Response 6, Windstream had contact as follows with the various Nebraska officials:

Windstream's Vice President of Government Affairs, David Avery undertook the following communications during the Outage:

Saturday, Sept. 2

8:33 PM – Spoke with James Almond with the Nebraska PSC.

8:42 PM – Spoke with Dave Sankey with the Nebraska PSC.

8:59 PM – Text message to Dave Sankey

Commercial power was restored at 8:51pm. Checking all breakers, safety, switches, etc.

9:11 PM – Call with Dave Sankey NE PSC

Time unknown - Text message to Dave Sankey

We continue to work through the process. I will get another update at 11pm.

11:10pm – Call with Dave Sankey

Sunday, Sept. 3

2:28 AM – Text message to Dave Sankey NE PSC

2:30am update: Commercial power restored and stable. We are beginning processes to restore services impacted.

6:16 AM – Text message to Dave Sankey NE PSC

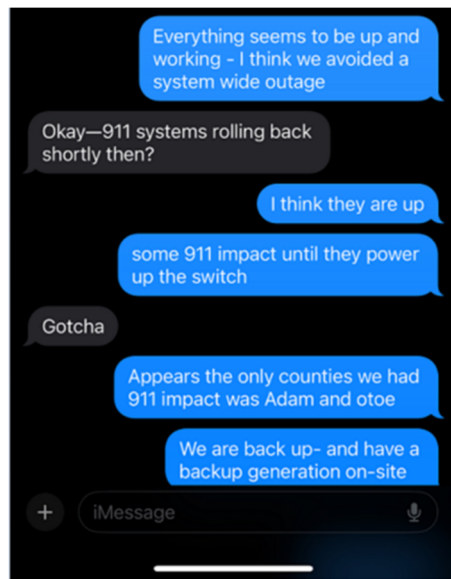
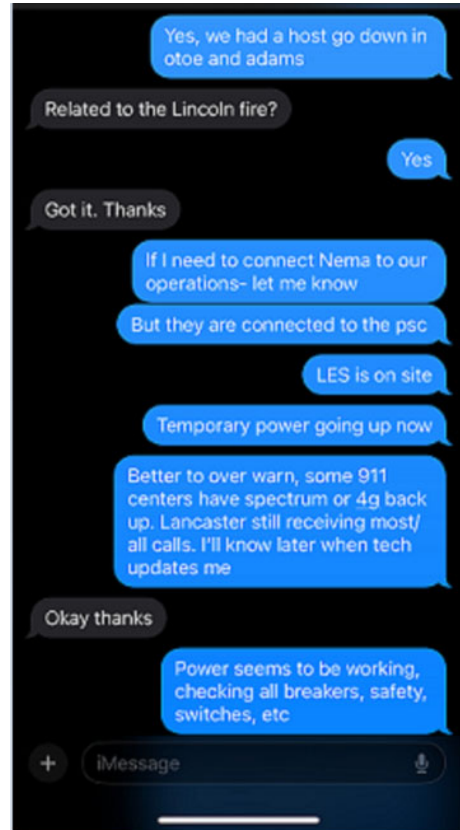
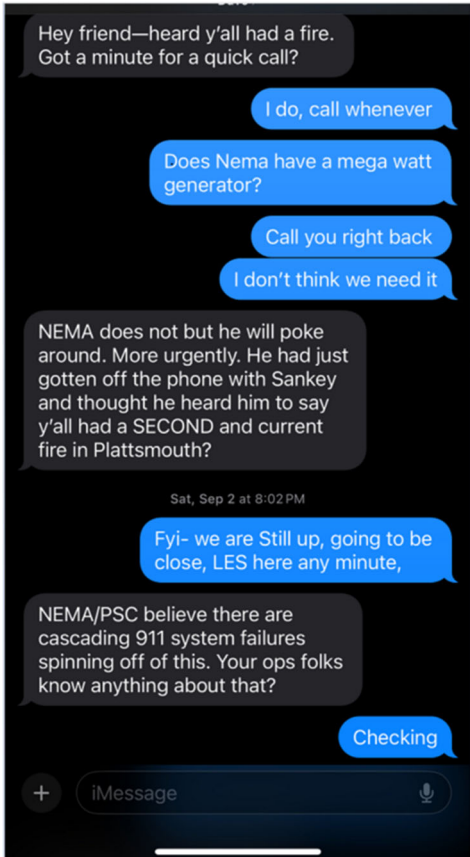
Our Comms team just issued a tweet. Power remains stable and services continue to restore. 911 remains disrupted in certain parts of SE Nebraska. I will update you again mid-morning.

