

**IOWA UTILITIES BOARD**

**TO:** Amy Christensen  
**FROM:** Tara Ganpat-Puffett, Larry Stevens, and Mary Whitman  
**DATE:** June 30, 2015 (confidentiality designations updated August 3, 2016)  
**SUBJECT:** Summary of Call Termination Reports - Windstream FCU-2013-0007

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## **I. Complaint (Tara)**

On March 1, 2013, Carolyn Frahm, filed an informal complaint with the Iowa Utilities Board (Board), alleging repeated difficulties completing calls from her home in Mount Pleasant, Iowa, to a friend in Mediapolis, Iowa. On one occasion, she was unable to complete a call to the friend's number for four days. According to the complaint, Ms. Frahm had experienced the problem since August 2012, both with her previous telephone provider, MCC Telephony of Iowa LLC (Mediacom), and with her current local and long-distance provider, Windstream of the Midwest, Inc. (Windstream). Board staff commenced an investigation, forwarding the complaint to Windstream. Subsequently, on April 1, 2013, the complaint was sent to Mediapolis Telephone Company (MTC), (identified as the terminating provider), and MCI Communications Services, Inc. (Verizon), (identified as the underlying long-distance network provider).

On March 23, 2013, Windstream responded to the complaint stating that when Ms. Frahm first reported the problem on February 27, 2013, it tested the line and the test

call completed successfully and Ms. Frahm was asked to make a test call, which also was successful. Windstream explained that when Ms. Frahm contacted the repair department again on March 7, 2013, to report continuing problems, Windstream created a trouble ticket and enlisted Verizon's help to ensure there were no routing problems. Verizon was identified as the underlying carrier for Ms. Frahm's out-of-territory (OOT)<sup>1</sup> account.

In correspondence dated March 25, 2013, Ms. Frahm reported she had advised a Windstream employee that she knew they could change the routing and told them to do so. According to Ms. Frahm, the Windstream employee said she would talk with her supervisor. The problem ceased. Ms. Frahm reported she had not had any further call completion issues since March 7, 2013.

MTC responded to the complaint on April 9, 2013. MTC explained that as a reseller of long-distance service, it can make routing changes for its customers which, in most cases, corrects the problem. MTC noted that since it was able to complete a call to the Mediapolis number locally, the problem was more than likely occurring on the originating end of the call.

In a response dated April 24, 2013, Verizon stated it provides an underlying long-distance network for Windstream and that it appears that Windstream uses more than one wholesaler to provide long-distance service to its customers. Verizon stated that on February 8, 2013, it received an electronic order from Windstream to add Ms. Frahm's telephone number to the Verizon reseller account. Verizon also stated that it received another order from Windstream duplicating this action on March 3, 2013, suggesting there may have been an issue with the original switch to Verizon's network. Verizon further stated that according to Windstream's response to the complaint, the customer has not experienced the same problems since Windstream made the routing change for Ms. Frahm's telephone number to Verizon's wholesale network.

Board staff issued a proposed resolution on April 26, 2013, recounting that Ms. Frahm reported to Windstream on three occasions when her calls to the Mediapolis number were not completing. Staff also reviewed Windstream's accounts of its testing of Ms. Frahm's telephone line for each of the repair tickets and noted that the test calls to the number in question completed each time. Staff also reviewed the responses of MTC and Verizon and noted that, according to Ms. Frahm's comments dated March 25, 2013, her service was working properly.

On May 9, 2013, the Office of Consumer Advocate (OCA), a division of the Iowa Department of Justice, requested that the Board docket a rural call completion complaint (C-2013-0025) for formal investigation.

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<sup>1</sup> Customer was routed through a Windstream long-distance network and was changed to an Out of Territory (OOT) network, which is not a Windstream network. This change was made to Verizon's network.

On July 15, 2013, the Board granted the OCA's request for formal proceeding and assigned the matter to its administrative law judge for review.

## **II. Federal Communications Commission (FCC) Efforts to Address Rural Call Completion Problems (Mary)**

As background, staff includes the following summary of the Federal Communications Commission's (FCC) proceedings addressing rural call completion problems. To date, the FCC has engaged in several enforcement proceedings against individual carriers and has adopted rules requiring data collection and reporting. The federal effort has included the following measures:

### **A. FCC Rural Call Completion Task Force, Declaratory Ruling**

In 2011, the FCC created a Rural Call Completion Task Force (Task Force) to investigate and address the problem of calls to rural telephone customers which are delayed or fail to connect. The Task Force held a workshop on this issue in October 2011, and in February 2012, the FCC issued a Declaratory Ruling responding to the issues.<sup>2</sup>

In the Declaratory Ruling, the FCC

- clarified that the prohibition against blocking, choking, reducing, or restricting telephone traffic extends to routing practices that have the effect of blocking, choking, etc.;
- clarified that such practices may constitute unjust and unreasonable practices in violation of section 201 of the Communications Act of 1934, as amended (the Act), and/or may violate a carrier's duty to refrain from unjust or unreasonable discrimination in practices, facilities, or services; and
- emphasized that carriers are responsible for the actions of their agents or other persons acting for or employed by the carriers, i.e., underlying providers.

The FCC explained that it could take appropriate enforcement action pursuant to its statutory authority, including cease-and-desist orders, forfeitures, and license revocations against carriers engaging in the prohibited activities discussed in the Declaratory Ruling.

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<sup>2</sup> *In the Matter of Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135 (rel. Feb. 6, 2012); (*Declaratory Ruling*), 27 FCC Rcd. 1351.

## B. FCC Rules

On February 7, 2013, the FCC released a Notice of Proposed Rulemaking seeking comment on rules to help address problems in completion of long-distance calls to rural customers.<sup>3</sup>

The FCC mentioned evidence that retail long-distance providers may not be adequately examining the rural call completion performance that results from use of wholesale call delivery services by intermediate providers employed by the long-distance providers. The FCC explained it intended to "consider measures to improve the Commission's ability to monitor the delivery of long-distance calls to rural areas and aid enforcement action." (*Call Completion NPRM*, ¶ 3.)

Noting that a lack of data impedes investigations (*Call Completion NPRM*, ¶ 17), the FCC sought comment on reporting and data retention requirements that would give the Commission information about a long-distance provider's performance to certain areas. The FCC proposed to adopt rules that would require originating long-distance voice service providers to collect and retain basic information on call attempts and to periodically analyze and summarize call completion and report the results to the Commission. (*Call Completion NPRM*, ¶ 17.)

In the *Call Completion NPRM*, the FCC reviewed the steps it had taken so far in response to the call completion problem. The FCC stated it was conducting ongoing investigations of several long-distance providers and addressing daily operational problems reported by rural customers. (*Call Completion NPRM*, ¶ 11.) The FCC described its Web-based complaint intake process which allows rural customers and carriers to alert the Commission about call completion problems and instructs them on how to file complaints.

On October 28, 2013, in the *Rural Call Completion Order*,<sup>4</sup> the FCC adopted rules addressing concerns about completion of long-distance calls to rural areas. The FCC noted that the record in its proceeding leaves no doubt that completion rates for long-distance calls to rural areas are frequently poor—whether the call is delayed, the called party's phone never rings, the caller hears false busy signals, or there are other problems. These failures have significant and immediate public interest ramifications, causing rural businesses to lose customers, cutting families off from their relatives in rural areas, and creating potential for dangerous delays in public safety communications in rural areas.

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<sup>3</sup> *In Re: Rural Call Completion*, Notice of Proposed Rulemaking, WC Docket No. 13-39, 28 FCC Rcd. 1569 (rel. Feb. 7, 2013) (*Call Completion NPRM*).

<sup>4</sup> *In Re: Rural Call Completion*, WC Docket No. 13-39, Report and Order and Further Notice of Proposed Rulemaking, FCC 13-135 (rel. Nov. 8, 2013) (*Rural Call Completion Order*).

The FCC adopted definitions, recordkeeping (call answer and completion data),<sup>5</sup> data retention, and reporting rules at 47 C.F.R. Part 64 intended to improve the FCC's ability to monitor the delivery of long-distance calls to rural areas, aiding enforcement action in connection with providers' call completion practices as necessary, as well as aiding consumers and the industry by adopting a rule prohibiting false ring signaling.<sup>6</sup>

The FCC also adopted a safe harbor provision at 47 CFR § 64.2107 giving qualifying providers relief from the data retention and reporting requirements subject to certain conditions. Initially, the FCC proposed two safe harbors: (1) the "Managing Intermediate Provider Safe Harbor," under which a provider uses no more than two intermediate providers in a call path and (2) the "Monitoring Performance Safe Harbor," which would have provided some relief from the rules to providers meeting certain performance standards. (*Call Completion NPRM*, ¶ 33.) Ultimately, the FCC adopted only one safe harbor, the "Managing Intermediate Provider Safe Harbor" ("Safe Harbor"), pursuant to which a provider gets some relief from the reporting and data retention obligations by certifying that the provider either uses no intermediate providers or that its contracts with intermediate providers allow for a total of no more than two intermediate providers in the call path, among other requirements. The FCC also provided a way for providers that have already addressed the call completion problem by taking steps to ensure calls to rural areas are being completed to seek a waiver of the data reporting and retention requirements.

Under the Safe Harbor, a qualifying provider's data retention and reporting obligations are reduced. A qualifying covered provider must comply with the reporting requirements for one year and must retain the required call records for only three months. To qualify for the safe harbor, a provider must:

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<sup>5</sup> The rules adopted in the *Rural Call Completion Order* require covered providers to record, retain, and report data about whether calls are "answered," or signal as "busy," "ring no answer" or "unassigned number." The terms are defined in the *Rural call Completion Order* and were clarified in the FCC's February 13, 2015, *Declaratory Ruling*. See *In re: Rural Call Completion*, Declaratory Ruling, WC Docket No. 13-39, DA 15-217 (Rel. Feb. 13, 2015). A "covered provider" is defined as "a provider of long-distance voice service that makest the initial long-distance call path choice for more than 100,000 domestic retail subscriber lines, counting the total of all business and residential fixed subscriber lines and mobile phones and aggregated over all of the providers' affiliates." Covered providers include local exchange carriers, interexchange carriers, wireless providers, or VoIP providers, but not intermediate carriers.

<sup>6</sup> The rules in Part 64 are as follows: 47 CFR § 64.2101 (Definitions); 47 CFR § 64.2103 (Retention of call attempt records); 47 CFR § 64.2105 (Reporting requirements); 47 CFR § 64.2107 (Safe Harbor); 47 CFR 64.2109 (Disclosure of data); and 47 CFR § 64.2201 (Ringing indication requirements). The rule on disclosure of data provides that the FCC will release information to a state requesting information if the state is able to maintain the confidentiality of the information. The rule specifying ringing indication requirements took effect January 31, 2014. The effective date for the other rules was delayed until further notice due to requirements of the Paperwork Reduction Act. On March 4, 2015, the FCC issued a Public Notice announcing that April 1, 2015, would be the date that long-distance voice providers must begin to record and retain data required by the *Rural Call Completion Order*, with the first reports due on August 1, 2015. See *In re: Rural Call Completion*, Public Notice, WC Docket No. 13-39, DA 15-291 (Rel. Mar. 4, 2015).

- (1) certify that it uses no intermediate providers or that its contracts with directly connected intermediate providers allow those providers to pass a call to no more than one additional intermediate provider;
- (2) certify that any nondisclosure agreement with an intermediate provider allows the covered provider to reveal the identity of the directly connected intermediate provider and any other intermediate provider to the FCC and to the rural carrier whose incoming calls have been affected by the performance of the intermediate carriers; and
- (3) certify that if it uses intermediate providers, it has a process to monitor the performance of those intermediate providers. The FCC did not require qualifying providers to use any particular process, requiring instead that providers describe the process they use.

Providers can invoke the safe harbor by filing a certification on any of the four quarterly filing dates throughout the year, with subsequent filings due annually thereafter.

In the Further Notice of Proposed Rulemaking, the FCC sought comments on additional measures that may help the Commission ensure a reasonable and nondiscriminatory level of service for completing long-distance calls to rural areas. Also, the FCC sought to improve the Commission's ability to monitor problems with completing calls to rural areas, and enhance the FCC's ability to enforce restrictions against blocking, choking, reducing, or restricting calls. The FCC sought comments on additional measures intended to further ensure reasonable and nondiscriminatory service to rural areas, including additional reforms pertaining to auto dialer traffic, intermediate providers, and other Safe Harbor options and reporting requirements.

The FCC received five petitions for reconsideration of the October 28, 2013, *Rural Call Completion Order*. In November 2014, the FCC denied four of the petitions and granted one to modify the rules to exempt a narrow set of calls from the data retention and reporting requirements.<sup>7</sup>

### **C. Relevant Iowa Statutes and Regulations**

The informal proceeding in which Board staff investigated Ms. Frahm's complaint in this case was conducted pursuant to the Board's authority in Iowa Code § 476.3(1) to investigate the reasonableness of the actions of the telephone service providers involved in the alleged call failures and pursuant to the Board's complaint procedures in chapter 6 of the Board's administrative rules, 199 IAC 6.

In the rural call completion cases before the Board, the Board either initiated the formal proceeding on its own motion pursuant to § 476.3(1) or granted OCA's request for further investigation pursuant to § 476.3(1), which provides that when Consumer Advocate files a petition for formal proceeding with the Board, the Board shall grant

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<sup>7</sup> See *In re: Rural Call Completion*, Order on Reconsideration, WC Docket No. 13-39, 29 FCC Rcd. 14026 (rel. Nov. 13, 2014).

the petition if the Board determines that “there is any reasonable ground for investigating the complaint.” In this and the other call completion cases presently before the Board, the Board found reasonable grounds for investigating the precise circumstances of the call completion complaints.

In docketing the cases for further investigation, the Board explained it was appropriate to take steps at the state level to respond to problems that appeared to be disrupting intrastate long-distance calls to rural consumers in Iowa. See, for example, *In Re: Hancock County Health Systems*, Docket No. FCU-2013-0005, "Order Granting Request for Formal Proceeding and Assigning to Administrative Law Judge," issued June 10, 2013.

In its May 26, 2015, reply to the long-term solutions offered by Windstream and Airus, OCA cites to Iowa Code § 476.3 and the Board's rule at 199 IAC 22.5 (1). That rule provides:

Requirement for good engineering practice. The telephone plant of the utility shall be designed, constructed, installed, maintained and operated subject to the provisions of the Iowa electrical safety code as defined in 199 IAC Chapter 25 and in accordance with accepted good engineering practice in the communication industry to ensure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished, and the safety of persons and property.

#### **D. FCC Enforcement Proceedings**

Since 2013, the FCC has resolved four rural call completion investigations. On March 12, 2013, the FCC announced that it had reached a settlement with Level 3 Communications, LLC, resolving an investigation into the company's rural call completion practices. The settlement established call completion standards and required a voluntary contribution to the U.S. Treasury in the amount of \$975,000.

On February 20, 2014, the FCC announced that it reached a settlement with Windstream regarding Windstream's rural call completion practices. Windstream agreed to pay \$2.5 million to resolve an investigation by the FCC's Enforcement Bureau and Windstream agreed to implement a three-year plan to ensure compliance with FCC requirements designed to combat the problem of long-distance calls failing to complete in rural areas. Windstream agreed to:

- Designate a senior corporate officer to serve as a compliance officer focusing on rural call completion issues.
- Cooperate with the FCC and rural LECs to establish a testing program to evaluate rural call completion performance whenever complaints or data indicate problems.

- Notify intermediate providers (companies that Windstream uses to deliver calls) that may be causing call completion problems and analyze and resolve such problems as soon as practicable.
- Cease using intermediate providers that fail to improve their performance.
- Institute a comprehensive plan to ensure future compliance with FCC rules, including development of a compliance manual.
- Report to the FCC any noncompliance with rural call completion rules within 15 days.
- File an initial compliance report in 90 days and annual compliance reports for three years. The contents of the compliance reports are specified in ¶ 17 of the Consent Decree and include such things as a description of the company's efforts to comply with the terms of the Consent Decree, with the rules adopted in the Rural Call Completion Order, and a certification of the company's compliance officer that the company has implemented and is following the compliance plan.

On June 4, 2014, the FCC announced that Matrix Telecom, Inc. (Matrix), a company headquartered in Texas, would pay \$875,000 to resolve an FCC investigation into whether the company failed to complete long-distance calls to rural areas on a just, reasonable, and non-discriminatory basis. The consent decree between the FCC and Matrix is similar to the one described above between the Commission and Windstream.

On January 26, 2015, the FCC announced that Verizon agreed to a \$5 million settlement to resolve an FCC inquiry into Verizon's failure to investigate whether customers in rural areas could receive long-distance or wireless calls to landline phones. The terms of Verizon's settlement require the company to pay a fine of \$2 million; spend an additional \$3 million over the next three years to address the rural call completion problem; appoint a Rural Call Completion Ombudsman; develop a system to identify customer complaints that may be related to rural call completion problems; limit its use of intermediate providers; monitor call answer rates; and host workshops<sup>8</sup> and sponsor an academic study on the issue; among other commitments.

### **III. Reports/Responses**

#### **A. Summary of OCA's Report. What does OCA Identify as the Causes and the Solutions? (OCA Report filed on November 13, 2014) (Tara)**

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<sup>8</sup> Staff understands that Verizon held a rural call completion workshop on April 22, 2015, in Washington, D.C., and posted a recording of the workshop on its website.

OCA stated that none of the carriers could isolate the cause of the call failures.<sup>9</sup> While the causes of the rural call termination issues have yet to be specifically identified, OCA believes the causes of the call completion problems coincided with 1) the proliferation of intermediate carriers, 2) intermediary carriers are not always financially sound, 3) inadequate monitoring of their performance, 4) inadequate coordination between and among the carriers, 5) inadequate record-keeping, and 6) inadequate physical facilities reaching the rural destination. OCA found no direct evidence of any deliberate cause for the call completion problems.

OCA found the following:

- Since November 2010, Iowa traffic has been processed by Windstream using the SONUS network, which routes calls to an underlying carrier using the least cost routing (LCR) database. (The SONUS network is a Legacy Nuvox Network).
- The LCR is determined by the originating and the terminating NPA/NXX.
- In this complaint, one trouble ticket between February 6 and March 7, 2013, for calls from Frahm's number to the number she dialed in Mediapolis identified the trouble as long post-dial delay.
- Insufficient bandwidth access, especially at peak hours, due in turn to the fact that the volume of traffic to rural areas does not justify the investment .
- The systems or mechanisms in place for passing a call to a second (or third or fourth) downstream intermediate carrier if a first (or second or third) downstream intermediate carrier is unable to complete the call at times function properly. However, when the facilities are constrained or during an outage, the systems or mechanisms do not function properly or quickly enough.
- Windstream determines how best to route calls to ensure the calls are completed.
- Windstream changed Ms. Frahm to an OOT network, which was a Verizon network, that resolved the problem.
- The FCC's new rules are intended to increase the FCC's ability to identify and address problems associated with completing calls to rural areas and to assist the FCC in comparing performance across providers to uncover the source of rural call completion problems.

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<sup>9</sup> OCA stated the trouble ticket also identified One Communications Corp. (now acquired by EarthLink) as the second-tier downstream intermediate carrier on the failed call. One Communications Corp. had been removed from the routing. EarthLink offered in responses to OCA's data request that it does not know and could only speculate as to the cause of the problem in this instance. The "educated guess" of the EarthLink's engineer is that the failures are due to insufficient bandwidth access, especially at peak hours, and that the insufficient bandwidth is due in turn to the fact that the volume of traffic to rural areas does not justify the investment. OCA Ex. E.