9:40 AM – Text message to Dave Sankey NE PSC

We are verifying 911 restoral. I will call you as soon as we do.

10:01 AM Call with Dave Sankey

Windstream's Vice President – Regulatory & Government Affairs Trent Fellers spoke with Dave Lopez, Chief of Staff for Governor Pillen. Mr. Fellers provided updates to Mr. Lopez as follows during the evening of Saturday, Sept. 2nd and into Sunday, Sept. 3rd:



CONFIDENTIAL
EXHIBIT 11

Withheld Pursuant to Protective Order

Windstream Outage

David Sankey Testimony

September 2, 2023

Good morning Commissioners! For the record, my name is D-A-V-I-D S-A-N-K-E-Y and I am the State 911 Director at the Public Service Commission. The purpose for my testimony today is to discuss two recent 911 disruption events that occurred on the Windstream Telecommunications network.

On September 2, 2023 at approximately 1840, I was contacted by James Almond, Nebraska Public Service Commission (PSC) 911 Field Coordinator. He informed me that the 911 center in Cass County had received a phone call from an individual that stated he was representing Windstream Telecommunications Company. The caller informed the 911 center that they were going to start shutting down their services and 911 would be impacted. Field Coordinator Almond was working to confirm this information.

Shortly thereafter, I received a call from Troy Harris at the Nebraska Emergency Management Agency (NEMA) notifying me that he was starting to hear from Emergency Managers that 911 services in the Southeast Region was being disrupted.

James Almond from the PSC began calling Public Safety Answering Points (PSAP) representatives to assess the impact of the outage. Troy Harris and the NEMA Watch Center began contacting local emergency managers to assess the impact in their areas.

Initial reports were that Windstream experienced a power failure with their data center in downtown Lincoln and the data center issue was impacting the PSAPs in the Southeast Region that were connected to the Windstream Selective Router and the Windstream network. I began contacting Windstream officials to determine the cause and scope of the outage they were experiencing. I also began contacting PSC Commissioners and other officials to notify them of the circumstances and began making arrangements to assist the Southeast Region with notifying the public of the 911 service disruptions.

At approximately 2030, I was able to contact Windstream representative, David Avery. Mr. Avery informed me there was water that had entered an electrical room at the Windstream facility at 1440 M street in Lincoln. According to Mr. Avery, the water caused a fire and loss of commercial power to the facility sometime in the evening on September 1st. He informed me that the facility was operating on a backup generator until mid-day on September 2nd when the generator failed, and the facility began operating on backup batteries. He also informed me that Windstream was trying to get a replacement generator in place to restore power. Windstream relayed that they were hopeful that this could be accomplished soon.

From my over 35 years in Public Safety, I have learned that the initial reports during an emergency are often incorrect. For example, Mr. Avery notified me at 2059 that “Commercial power was restored at 2051.” This, we soon discovered, was not the case and Windstream continued to work on the power issue.

Field Coordinator Almond reported that approximately 17 of 20 PSAPs were disrupted either with service to their 911 lines or their administrative lines, or both. This was largely supported by NEMA's information.

Mr. Avery continued to provide updates to me throughout the night. At approximately, 0230 on September 3rd, I received a text from Mr. Avery stating that commercial power had been restored and that services were beginning to power up across the Windstream network. Updates of service restoration continued through the morning. At approximately 1000 on September 3rd, Mr. Avery communicated that 911 services were mostly restored across the Southeast Region. I want to acknowledge my appreciation for Mr. Avery's efforts to communicate and share information throughout the event.