**B. Summary of Windstream's Report. What does Windstream Identify as the Causes and the Fixes?** (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

Windstream says that Carolyn Frahm became a local exchange customer on February 6, 2013, after experiencing call completion difficulties with Mediacom, her previous local service provider. On February 27, March 1, and March 7, 2013, Ms. Frahm called Windstream to report calls to her friend in Mediapolis were allegedly not completing. After each of the first two calls from Ms. Frahm, Windstream opened a trouble ticket, tested the line, and Ms. Frahm was able to complete the call successfully. On each occasion, a second call was also made as a test call, and they completed successfully. It is not clear why there were difficulties in completing the calls. After the third call from Ms. Frahm, Windstream changed the intermediate carrier to Verizon. On March 25, 2013, Ms. Frahm confirmed that her service was working properly and further call completion problems have not been reported. OCA's report acknowledges that none of the carriers could isolate the cause of the call failures. Changing the intermediate carrier to Verizon appears to have resolved the alleged problems Ms. Frahm was having with call completions.

Windstream notes that the intermediate carrier prior to Verizon was Intelepeer, Inc. (Intelepeer), and is now known as Airus, Inc. (Airus). Intelepeer apparently handed Ms. Frahm's calls to One Communications Corp., now known as Earthlink, as a second tier intermediate carrier. Windstream also says that primary carriers, such as Windstream do not have the technical ability to identify whether its intermediate carriers hand off calls to a third party.

**C. Summary of Airus' Report.** (Filed on December 15, 2014) (Larry)

Airus believes that the OCA's report does a commendable job summarizing the information provided by Airus and grappling with complex data and information pertaining to call routing. Airus says it doesn't see any glaring inconsistencies between the information Airus provided in discovery and the way the information was described in Section I of OCA's report.

**D. Detailed Summary of OCA's Proposed Nine "Concrete Steps Toward a Long-Term Solution."** (OCA Report filed on November 13, 2014) (Tara)

1. OCA Proposes that Carriers Acknowledge Responsibility for Performance of Downstream Carriers. (Tara)

Originating and upstream intermediate carriers should acknowledge responsibility for the performance of the downstream intermediate carriers they engage to complete the calls.

Windstream's response to OCA's proposed Step 1 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

Windstream notes that OCA's Step 1 requirement for carriers to acknowledge responsibility for the performance of downstream carriers imposes an unrealistic and unknown burden on originating carriers. To "acknowledge responsibility" is such an amorphous term that, without more definition, it has no practical meaning or application to the issue of call completion.

It is necessary to allow multiple carriers to be available to carry all or part of a call in the event the primary or secondary carrier does not have facilities where needed, or its capacity is overloaded, or it has technical difficulties for the PSTN to have redundancy.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA disagrees with Windstream and contends that the originating carriers must manage their downstream carriers. OCA believes originating carriers should insist their downstream carriers manage their downstream carriers, which would allow planning for adequate capacity and reliable transmission at peak calling times.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream requests that OCA clarify what it means for an originating carrier to "acknowledge responsibility" for downstream carriers.

Airus' response to OCA's proposed Step 1 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 1 is for originating and upstream carriers to acknowledge responsibility for the performance of intermediate downstream carriers they engage to complete calls. Airus says that end-to-end responsibility and accountability is a laudable goal, but it is not practical in all circumstances. Airus has control only over the portion of the call that it handles, and to a lesser degree over the downstream carrier to which it hands off a call. An upstream carrier may not even know the identities of the downstream carriers, much less be able to be responsible for their performance. Airus says that it is unclear what OCA means when it says that originating and upstream intermediate carriers should "acknowledge responsibility" for the performance of downstream intermediate carriers. Airus does not understand what OCA is proposing in this step.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA disagrees with Airus. OCA points out that its suggestion is that downstream carriers be responsible for the performance of the downstream transmission.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus notes that it remains unclear what OCA means by "acknowledging responsibility" under Step 1.

2. OCA Proposes Maintaining a List of Downstream Carriers on File with the Board. (OCA Report filed on November 13, 2014) (Tara)

OCA suggested that the carriers provide contact information for the downstream carriers to the Board, and update the information when changes are made.

Windstream's response to OCA's proposed Step 2 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

OCA's proposed Step 2 requires carriers to maintain on file with the Board a list of downstream carriers currently being used to carry Iowa traffic. Windstream says that the number and identity of downstream carriers are subject to frequent changes and the originating carrier most likely does not know the identity of all second and third tier downstream carriers. Windstream continues by saying the OCA makes no case as to why this information is necessary or useful and what would be done with the information if it is provided. This proposed step imposes an undue burden on originating carriers and accomplishes little or nothing.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA disagrees with Windstream that this task would impose an undue burden.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream notes that OCA has not provided a rationale as to why a list of downstream carriers would be useful for the Board. Identifying the carriers on a failed call requires an individual inquiry by the carriers involved. The lists serve no useful purpose and should not be required.

Airus' response to OCA's proposed Step 2 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 2 involves requiring carriers to maintain on file with the Board a list of downstream carriers (and contact information) they use to carry Iowa traffic. Airus states that it is unclear how maintaining a list on file with the Board would contribute to a long-term solution and OCA fails to explain how this will avoid rural call

completion problems before they occur or provide any useful information after it happens. The list of intermediate carriers changes over time and this means all companies using intermediate carriers would need to constantly update the list on file with the Board. The costs of compliance with this requirement certainly outweigh any benefit OCA may perceive. This requirement is an undue burden.

A similar requirement to maintain an updated list was proposed by the Minnesota Department of Commerce, but was not adopted by the Minnesota Public Utilities Commission.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA disagrees with Airus. While Airus did not provide an estimated "cost of compliance," OCA believes the cost should be minimal.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus notes that OCA's reply says requiring such a list would not be an undue burden, would assist the Board in addressing complaints, taking action to ensure network reliability, and that requiring carriers to submit and update the list would involve almost no expense. Airus says OCA does not explain how the list would assist the Board in addressing complaints. A list would have not expedited the identification of the problem or prevented the problem from occurring. An investigation would still be needed. This requirement would involve costs, but would not produce a benefit; this, by definition, is an undue burden.

3. OCA Proposed a Reduction in the Number of Intermediate Providers in the Call Paths. (OCA Report filed on November 13, 2014) (Tara)

If a provider can implement the "safe harbor" by limiting the number of intermediate carriers to two or fewer it would help in the call completion. If that cannot be accomplished OCA offers that carriers reduce the number of intermediate providers in the call path so they could be better able to manage performance to rural areas. Also, limiting the number of intermediate providers would limit the potential for lengthy setup delay and looping.

OCA stated the reductions can be accomplished either through new interconnection agreements or through new construction.

Windstream's response to OCA's proposed Step 3 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

Step 3 requires carriers to reduce the number of intermediate carriers in the call path. Windstream says that reducing the number of carriers may have an unintended consequence of causing more calls to not be completed. Limiting the number of carriers may help to prevent looping, but prevention of looping can also be accomplished by enforcement of appropriate contractual terms. OCA provides no guidance as to how the number of intermediate providers can be reduced and what is the appropriate number of intermediate providers. Windstream joins Airus in suggesting that the Board consider adopting rules to require LECs to provide direct connections to long-distance carriers whenever it is technologically feasible.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA emphasizes it is not suggesting that the number of intermediate carriers be reduced to a point that would exacerbate the rural call completion problem. OCA suggests that "responsible" action to reduce the number of intermediate carriers will help restore network reliability. OCA remarked that looping is not the only problem that needs to be addressed.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream says that OCA responded saying it does not want to exacerbate the problem by reducing the number of intermediate providers. OCA does not provide guidance on how the number of intermediate carriers can be reduced and what is the appropriate number. OCA says that "responsible action" is required to reduce the number of intermediate carriers to restore network reliability. OCA's suggestion is vague and ambiguous to the point of being meaningless. Windstream questions what is "responsible action?"

Airus' response to OCA's proposed Step 3 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 3 is to reduce the number of intermediate carriers in the call path. Airus states that it has already engaged in the effort to reduce the number of intermediate carriers involved in calls within Iowa by entering into a new agreement and establishing new direct interconnects with rural LECs in Iowa. Airus will continue to seek out opportunities to reduce the number of intermediate carriers because it believes this is the best way to address rural call completion problems. Airus has tried to enter into discussions for direct interconnections with a number of rural carriers and its requests have been rejected. Airus believes that rural carriers lack the proper incentives to establish direct interconnects with carriers terminating telecommunications traffic to their rural service territories because doing so could reduce the level of intercarrier compensation. Airus continues by saying it is important that a rigid requirement requiring the maximum number of intermediate carriers in the call path not be dictated to carriers in Iowa. An important part of the incentive

structure is for rural carriers to offer nondiscriminatory rates, terms, and conditions for establishing direct interconnects for the purpose of carriers terminating traffic.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledged Airus' agreement with its proposal. OCA noted that Airus has reduced the number of intermediate carriers. OCA is not suggesting a rigid maximum number of intermediate carriers.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus does not address this issue in its surreply.

4. Promote Transparency in the Use of Downstream Carriers (OCA Report filed on November 13, 2014) (Tara)

OCA believes a long-term solution should include a commitment from carriers to certify that any nondisclosure agreement permits disclosure to the Board. This would allow both the identity of any intermediate providers and the relevant contract to be transparent to the Board.

Windstream's response to OCA's proposed Step 4 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

Promote transparency in the use of downstream carriers is OCA's proposed Step 4. Windstream notes that it does not disagree with OCA's observation regarding the need for transparency. Windstream says if transparency is desirable, the Board should consider adopting a rule that requires confidentiality provisions in contracts with intermediate carriers to be superseded by the need for transparency and disclosure of the identity of underlying carriers in certain situations.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledged that Windstream doesn't disagree with its proposed Step 4.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream says a Board rule should only be adopted if "transparency" will actually contribute to the solution to rural call completion problems.

Airus' response to OCA's proposed Step 4 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 4 is to promote transparency in the use of downstream carriers by certifying that any nondisclosure agreement permits the disclosure to the Board of both the identity of any intermediate providers as well as the relevant contract. Airus states that it is reasonable to expect that when a rural call completion problem is reported involving intermediate carriers, the Board will have access to the information it needs, including the identity of the intermediate carriers. Airus says that it has limited ability to force disclosure language into a vendor's contract and it is not reasonable to require a commitment to certify that any nondisclosure agreement permit disclose to the Board of the contract between a carrier and an intermediate carrier. OCA has not identified any information that would be included in a contract between a carrier and an intermediate provider that would help the Board address rural call completion problems or how such a requirement would contribute to a long-term solution.