On September 12, 2023, the Public Service Commission voted to open a formal investigation into the Windstream Network disruption that occurred on September 2 and 3, 2023.

On November 28, 2023, at approximately 1400, Sankey was contacted by Field Coordinator James Almond that PSAPs in the

Southeast Region were beginning to experience service disruptions. A few minutes later, I was also contacted by Troy Harris with the NEMA watch center that they were also beginning to receive reports of service disruptions to PSAPs across the Southeast Region. This disruption lasted for about an hour.

Even though PSC rules require a formal report of 911 service disruption to be submitted within 14 days of the disruption, Windstream did not submit a report for this event until December 26th. The report summarized that the reason for this outage was a “manufacturer bug” that prevented switches from recovering automatically. It also indicated that the alarms were “inexplicably suppressed”.

On December 5, 2023, the Public Service Commission voted to add this service disruption to the active investigation involving Windstream that was opened on September 12th.

We look forward to learning more about these 911 service disruptions today.

Thank you!

Nebraska Public Service Commission Case No.: 911-076 PI-249

Brad Hedrick Opening Remarks

December 28, 2023, Hearing

Windstream Overview

Windstream is a privately held communications and software company headquartered in Little Rock, Ark. Windstream is a leading provider of advanced network communications and technology solutions for consumers, small businesses, enterprise organizations and carrier partners across the U.S.

Windstream provides voice, broadband, entertainment, and security solutions that enhance the communication capabilities of consumers and businesses in Nebraska. Through predecessor companies, Windstream has provided telecommunications services within the State of Nebraska for almost 120 years. Windstream serves over 65,000 consumer and business lines in Nebraska.

Witness Introduction

I am Brad Hedrick, Regional President of Operations for Nebraska, Arkansas, Iowa, Minnesota, and Missouri. I am based here in Lincoln.

I joined Windstream in 1979 and have held various engineering and operational positions since that time. I became the Regional President of Operations covering Nebraska in 2004.

In my current role, I am responsible for the installation, repair, and maintenance of services to residential, small, medium, and large businesses within the states in my territory. I am also responsible for government affairs and local community relationships within these states.

Based on my extensive history with Windstream and the scope of my duties, I am here today to provide additional details on two recent network incidents that resulted in impacts to 911 service. I would like to first state that Windstream takes its obligations as an incumbent provider very seriously and understands how even minor interruptions to 911 service can have potentially harmful consequences. As such, Windstream strives to ensure it has multiple layers of redundancy and diversity throughout its network.

I will first provide an overview of the outage that occurred in early September along with an update on actions we have taken since that event. I will then provide an overview of the outage that occurred on November 28th along with our planned next steps.

September 2nd – 3rd Outage Details

During the week of August 28th, the City of Lincoln's landscape sprinkler system along Centennial Mall was cut by a third-party contractor completing work at Windstream's Central Office at 1440 M St. As a result of this line cut, water leaked into Windstream's transformer room located in the Office basement. This caused a fire and small explosion which resulted in a short to the ground wire on the main AC bussbar, ultimately leading to the loss of commercial power. As designed, the site automatically switched to the onsite megawatt generator without any service interruption. This occurred at approximately 11:13 PM local time on Friday, September 1st.

While contractors worked to restore commercial power, the site ran on generator power for approximately 13 hours. Around noon on Saturday, September 2nd, the

generator experienced a mechanical failure and stopped functioning. The site automatically switched over to its onsite back-up battery power, and again no service interruptions occurred at this time. While the site ran on batteries, contractors continued efforts to rewire the site to return commercial power, while Windstream technicians worked on the generator. In addition, Windstream engaged its third-party facilities management company to source a portable megawatt generator to bring on site. The site ran on batteries for 6 hours. After that time, the batteries began to reach critically low levels requiring Windstream to take certain actions.