Airus notes the OCA's discussion of Step 4 that makes a reference to the FCC's rules (47 C.F.R. § 64.2107) which as a condition for safe harbor requires an officer or director of a covered carrier seeking safe harbor to certify that:

Any nondisclosure agreement with an intermediate provider permits \_\_\_\_\_ (entity) to reveal the identity of the intermediate provider and any additional intermediate provider to the Commission and to the rural incumbent local exchange carrier(s) whose incoming long-distance calls are affected by the intermediate provider's performance.

OCA's proposed step goes beyond the requirement in FCC rule 64.2107 by requiring the disclosure of the contract with the intermediate provider rather than only requiring the carrier to identify the intermediate provider. Additionally, the OCA's proposed disclosure requirement applies to all carriers regardless of whether the carrier seeks the federal safe harbor or the carrier is subject to the FCC's rural call completion reporting rules.

Airus says that OCA has not explained how information in a contract that would be required to be disclosed in this step helps the Board address call completion problems or how such a "transparency" requirement contributes to a long-term solution.

OCA reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA argues transparency increases understanding and accountability, which would be an incentive for companies to complete the call. OCA believes that greater transparency than what is required under the safe harbor provision in the FCC rules is in the public interest.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus says that the OCA has not identified any tangible benefit or public interest benefit of going beyond the FCC's safe harbor rules. If dictating non-disclosure agreement language that requires disclosure of confidential company-to-company contracts was in the public interest or helped solve the problem, then the FCC would have likely implemented such a requirement.

5. Actively Participate in the Standard-Setting Work of the ATIS.  
(OCA Report filed on November 13, 2014) (Tara)

OCA stated that at this time the development of industry standards for call completion has not been completed and therefore industry participation by Windstream and Airus in the ATIS efforts would be helpful. OCA proposed when and as new standards are developed, companies should report them to the Board. OCA recommends that once the standards are more fully developed for all technologies, the Board should consider giving these standards the force and effect of law.

Windstream's response to OCA's proposed Step 5 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014)  
(Larry)

OCA's proposed Step 5 requires carriers to actively participate in the standard-setting work of the ATIS. Windstream says that the Handbook can be a useful guide and that ATIS may very well assist in the development of industry standards. As a matter of policy, the Board should not tell Windstream, Airus, or any other company what specific industry programs any company should be involved in.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA interprets Windstream's reply as resisting participation in the work of ATIS.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

OCA's reply does not mention Windstream being required to report to the Board any new industry standards proposed by ATIS and presumes that OCA has dropped that proposal.

Airus' response to OCA's proposed Step 5 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 5 is for Airus to "actively participate" in the development of industry standards by the Alliance for Telecommunications Industry Solutions (ATIS). OCA also wants the companies to report new standards to the Board when they are developed. Airus believes that the industry-standards work being performed by ATIS is important and that carriers should be familiar with those standards. Airus does not believe it should be required to become an "active participant" (whatever that means)

with ATIS, but it will commit to monitoring the work done by ATIS and incorporate standards as necessary. Carriers should not be subject to an ongoing requirement to report to the Board new ATIS standards as they are developed as any updates to ATIS call completion and call termination standards can be downloaded at no cost from the ATIS website. ATIS already has standards associated with intercarrier call completion/call termination that serve as the basis for some of OCA's proposed solutions. The standards were adopted without active participation by Airus and there is nothing to suggest that the standards would have been better or different if Airus or any other non-member carrier would have actively participated in the process.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA believes that Airus' resistance to active participation with work at ATIS could impede progress in achieving compatibility among systems. OCA notes that Airus may not adopt the ATIS standards voluntarily.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

OCA's reply does not shed any additional light on what it means to "actively participate." Airus also notes that there is no information to substantiate OCA's claim that Airus has not and may not adopt ATIS standards voluntarily.

6. Exercise Responsibility Over the Use of Downstream Intermediate Carriers. (OCA Report filed on November 13, 2014) (Tara)

OCA offers that the originating and intermediate carrier that uses other intermediate carriers should have sound policies addressing the following 13 elements:

- Establish and conduct standardized testing routines;
- Investigate whether downstream carriers have properly designed and functioning equipment and software;
- Investigate whether downstream carriers have sufficient capacity in their switches and call paths to carry the traffic to the intended destinations;
- Require each downstream carrier to provide specific information regarding its system and the limitations, including any difficulties its system may have interoperating with other systems using a different technology;
- Require each downstream carrier to provide specific information regarding any bandwidth or other capacity constraints that would prevent its system from completing calls to particular destinations at busy times;

- Require each downstream carrier to have properly designed and properly functioning alarms to ensure immediate notice of any outages on its system;
- Require each downstream carrier to have properly designed and properly functioning mechanisms in place to ensure that the downstream carrier, if unable to complete a call, timely releases the call back to the upstream carrier;
- Require each downstream carrier to have properly designed and properly functioning mechanisms in place to ensure that the downstream carrier, if making successive attempts to route the call through different lower-tiered downstream carriers, timely passes the call to a second (or third or fourth) lower-tiered downstream carrier if a first (or second or third) lower-tiered downstream carrier cannot complete it;
- Require each downstream carrier to have properly designed and properly functioning mechanisms in place to detect and control looping, including the use of hop counters<sup>10</sup> or other equivalent mechanisms that alert a carrier to the presence of a loop;
- Establish direct measures of quality and require downstream carriers to meet them;
- Establish and implement appropriate sanctions for intermediate carriers that fail to meet standards;
- Require downstream carriers to manage lower-tiered downstream carriers and to hold lower-tiered downstream carriers to the same standards to which they themselves are held; and
- Define the responsibilities of downstream carriers in an agreement.

[Staff reviews each company's response to each of the 13 elements on page 41 of this memo.]

Windstream's response to OCA's proposed Step 6 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

OCA's proposed Step 6 is for each originating and intermediate carrier that uses downstream intermediate carriers to have sound policies in place to address thirteen individual elements covering: testing, properly functioning systems, equipment, software, alarms, and mechanisms; sufficient capacity; service quality measures; and sanctions for substandard performance. Windstream notes that it does not disagree with Windstream's<sup>11</sup> 13 elements and that it substantially complies with each of the points.

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<sup>10</sup> The number of hops it will take for a packet to make it from a source to a destination (the number of nodes (routers or other devices) between a source and a destination).

<sup>11</sup> Windstream makes reference to "Windstream's 13 elements." Staff believes this is a reference to the 13 elements identified in OCA's Step 6 on page 34-35 of OCA's Report. Windstream restates in its surreply on this issue saying "OCA's proposed 13 elements."

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledges Windstream's agreement with its proposal.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream states again that it substantially complies with OCA's proposed 13 elements, and to the extent OCA's proposal helps to avoid rural call completion problems, Windstream will continue to comply with them.

Airus' response to OCA's proposed Step 6 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 6 is for each originating and intermediate carrier that uses downstream intermediate carriers to have sound policies in place to address 13 individual elements covering: testing, properly functioning systems, equipment, software, alarms, and mechanisms; sufficient capacity; service quality measures; and sanctions for substandard performance. Airus says that this request is unduly burdensome and unworkable because they would be required to monitor and manage the networks of downstream carriers. Airus continues by stating the costs of adhering to such onerous requirements outweigh whatever contribution to the long-term solution they may produce. No other regulatory body that has analyzed the rural call completion issue has put into place requirements as onerous as those proposed by the OCA in this step. A better solution would be to remove the barriers that may be blocking attempts to establish direct interconnects with rural LECs in Iowa. Airus states that they have no control on the downstream carriers' design and function of their networks.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA noted the position taken by Airus is contrary to Windstream's agreement to the implementation of the 13 elements of downstream carriers management proposed. While not all of the 13 elements apply to Airus, OCA stated end-to-end accountability and reliability cannot be achieved unless the upstream and originating carriers manage their downstream intermediate carriers.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus disagrees that the additional 13 separate steps are needed and that the steps are something it can unilaterally control. Airus has no control over how downstream carriers design and function their networks.

7. Provide Copies of the Iowa Portion of the Federal Data and the FCC's Analysis of the Iowa Data to the Board and OCA. (OCA Report filed on November 13, 2014) (Tara)

OCA suggests that companies reporting to the FCC should provide copies of their Iowa specific data and the FCC's analysis of the Iowa data to the Board and OCA to evaluate problems and implement solutions.

Windstream's response to OCA's proposed Step 7 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

OCA proposes in Step 7 that carriers provide copies of the Iowa portion of the federal data and the FCC's analysis of the Iowa data to the Board and OCA. Windstream says that in this proceeding they responded to data requests that required them to separate Iowa data from federal data and found it to be labor intensive. If Windstream is to provide state-specific reports for the 49 states in which they do business, the administrative burden will be overwhelming.

The FCC's oversight systems are in place and functioning. Windstream's reports to the FCC demonstrate that the processes of compiling data, reporting it to the FCC and monitoring intermediate carriers are working satisfactorily, and there is no reason OCA and the Board should feel compelled to oversee or second guess the FCC's already established oversight of Windstream.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

While Windstream believes this task would be labor intensive and duplicative, OCA argues that Windstream has structured its state-specific data collection in a way that makes it labor intensive to extract.

On March 9, 2015, OCA updated its reply to reflect that the FCC issued a public notice on March 4, 2015, that "covered providers," as defined at 47 C.F.R. § 64.2101(c), must begin recording and retaining the data required for rural call completion reporting on April 1, 2015, and must submit their first certified report to the FCC by August 1, 2015, reflecting monthly data for April through June 2015.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream says that OCA does not address the burden placed on them to extract Iowa-specific data from its nationwide data submitted to the FCC or what OCA and the Board would do with Windstream's Iowa specific data. Windstream continues by saying the OCA does not contend that the FCC's oversight is inadequate. The data by themselves do not prevent rural call completion problems.

Airus' response to OCA's proposed Step 7 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 7 is for a carrier subject to the FCC's reporting requirements to, on an ongoing basis, provide copies of its Iowa data submitted to the FCC as well as the FCC's analysis of the Iowa data to the Board and OCA. Airus states that this requirement appears to be unnecessary as the FCC has indicated they will release the information to states upon request, if those states are able to maintain confidentiality of this information. Airus continues by stating it is reasonable for the Board to have access to call completion data and that it is reasonable for carriers to submit their data about Iowa if the Board will not otherwise have access to this information from another source.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA noted that this step would not apply to Airus.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus did not provide a response to this item in its surreply.

8. Keep Routing Tables Up-To-Date. (OCA Report filed on November 13, 2014) (Tara)

Since routing tables are constantly changing OCA suggests that the tables be updated through the Local Exchange Routing Guide (LERG) of the Traffic Routing Administration.

Windstream's response to OCA's proposed Step 8 (Filed on December 16, 2014, revised on December 22, 2014) (Larry)

Windstream says that keeping its routing tables up-to-date, OCA's Step 8, is included in their business practices and will commit to continue this practice.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledged Windstream's agreement that companies must update their routing tables.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Keeping routing tables up-to-date is an essential function of providing telecommunications service that Windstream does on a regular basis.

Airus' response to OCA's proposed Step 8 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 8 is to keep routing tables up-to-date through the Local Exchange Routing Guide (LERG) of the Telecom Routing Administration. Airus agrees that accurate routing tables are essential to successful call completion and already takes steps to ensure accurate and up-to-date routing tables.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledged Airus' agreement.

Airus' surreply to OCA's Reply (Filed on March 16, 2015) (Larry)

Airus did not provide a response to this item in its surreply.

9. Provide Periodic Progress Reports to the Board on Implementation. (OCA Report filed on November 13, 2014) (Tara)

OCA suggests that companies provide periodic reports to the Board regarding progress in fulfilling any commitments they make.

Windstream's response to OCA's proposed Step 9 (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

It is unclear as to what OCA means by proposed Step 9 on providing periodic reports to the Board on implementation. Windstream believes such reports are an undue administrative burden, duplicative of functions already provided by the FCC and unnecessary.

OCA's reply to Windstream's response (OCA Reply filed on February 16, 2015) (Tara)

State progress reports are appropriate and OCA does not consider this task to duplicate work for Windstream.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream says that OCA restates that "progress report" would not be duplicative and fails to provide an explanation of what is meant by "progress reports", or how frequently such reports should be filed, or how they help to resolve rural call completion problems.

Airus' response to OCA's proposed Step 9 (Filed on December 15, 2014) (Larry)

OCA's proposed Step 9 is for each company to provide periodic reports to the Board regarding the progress it makes in fulfilling the commitments it makes.

Airus also thinks this is a reasonable recommendation and suggests that the reporting not be required more frequently than quarterly. Airus also states that the reporting should focus squarely on the company's commitments to the Board regarding call completion and not be expanded to address other extraneous issues.

In conclusion, Airus states its interest to assist with developing a long-term solution and recommends the Board address the issues in a manner that will afford all interested and necessary parties an opportunity to participate. Airus continues by stating that OCA's recommendations do not account for either the financial incentives that drive the proliferation of intermediary carriers, or sufficiently address the barriers carriers Airus face when attempting to reduce the number of intermediary carriers by establishing direct interconnects with rural LECs in Iowa.

OCA's reply to Airus' response (OCA Reply filed on February 16, 2015) (Tara)

OCA acknowledged Airus' agreement that companies should file reports with the Board.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Airus did not provide a response to this item in its surreply.

**E. Windstream's Summary of Consent Decree Obligations and Proposed Solutions.** (Filed as confidential on December 16, 2014, revised as public on December 22, 2014) (Larry)

Windstream provided a summary of the Consent Decree entered into with the FCC's Enforcement Bureau. The Consent Decree and order adopting was released on February 20, 2014.

The Consent Decree establishes comprehensive requirements designed to address and resolve call completion difficulties throughout Windstream's network which includes Iowa. The Consent Decree requires Windstream to develop and implement a compliance plan, designate a compliance officer, establish performance metrics, develop a training program for certain employees, and to provide periodic reports to the FCC.

The compliance manual constitutes the compliance plan required by the Decree and provides for three principal measures of service. These are discussed in paragraphs below.

The Network Effectiveness Ratio (NER) expresses the ability of the network to deliver calls to the far-end terminal and the relationship between the number of seizures and the sum of the number of seizures resulting in either an answer message, or a user busy, or a ring no answer, or in the case of ISDN a terminal rejection/unavailability. This information is used to help gain an understanding as to why calls are not answered or reaching their destination. Windstream has established a performance rate metric of 90 percent for NER and uses this metric to manage intermediate carriers.

The Call Answer Rate (CAR) is determined by dividing the number of calls answered by the number of calls attempted and is used to measure network quality and call success rates. Windstream has established a performance metric of 60 percent for CAR. Intermediate providers are measured according to the industry standard metric of Trouble Tickets per Million Minutes (TT/MM). If an intermediate provider's trouble ticket count exceeds acceptable limits of 2 TT/MM in any 30 day period, the carrier may be removed from routing for the affected area until testing and re-certification have been completed. This metric is not formally required by the Consent Decree.

To comply with the terms of the Compliance Manual developed pursuant to the Consent Decree, a standardized report is provided to Windstream's compliance officer monthly, and a quarterly report is submitted to the FCC. For each Operating Company Number (OCN), Windstream's quarterly report to the FCC contains the following information:

For each rural OCN:

- The OCN
- The state
- The number of interstate call attempts
- The number of interstate call attempts that were answered
- The number of interstate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number
- The number of intrastate call attempts
- The number of intrastate call attempts that were answered
- The number of intrastate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number

For nonrural OCNs in the aggregate:

- The number of interstate call attempts

- The number of interstate call attempts that were answered
- The number of interstate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number
- The number of intrastate call attempts
- The number of intrastate call attempts that were answered
- The number of intrastate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number

If the intermediate provider fails to meet the applicable performance metrics, it is placed on an exception report. After review of the compiled data and exception reports, an intermediate carrier may be removed from routing for the affected OCN. When an intermediate provider is removed from routing, it must be tested and re-certified before being placed back in service for Windstream. Since entry of the Consent Decree, Windstream has sent one remedial notice to an intermediate carrier, but it has not had to remove an intermediate carrier from routing in Iowa.

OCA's Discussion of Windstream's Explanation of Consent Decree  
(OCA Report filed on November 13, 2014) (Tara)

OCA stated that Windstream is providing data sheets to its compliance officer on a monthly basis per the Compliance Plan. OCA received the data pertaining to Iowa for May, June, July, and August 2014. After OCA reviewed the data being provided in the Compliance Plan, OCA questioned whether the information provided by Windstream to its compliance officer and to the FCC is meaningful, and whether it provides any summaries and recommendations.

OCA states that Windstream offers the following concrete steps it has taken, is taking, and will continue to take to solve the problems of rural call completion.

1. Comply with the Consent Decree. Windstream's obligations under the Consent Decree are undertaken on a nation-wide basis, and Windstream is committed to complying with its nation-wide obligations to work toward preventing rural call completion failures in Iowa.
2. Testing of intermediate carriers. Windstream performs and will continue to perform testing of intermediate carriers' capability prior to contracting with them. Windstream will require intermediate carriers to have properly operating alarms in their systems to provide prompt notification of any outages.
3. Respond promptly to reports of call completion problems. Windstream does and will continue to respond promptly to reports of call completion problems, open trouble tickets where necessary, and Windstream will move expeditiously to resolve the problem, including changing the

intermediate carrier whenever appropriate. The Board and all parties should explore implementing procedures for reporting, investigating, and resolving complaints on an expedited basis.

4. Require calls to be routed back to Windstream. If an intermediate carrier is unable to complete a call, it is and will be required to route the call back to Windstream so the call can be completed through alternative facilities.
5. Participate in rule-making initiatives of the Board. In the event that the Board initiates a rule making procedure to adopt clear industry standards and to assure that consistent treatment of carriers is provided, Windstream commits to participate in the process. The matter of rural call completion problems should be addressed on an industry-wide basis.

OCA's response to Windstream proposed solutions (OCA Reply filed on February 16, 2015) (Tara)

OCA is in agreement with Windstream that it should comply with its FCC Consent Decree. According to OCA, Windstream's failure to provide any significant information regarding any progress being made under the three-year compliance plan, coupled with Windstream's resistance to discovery, suggests the problems are serious. OCA supports the testing of intermediate carriers, the use of alarms to provide notification of outages, the routing of calls back to Windstream for advance routing, and prompt attention to complaints.

OCA would support a rule making.

Windstream's surreply to OCA's reply (Filed on March 16, 2015) (Larry)

Windstream says it is committed to complying with the FCC Consent Decree and is taking good faith steps to address rural call completion problems wherever they exist. Windstream says it is notable that no other rural call completion complaints have been filed in Iowa since Ms. Frahm's complaint was filed more than two years ago.

Windstream says that the FCC has established an electronic portal for filing rural call completion complaints and that they are investigated and resolved in a matter of days, rather than years. Windstream continues by saying the Board could consider establishing a similar facility.

Windstream joins Airus and urges the matter of rural call completion problems be considered to be an industry-wide issue and the call completion cases before the Board be addressed on an industry-wide basis, rather than individual case-by-case proceedings.

**F. Airus Proposed Solutions** (Filed on December 15, 2014) (Larry)

Airus says that OCA's steps do not address the root cause of the proliferation of intermediate carriers. OCA does not discuss nor do the proposed nine steps address the reason behind the "proliferation of intermediate carriers." The root cause is financial incentives brought about by high termination rates in rural areas. It is common knowledge that the cost of terminating traffic in rural areas is higher than the cost to terminate in more urban non-rural areas. It is not uncommon to cost 5 cents or more per minute to terminate long-distance traffic in rural Iowa, which is exponentially higher than the \$0.001917 per minute rate for terminating long-distance traffic in more urban areas served by CenturyLink QC.