The Lincoln Central Office is unique for a couple reasons. It has one of the largest generators in Windstream's network as well as 3 communications switches hosting 2 911 selective routers. As the batteries reached critically low levels, Windstream's Operations and Engineering team made the difficult decision to shut down one of the switches in an attempt to preserve power for the other two switches. Also, by proactively shutting down a switch, Windstream was able avoid an equipment crash, which would have resulted in nearly catastrophic failures for the switch and greatly extended the outage duration. Windstream made this decision around 6:00 p.m. Saturday evening, and it proactively notified PSAPs, the Commission, and the Governor's office, as it was unsure how extensive the impact might be. However, Windstream believed any 911 impacts would be minimal because all 911 calls should have rolled to the second 911 selective router on site. The switch shut down began around 6:00 p.m. and fully shut down around 10:00 p.m. that same evening.

Commercial power was restored at 1:40 a.m. on Sunday, September 3rd, and the powered-down switch was re-started approximately one hour later and

communications services began to restore. The service interruption lasted 4 hours and 27 minutes. During this time, customers served by this switch would not have been able to make or receive local, long-distance or 911 calls. However, only 2 PSAPs were impacted, meaning they were not able to receive wireline or wireless 911 calls. The 2 PSAPs were impacted because they had already converted to the ESINet network, which was only connected at that time to one of Windstream's selective routers. All the other PSAPS had trunks into both Windstream selective routers and their calls rolled over as designed.

The generator mechanical failure was due to a loose thermocouple wire that caused the control system to register an elevated temperature, triggering the generator's self-shutoff.

Remediation Efforts

While the events related to this outage were certainly unique, Windstream always completes thorough reviews of such incidents and makes network, policy, and procedure changes as a result of the lessons learned. This service interruption was no different. We identified three issues and have taken steps to address them.

First, the closest megawatt generator available to Windstream's facilities management vendor at the time was located in Des Moines, Iowa. Windstream's facilities management vendor at Windstream's direction has since established a contract with NMC Cat located here in Lincoln. Should a back-up megawatt generator be required in the future, we now have one just down the road.

Second, Windstream is replacing the existing automatic transfer switch that controls whether commercial power or the generator is the primary AC power

source. The automatic transfer switch provides multiple connections so that commercial power, the stationary generator, or a portable generator can function as the primary AC power source.

Lastly, the ESINet provider now has trunking into both of the selective routers providing redundancy for all PSAPs.

November 28th Outage Details

On Tuesday, November 28th, around 1:00 pm local time, Windstream's IP Core Network experienced a brief network instability event which created something akin to a ripple effect across points in Windstream's backhaul network. This event caused two switches in the Lincoln Central Office to become isolated, requiring a restart. While the backhaul network equipment automatically recovered, the two switches located in Lincoln did not. As a result, all traffic, including 911 calls, began to fail.

Windstream started to receive customer trouble reports, along with reports from at least 3 PSAPs. At this time, it began an investigation as there were no network alarms to coincide with the impact. During troubleshooting, the Metaswitch SS7 links were restarted which ultimately resolved the issue. The outage lasted 1 hour and 10 minutes and impacted 911 services for the Windstream Southeast Nebraska network.

Windstream has determined that the failure was a result of a manufacturer "bug" that prevented the Metaswitch from recovering automatically. Additionally, the network alarms that Windstream's operations center would normally rely upon

were found to have been suppressed and did not alert our technicians to the service interruption.

I understand the Commission has concerns about the reporting related to this event. To ensure prompt outage reporting, Windstream's network operations center relies heavily on its network alarms, not only to be alerted of an issue but, to also understand the service impact. Because the network alarms were suppressed, the information Windstream relies on for its reporting was not immediately available. That meant Windstream was not fully aware of the extent of the outage until the problem was resolved, and even then, it took several weeks to determine the root cause and the full impact which caused an isolated delay in outage reporting.

Remediation Efforts

Just as with the September event, Windstream completed a review of the events that caused the November outage and is taking the following actions:

First, alarming on all of these devices has been restored to be critical alarm status. This ensures timely reports should an outage event occur in the future.