Airus continues by saying that some of the rural Iowa local exchange carriers have stimulated large amounts of inbound traffic through free conference calling and chat line services. In an effort to mitigate and adapt to the high call termination costs, interexchange carriers have used least cost routing (LCR). LCR is the practice of selecting the path for communications traffic based on the carrier that provides the lowest cost to route and terminate the traffic from the originating carrier to the terminating carrier. The lowest cost path typically involves one or more intermediate carriers and is driven by the incentive to find the cheapest route to terminate traffic to rural areas.

Rates involved in terminating long-distance traffic to Iowa rural LECs who subtend the INS tandem switch leads to the proliferation of intermediate carriers. Direct end office interconnections could allow long-distance carriers to avoid paying the rural LEC for tandem switching and transport. Direct end office interconnection would help to eliminate an intermediate carrier. Rural companies have rebuffed requests of carriers like Airus to establish direct interconnection. Airus contends that some of the rural LECs pick and choose those given direct connections. Airus notes that OCA's statement of INS's tandem switching and transport costs remaining in place following intercarrier compensation reform only highlights the importance of direct interconnections with rural Iowa LECs.

In late 2011, the FCC released its *Connect America Fund Order* which involves reforms to the intercarrier compensation regime for both non-local and local traffic. The reforms will reduce terminating switched access rates and reciprocal compensation rates to a bill-and-keep arrangement. Terminating end office switched access rates and reciprocal compensation rates will be reduced to \$0.0007 for price cap carriers and LEC carriers that mirror price cap rates on July 1, 2016, and for rate-of-return carriers on July 1, 2019. Bill-and-keep arrangements will be effective for price cap carriers and LEC carriers that mirror price cap rates on July 1, 2017, and for rate-of-return carriers on July 1, 2020. When these changes are incorporated the financial incentives to find cheap call routes will be virtually eliminated. Ongoing transition to bill-and-keep should be recognized as a major part of the solution to rural call completion problems and the periodical review of regulatory requirements on call terminations should occur.

Airus states that the piecemeal process being used in Iowa to address rural call completion complaints stands in stark contrast to the comprehensive, industry-wide approaches used by other regulatory bodies to address rural call completion issues. The industry-wide approach is not included in OCA's proposed nine steps. Addressing rural call completion issues should be a consolidated, comprehensive and collaborative industry-wide approach.

Additionally, the Board should consider establishing an online portal to be used by consumers to submit rural call completion complaints and for companies to respond to the complaints. The FCC has established an online system that seems to work well in tracking down and addressing the cause of rural call completion complaints in a matter of days as compared to the 17 months this proceeding has already been open.

Airus provides seven specific guidelines that should be used for evaluating OCA's proposed steps for a long-term solution.

1. Steps should reasonably contribute to the long-term solution: the overarching goal is to implement a long-term solution to the call completion problems and every step should serve a specific purpose in achieving that long-term solution. Any steps that do not have a direct connection to this goal are unnecessary and should not be adopted.
2. Concrete steps should be just that – “concrete”: steps must be clear and precise so that the carrier, the Board, and OCA know what to expect. Any steps that are nebulous or vague can create confusion and should not be adopted.
3. Steps should produce benefits that outweigh the costs of compliance: for the steps to work they must be practical as well as economically feasible. If a step is relatively onerous for a carrier, it should at least produce tangible benefits that justify the burdens associated with compliance. Any steps that are unduly burdensome, are costly and impractical, should not be adopted.
4. Steps should take into account rural call completion work performed in other jurisdictions: rural call completion issues have been investigated by numerous regulatory bodies including the FCC, MPUC, ORPUC, California Public Utilities Commission (CPUC) and others. It is reasonable for the long-term solution ultimately adopted for Iowa to at least consider the solutions to rural call completion issues adopted by other regulatory bodies, as well as the process used to arrive at their solutions.
5. Steps should take into account all root cause(s) of the rural call completion problem: for steps to be effective they must address the root

causes of rural call completion problems. OCA has identified the proliferation of intermediate carriers as the primary cause of rural call completion problems, which coincides with the findings by other regulatory bodies such as the FCC. The OCA does not discuss, nor do its proposed steps take into account, the factor(s) causing a proliferation of intermediate carriers.

6. Steps to a long-term solution should comprehensively and effectively address rural call completion problems: the piecemeal approach addressing rural call completion problems creates unnecessary duplication of effort and wastes valuable time and resources. A more holistic approach needs to be implemented to streamline the process and resolve these problems quicker and with less manual intervention.
7. Steps should provide appropriate incentives rather than engage in micro-managing: the most effective regulatory requirements are those which provide incentives to carriers to achieve a certain objective, rather than to micro-manage the inter-workings of a company.

Airus is confident that using the guidelines for evaluating steps to a long-term solution will assist the parties in arriving at a long-term solution that strikes the appropriate balance.

OCA's Response to Airus' proposed solution (OCA Reply filed on February 16, 2015) (Tara)

OCA stated that Airus' proposal does not offer a solution to the rural call completion problem.

In response to Airus' suggestion that the Board consider an online portal for call completion complaints, OCA noted that the Board has a mechanism in place that is functioning properly through which customers can submit a complaint online and the Board has the ability to respond to complaints electronically.

Airus' surreply to OCA's reply (Filed on March 16, 2015) (Larry)

The important issue of intercarrier compensation reform is not mentioned in OCA's proposed steps and is a glaring and critical omission that should be rectified.

Requiring Iowa rural LECs to provide direct interconnection for the termination of long-distance traffic on a non-discriminatory basis further mitigates the financial incentives that can lead to rural call completion problems, and should be incorporated into the proposed long-term solutions.

Airus notes in its surreply that OCA did not find flaws in and largely ignores the guideline framework and makes no attempt to show its proposal satisfies any of the guidelines. OCA continues to make vague and unsupported statements in an attempt

to support its proposed solutions by stating how its solutions increase understanding and accountability and are in the public interest. OCA demands that Airus support its suggestions and Airus is asking the OCA to do the same.

#### **IV. Proposed Long-Term Solutions and Responses**

##### **A. Windstream's Proposed Long-Term Solutions.** (Filed on April 27, 2015) (Larry)

Windstream states that no further call completion problems have been reported by Ms. Frahm and that she remains on an OOT network provided by Verizon.

Windstream also notes the Board's January 6, 2015, order directs Windstream to address how it provides information to customers on how to most effectively report call completion problems, so customers may report and have their call completion problems addressed much more quickly and effectively than in the past. Windstream says it has systems in place for customers to report problems by calling the customer service number on their bills, by email, by calling corporate headquarters, emailing Windstream personnel and other ways. Dispute resolution provisions are posted online in Windstream's statement of terms and conditions as well as in applicable tariffs. Windstream continues by saying if they receive a report of a call completion failure, it works with the customer to promptly identify the cause of the call failure by testing systems that may be linked to the failure. When necessary, Windstream will remove a downstream carrier from routing until the carrier demonstrates its ability to reliably complete calls.

Windstream says that both the Board and OCA know that Windstream and the FCC's Enforcement Bureau entered into a Consent Decree on February 20, 2014. Windstream urges that the "solutions" that are ultimately adopted in this proceeding be uniformly applicable to all carriers and not just to the participants in this and other rural call completion cases. Rural call completion problems are an industry-wide problem and should have an industry-wide solution uniformly applicable to all carriers. Windstream urges the Board to initiate a rule-making proceeding in which all interested companies can participate, and the rules adopted would be applicable industrywide.

With respect to OCA's proposed nine concrete steps, Windstream says that OCA deserves credit for initiating a proposal to find solutions. Windstream continues by saying that the OCA's proposed steps suffer from many flaws which have been illustrated by Windstream and other carriers in previous comments and are further discussed below.

##### **1. Managing Downstream Carriers**

In response to comments that OCA's proposed Step 1 "acknowledging responsibility for downstream carriers" is not concrete, OCA combined Steps 1 and 6 in its

February 16, 2015, report. Windstream continues by saying that Step 6 provides more specificity, but it goes into too much detail and, if adopted, would result in the Board micro-managing all companies' operations. It is the Board's role to regulate and to not operate public utilities. Each company should exercise its own due diligence of downstream carriers with which it contracts, and each company should determine for itself the nature and extent of due diligence that is necessary, considering the company's market area, technology and experience with downstream carriers. Step 6 should not be viewed as a cure for all conditions.

Windstream says that the January 2015 version of the ATIS Section 5, "best practices for management of underlying carrier networks", is a very useful tool and guideline for managing downstream carriers without imposing mandatory requirements. Windstream says that each company should be encouraged to use the guidelines to define the responsibilities of downstream carriers in their contracts. Each company should determine for itself which procedures it needs to adopt to provide reliable telecommunications services.

2. Maintain a List of Downstream Carriers with the Board

This proposal has many problems. First, unless the requirement is applicable to all carriers, the Board won't have a complete list of the downstream carriers. Second, the identity of a company's downstream carriers has proprietary value to the company, and companies should not be compelled to disclose publicly its proprietary information. Third, it imposes an administrative burden on companies and does nothing to prevent call completion failures.

If the Board wants to have a list of all downstream carriers doing business in Iowa, the most effective way to accomplish this is to require each company to register with the Board before the company is authorized to carry calls. Using this method would provide the most complete record of downstream providers and would be competitively neutral by not requiring carriers to identify their downstream carriers.

3. Reduce the Number of Downstream Carriers in a Call Path

Windstream notes that OCA has suggested that the reduction in downstream carriers be done in a responsible way. Windstream agrees it is desirable to limit the number of downstream carriers, and where that can be done in a responsible manner, Windstream commits to do so. Windstream also says that not all calls can be completed by one or two downstream carriers and having backup carriers may actually help rather than hinder the completion of calls.

4. Transparency in Downstream Carriers

Windstream says that OCA suggests that in call completion investigations, carriers should be required to disclose to OCA and the Board the identity of downstream carriers and the contracts between them. Windstream continues by saying the FCC

has a similar requirement that was adopted by rule, but it requires only that the downstream carriers be identified and not that the contracts be produced. Some contracts have confidentiality clauses that do not permit a carrier to disclose the identity of the downstream carrier or the terms of the contract without approval of the other party.