Second, during the deep dive review, it was discovered that the IP backhaul network feeding the Lincoln switches needs a design update. While the network was intended to be redundant and diverse, Windstream discovered a single point of failure. Thus, Windstream is undertaking a project to update the network route, making it diverse. This diverse route will enable traffic to follow an alternate path should a network device become isolated in the future. Due to the number of network devices that must be modified, Windstream expects this network redesign to be completed in early April 2024.

Lastly, to address the manufacturer “bug,” Windstream is investigating options to replace the existing equipment.

I realize this is a lot of information and a lengthy statement. I appreciate you giving me the opportunity to explain the causes of the outages and the actions taken to restore services. I’m happy to address any questions you may have.

Effken, Matt

From: Sankey, Dave
Sent: Tuesday, December 26, 2023 1:11 PM
To: Effken, Matt
Subject: FW: WINDSTREAM - PUC Filing - 2023-11-28
Attachments: Windstream - Lincoln Nov 28th Outage Report.pdf

From: WCI Outage Reporting <WCI.Outage.Reporting@windstream.com>
Sent: Tuesday, December 26, 2023 12:53 PM
To: Elton, Cheryl <cheryl.elton@nebraska.gov>; PSC 911 Outages <psc.911outages@nebraska.gov>
Cc: Barnett, Scott W <Scott.Barnett@windstream.com>; WIN NCC FCC <WIN.NCC.FCC@windstream.com>; Hedrick, Brad S <Brad.Hedrick@windstream.com>
Subject: WINDSTREAM - PUC Filing - 2023-11-28

Some people who received this message don't often get email from wci.outage.reporting@windstream.com. [Learn why this is important](#)

Attached, please find the full and final report regarding the Windstream outage that occurred on November 28, 2023.

Nicole Winters

Senior Counsel

501.748.6313 office

Nicole.Winters@windstream.com

4005 N. Rodney Parham Road, Little Rock, AR 72212



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Sensitivity: Internal

On November 28, 2023, at approximately 1:00 PM CST, Windstream experienced an outage that lasted 1 hour and 10 minutes, ending at approximately 2:10 PM CST, impacting the Lincoln, NE market. The outage impacted 72 Consumer voice customers and area PSAPs.

Outage Details

Windstream's IP Core Network experienced brief network instability incident which resulted in a ripple effect impacting a number of backhaul links. This network event caused the isolation of the Metaswitch in Lincoln, NE. While the backhaul links recovered without any intervention, the switches located in Lincoln did not automatically recover. As a result, all traffic including 911 calls began to fail.

Windstream started to receive customer trouble reports, along with reports from at least 3 PSAPs. At this time, it commenced an investigation as there were no network alarms to coincide with the impact. As part of routine troubleshooting, the links to the impacted switches were restarted bringing services back online. This troubleshooting was completed remotely and did not require an onsite visit.

Reason for Outage

It has been determined that the failure was a result of a manufacturer "bug" that did not allow the switches to auto-recover and the alarms Windstream's operations center would normally rely upon were inexplicably suppressed.

Reason for Delayed Reporting

To ensure prompt outage reporting, Windstream's network operations center relies heavily on its network alarms not only to be alerted of an issue but, to also understand the service impact. Because the network alarms were suppressed, the information Windstream relies on for its reporting was unknown. Unfortunately, this was an instance where the PSAPs were aware of the impact before Windstream and thus no report was filed with the PSC.

Remediation Steps

1. Alarming on these devices have been restored, this ensures timely reports should an outage event occur in the future. Additionally, the alarms allow the operations team to react quickly and remotely address the issue which results in very short nearly imperceptible down time.
2. During Windstream's Root Cause Analysis review, it was discovered that the IP backhaul network feeding the Lincoln switches has a design vulnerability. Thus, Windstream is undertaking a multi-step process to add a diverse network route allowing the traffic to have an additional route to travel should there be network instability in the future. Due to the number of network devices that must be touched, Windstream expects this network redesign to be completed in early April 2024.
3. To address the manufacturer "bug" Windstream is investigating alternative equipment options to replace the existing equipment.