Windstream agrees that finding the root of a call failure will require the identity of downstream carriers to be disclosed and to the extent contractual provisions prevent disclosure of the identity of downstream providers they are an impediment to an effective investigation. Windstream commits that it will review its contracts with downstream carriers, and if such provisions are contained in the contracts, Windstream will attempt to negotiate them out of the contract when the contract renews.

5. Participate in ATIS Work

Windstream recognizes the good work of ATIS in setting industry standards in its *Intercarrier Call Completion/Call Termination Handbook*. Windstream has not participated directly in ATIS' work, but is aware of it and follows the work closely. Windstream contends it is inappropriate for the Board to order any company to spend its resources in any particular industry activity. Windstream continues by stating that ATIS' good work to date has been accomplished without direct participation of Windstream, and there is no reason to think that the participation of every company under Board jurisdiction is required in order to produce equally good work. Windstream commits that it will follow the work of ATIS, review its recommendations carefully and consider implementation of them in Windstream's operations. Windstream will decide for itself whether its participation in ATIS' work is necessary and appropriate for Windstream. It should not be mandated by the Board.

6. Exercise Responsibility Over Downstream Carriers

This step was discussed with Step 1 above.

7. Provide Copies of Iowa Data to Board

Windstream states that they have previously resisted this step as being an unnecessary administrative burden. Windstream now believes it has developed a system for extracting Iowa-specific data from its FCC reports and Windstream can provide the Iowa-specific data to the Board on a confidential basis.

Windstream described the three principal performance metrics established pursuant to the Consent Decree in its December 16, 2014, report and repeats them again.

- a. Network Effectiveness Ratio (NER). This metric expresses the ability of the network to deliver calls to the far-end terminal and the relationship between the number of seizures and the sum of

the number of seizures resulting in either an answer message, or a user busy, or a ring no answer, or in the case of ISDN a terminal rejection/unavailability. This information is used to help gain an understanding as to why calls are not answered or reaching their destination. Windstream has established a performance rate metric of 90 percent for NER and uses this metric to manage intermediate carriers.

- b. Call Answer Rate (CAR). The car is determined by dividing the number of calls answered by the number of calls attempted and is used to measure network quality and call success rates. Windstream has established a performance metric of 60 perecent for CAR.
- c. Trouble Tickets per Million Minutes of Use (TT/MM). Intermediate providers are measured according to the industry standard metric of Trouble Tickets per Million Minutes (TT/MM). If an intermediate provider's trouble ticket count exceeds acceptable limits of 2 TT/MM in any 30 day period, the carrier may be removed from routing for the affected area until testing and re-certification have been completed. This metric is not formally required by the Consent Decree and is a management tool used by Windstream to provide additional insight into quality issues that should be addressed more frequently than through a monthly review process.

To comply with the terms of the Consent Decree, a standardized report is provided to Windstream's compliance officer monthly, and a quarterly report is submitted to the FCC. For each Operating Company Number (OCN), Windstream's quarterly report to the FCC contains the following information:

For each rural OCN:

- The OCN
- The state
- The number of interstate call attempts
- The number of interstate call attempts that were answered
- The number of interstate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number
- The number of intrastate call attempts
- The number of intrastate call attempts that were answered
- The number of intrastate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number

For nonrural OCNs in the aggregate:

- The number of interstate call attempts
- The number of interstate call attempts that were answered
- The number of interstate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number
- The number of intrastate call attempts
- The number of intrastate call attempts that were answered
- The number of intrastate call attempts that were not answered, reported separately for call attempts signaled as busy, ring no answer, or unassigned number

If the intermediate provider fails to meet the applicable performance metrics, it is placed on an exception report. After review of the compiled data and exception reports, an intermediate carrier may be removed from routing for the affected OCN. When an intermediate provider is removed from routing, it must be tested and re-certified before being placed back in service for Windstream. Since entry of the Consent Decree, Windstream has sent one remedial notice to an intermediate carrier, but it has not had to remove an intermediate carrier from routing in Iowa.

These performance metrics were established by Windstream and approved by the FCC as a means to track Windstream's compliance with the requirements of the FCC Consent Decree. Windstream says the Board has no need to monitor Windstream's compliance with the FCC Consent Decree as the FCC is fully capable of doing that itself.

Windstream commits to extracting the Iowa-specific data from the reports it files with the FCC and providing them to the Board on a confidential basis. The Iowa-specific data will track Windstream's performance in Iowa over time and will serve as a useful guide.

#### 8. Keep Routing Tables Up-To-Date

Windstream notes that keeping routing tables up to date is integral to providing quality telecommunication service. Windstream does this on a regular basis and will continue doing so.

#### 9. Provide Progress Reports to the Board

Windstream says the Iowa-specific data extracted from the FCC reports will provide the Board with sufficient data to demonstrate Windstream's progress in resolving any call completion difficulties in Iowa. Windstream proposes to continue filing such reports to the Board on a quarterly basis for one year from the date this matter is concluded by final non-appealable order.

Windstream believes that the solutions proposed in this report will prove effective in minimizing rural call completion problems in Iowa.

**B. Airus' Proposed Long-Term Solutions.** (Filed on April 27, 2015)  
(Larry)

Airus notes that it has been working with the OCA via conference calls and emails to work towards a resolution and the proposed solutions may be modified. Airus continues to believe that call completion problems are an industry problem that should be addressed via industry-wide solutions.

When evaluating Airus' proposed solutions, it is important to review them in the context of Airus-specific circumstances.

- First, the calls that are the subject of these complaints occurred prior to Peerless Network, Inc. acquiring IntelPeer on November 30, 2013. The company's name was changed to Airus. Airus is not aware of any call completion problems, with Airus in the call path, being reported since the acquisition. Airus believes the successful track record for the past 16+ months shows improvement in this area.
- Second, IntelPeer (n/k/a Airus) did not "drop" the calls that are subject of these complaint proceedings. The causes of the call completion failure did not reside with IntelPeer's network, but failed at some point after the calls were handed off to a downstream carrier.
- Third, the complainants (Hancock and Frahm cases) have not experienced call completion problems in over two years. In both cases, IntelPeer was informed of the problems with downstream carriers and took measures to correct the issue and the problem was solved.
- Fourth, Airus has made a good-faith effort to cooperate in these proceedings and develop solutions that will address rural call completion issues. Airus has: (1) responded to discovery with as much information as it could reasonably provide given the passage of time and change in control of IntelPeer, (2) diligently investigated and considered the proposed "Nine Steps" proposed by the OCA, (3) proposed specific guidelines for evaluating solutions and commitments, (4) initiated meeting with OCA to refine and try to come to agreement with OCA on Airus' solutions and commitments, and (5) attended the recent Verizon-sponsored workshop on rural call completion problems that was held in Washington D.C.

Airus' proposed effective long-term solutions to call completion problems are based, in part, on OCA's proposed "Nine Concrete Steps Toward A Long-Term Solution." Airus says it is in good faith that they are making these commitments even though it did not

drop the call and knowing not all carriers involved in the call path are being asked to do the same. Airus could not agree to all of OCA's proposed nine steps for various reasons. Airus says OCA's solutions would make them responsible and accountable for the actions of other carriers and some of the solutions would have no benefit to resolving rural call completion problems.

Airus says the high cost of terminating telecommunications traffic to rural areas in Iowa and elsewhere has led to the proliferation of intermediate carriers. Airus continues by saying the high rural termination rates provide incentives for the rural local exchange carriers to decline the establishment of direct interconnections for exchange of toll traffic with companies like Airus and thereby diminishing the ability to reduce the number of intermediate carriers in the call path.

Airus continues by saying the use of intermediate carriers provide benefits to the industry as they are used for overflow/capacity issues, provide for network redundancy, and help where there might be gaps in coverage. The goal should not be to eliminate the use of intermediate carriers, but to help the industry work together to develop a quality, redundant network and to foster better inter-company communications as to prevent network failures.

The proposed solutions and commitments are Airus-specific and they do not address industry-wide issues such as intercarrier compensation and the rural local exchange carriers' refusals to establish direct interconnection. The solutions and commitments provided by Airus are divided into three categories.

- Communications/Reporting

Airus says it has proven procedures that it believes will help resolve and quickly address rural call completion problems. These include Airus providing contact information for trouble reporting on the Airus website, responding to the OCA and Board on a timely basis when information is requested, and taking action such as removing downstream carriers from routing when a problem arises.

Airus says that it will within 30 days of a final order in the proceedings commit to developing and implementing a "call completion action plan". The plan at a minimum will include a rural call completion response team that will be assigned to quickly and efficiently investigate and resolve reported rural call completion problems. A compliance officer will be responsible for directing the response team and responding to the complainant in a timely fashion. Specific deadlines will be set to ensure that the response team resolves the problem as quickly as possible. The plan will include specific guidelines on how to respond to reported problems and a record retention policy to ensure that relevant information is kept in the normal course of business should information be requested by a regulatory/governmental body. Airus says that it will do upgrades to its website to streamline reporting of rural call completion complaints.

Airus commits to submitting quarterly reports on a confidential basis that at a minimum will contain a description of the progress being made to fulfil its commitments, the details of any rural call completion problems in Iowa reported to Airus since the last report and the steps taken to resolve any such reported problems. Airus says that it will provide the reports for a one-year period, after which time the progress reporting requirement will sunset unless the Board affirmatively renews the requirement for good cause.

Airus commits to continue to cooperate with and provide timely information to the Board and OCA when investigating a rural call completion complaint along with assisting in root cause analysis and identification of carriers in the call path.

- Network Management

Airus makes commitments to ensure a properly-functioning network and to help minimize the chance that Airus' network is not the cause of the dropped call. Airus says it will have a properly-designed and properly-functioning network and mechanisms to ensure that all calls it receives are timely completed or released back to the upstream carrier. Airus says it will have properly-designed and properly-functioning mechanisms in place to detect and control looping. Airus says it will continue to conduct standardized testing routines and continue to hold vendor performance meetings. Routing tables will be kept up-to-date through the Local Exchange Routing Guide (LERG). Airus says it will monitor ATIS standards and implement those standards when consistent with Airus' network policies. Airus will continue to seek direct end office interconnection with rural local exchange carriers in Iowa for the purposes of limiting the number of intermediate carriers in call paths.

- Downstream Carrier Management

Airus makes commitments to manage the performance of downstream carriers by using interoperability testing at turn-up to minimize system limitations and interoperability issues. Airus will continue to use internal "report cards" for vendors in order to assist in identifying downstream carriers that may need to improve performance. Airus will continue to take quick action to temporarily remove downstream carriers out of the call route for poor performance until the problem is resolved if taking that carrier out of route would enhance performance.

Within 90 days of a final order in these proceedings, Airus will develop an addendum to vendor contracts that define commitments to standards, including commitments from downstream carriers that they will release calls back on a timely basis as envisioned by ATIS § 5.3.

Airus will include confidentiality agreements with vendor provisions stating that Airus is permitted to provide the identity of the vendor to the Board in response to a Board inquiry involving a complaint.

Airus says that it makes these commitments based on the premise that OCA will not seek nor will the Board impose financial penalties on Airus for rural call completion problems that have occurred in relation to these complaint proceedings or call problems that may occur in the future when Airus is abiding by these commitments. Airus continues by saying the commitments should go a long way in minimizing rural call completion problems as well as quickly resolving such a problem should it arise. Airus also says that it is impossible to guarantee that calls will complete 100 percent of the time.

**C. OCA's Reply to Windstream and Airus' Proposed Long-Term Solutions.** (Filed on May 26, 2015) (Tara)

OCA's response to Windstream's and Airus' proposed solutions focuses directly on the need to correct the poor management of downstream carriers that resulted in the call failures. OCA noted that the identification of poor management of downstream carriers as the source of the call failures was recently highlighted in the workshop hosted by Verizon pursuant to its consent decree with the FCC. (Rural Call Completion Industry Workshop, see especially remarks of Penn Pfautz, Director of Access Management, AT&T, <http://publicpolicy.verizon.com/tag/Rural+Call+Completion>, first panel 1:11:45-1:24:12.)

OCA's response compares the solutions proposed by the companies with the solutions proposed by OCA and evaluates the extent to which the companies are willing to consider and implement the solutions proposed by OCA.

OCA noted that the filings from Windstream and Airus dated April 27, 2015, exhibit considerable agreement with OCA that solutions are needed and on what the solutions must be. OCA also noted that it has had productive discussions with Airus and Windstream and OCA is willing to continue these discussions. OCA further noted that although the parties are having discussions this does not justify a delay in the proceedings as rural call completion issues can be life-threatening and need to be addressed sooner rather than later.

If the Board determines a rule-making proceeding is appropriate, OCA opposes any delays on commitments from the companies in the meantime. OCA understands that each of the companies (or its predecessor) has failed to provide adequate quality of service as required by Iowa Code § 476.3 (2015) and 199 IAC 22.5(1). Furthermore, OCA stated that the public interest requires appropriate corrective action at this time. OCA stated that it may be appropriate in these dockets for the presiding officer to issue notices that the companies have violated their obligations under Iowa Code § 476.3 (2015) and 199 IAC 22.5(1), thus permitting consideration of civil penalties in future dockets should violations of these same provisions recur. (Iowa Code § 476.51 (2015)). According to OCA, the possibility that other companies not before the Board in these dockets may also have failed to provide adequate service quality is no reason to delay this matter. OCA also supports a rule-making proceeding.

OCA noted that each of the companies has either implemented or offered to implement at least some of the elements. The following is a list of the elements each of the companies has thus far implemented or offered to implement:

1. Managing Downstream Carriers

OCA combined Steps 1 and 6 which are discussed below.

2. Maintain a List of Downstream Carriers Currently Being Used to Carry Iowa Traffic

OCA stated its proposed Step 2 is the one step on which the companies have to date exhibited little willingness to agree. OCA observed none of the companies offers a persuasive response to OCA's observation that the call failures have largely been attributable to the shadowy existence of intermediate carriers that did not and could not carry the calls, but that nevertheless were engaged to do so. OCA also noted none of the companies offers a persuasive response to its observation that compliance with proposed Step 2 would cost virtually nothing. OCA clarified that it does not propose that upstream carriers maintain on file with the Board a list of call paths. OCA's suggested that upstream carriers maintain on file with the Board a list of the downstream carriers with which they have contracts. This list should not be changing daily. OCA explained that if the list is changing daily then the Board may reasonably question whether the upstream carrier is performing adequate due diligence and testing in the engagement of downstream carriers.

OCA believes that its proposed oversight would potentially go a long way toward ensuring that upstream carriers choose their downstream carriers carefully. OCA stated that it is not suggesting that the Board require each downstream carrier to register with the Board before the company is authorized to carry calls. OCA noted that Windstream's suggestion misses the point. OCA reiterated that there is a need for upstream carriers to act responsibly when choosing downstream carriers. OCA stated that requiring upstream carriers to identify their downstream carriers is a key part of holding them responsible for the choices they make.

OCA continues to urge that the carriers' information for the downstream carriers be public.

3. Reduce the Number of Intermediate Carriers in the Call Paths

OCA noted that there is consensus that reducing the number of intermediate providers in the call paths prevents call failures. OCA noted that Windstream agrees it is desirable to limit the number of downstream carriers and commits to doing so in a responsible manner.

OCA noted that Airus has already engaged in an effort to reduce the number of intermediate carriers and will continue the effort because it believes that this is the best way to address the problems.

4. Promote Transparency in the Use of Downstream Carriers

OCA stated that the companies are agreeable to seeking to remove from their contracts with intermediate carriers provisions that intend to limit their ability to disclose the contracts to the Board. OCA noted that any trade secrets and other legitimately confidential information in the contracts would be protected.

OCA noted that Windstream agrees that such provisions are an impediment to an effective investigation and Windstream commits that it will review its contracts with downstream carriers, and if such provisions are contained in the contracts it would attempt to negotiate them out of the contract when the contract renews.

OCA stated that Airus supports the proposal of transparency and will do what it can to insert appropriate language into a nondisclosure agreement.

5. Actively Participate in the Standard-Setting Work of the ATIS

OCA noted that Verizon will be making a written submission to the Next Generation Interconnection Interoperability Forum (NGIIF) of the Alliance for Telecommunications Industry Solutions (ATIS) recommending updates to the NGIIF Call Termination Handbook. These recommended updates are intended to document ideas, best practices, and recommendations discussed at the workshop Verizon hosted. The written materials provided by the moderator invite all others to reach out to NGIIF to obtain information on how they, too, can participate in the process of updating the Call Termination Handbook.

OCA stated that Windstream and Airus do not offer commitments to participate in the work at ATIS.

OCA stated that Airus indicated that such participation may entail costs. OCA noted that while Windstream recognizes the good work at ATIS and states it follows the work closely, Windstream argues the Board should not direct any company to participate in any particular industry work.

OCA maintains that widespread active participation in the standard-setting work at ATIS can contribute substantially to restoring the reliability of the network.

6. Exercise Responsibility Over Downstream Carriers

OCA explains in its February 16, 2015, filing that it has combined Steps 1 and 6 in order to meet objections that a general acknowledgement of responsibility for the performance of downstream carriers is not sufficiently concrete. OCA noted that the 13 elements of Step 6 (listed in this document) are specific enough to target what has

been causing the problems, yet general enough to leave with each company the responsibility to work out the details of implementation. OCA noted that if a company has gone beyond a particular element, it has, of course, met it.

OCA stated that after reviewing the filings and discussing the matter with Airus and Windstream, OCA understands that not all of the companies are in a position to commit at this time to implementing all of the elements it proposed. However, each of the companies has either implemented or offered to implement at least some of the elements. OCA provided the following list of the elements each of the companies has thus far implemented or offered to implement:

*Element 1. Establish and conduct standardized testing routines.*

Windstream:

- OCA stated that Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

Airus:

- OCA noted that Airus [REDACTED]
- OCA stated that Airus will continue to conduct standardized testing routines.
- OCA indicated that Airus will continue to use interoperability testing at turn-up to minimize system limitations and interoperability issues.

*Element 2. Investigate on an ongoing basis whether downstream carriers have properly designed and properly functioning equipment, including properly designed and properly functioning software.*

Windstream:

- OCA noted that Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 3. Investigate on an ongoing basis whether downstream carriers have sufficient capacity in their switches and call paths to carry the traffic to the intended destinations.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 4. Require each downstream carrier on an ongoing basis to provide specific information regarding its system and the limitations of its system, including information regarding any difficulties its system may have interoperating with other systems using a different technology.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 5. Require each downstream carrier on an ongoing basis to provide specific information regarding any bandwidth or other capacity constraints that would prevent its system from completing calls to particular destinations at busy times.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 6. Require each downstream carrier to have properly designed and properly functioning alarms in its system so as to ensure immediate notice of any outages on its system.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 7. Require each downstream carrier to have properly designed and properly functioning mechanisms in place to ensure that the downstream carrier, if unable to complete a call, timely releases the call back to the upstream carrier (ATIS Handbook § 5.3).*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.
- OCA stated that according to Windstream [REDACTED]

Airus:

- OCA noted that Airus indicated it will develop an addendum to vendor contracts that defines commitments to standards, including commitments from downstream carriers that they will release calls back on a timely basis as envisioned by ATIS § 5.3.

*Element 8. Require each downstream carrier to have properly designed and properly functioning mechanisms in place to ensure that the downstream carrier, if making successive attempts to route the call through different lower-tiered downstream carriers, timely passes the call to a second (or third or fourth) lower-tiered downstream carrier if a first (or second or third) lower-tiered downstream carrier cannot complete it.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 9. Require each downstream carrier to have properly designed and properly functioning mechanisms in place to detect and control looping, including the use of hop counters or other equivalent mechanisms that alert a carrier to the presence of a loop (ATIS Handbook § 4.1.3).*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.

- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 10. Establish direct measures of quality and require downstream carriers to meet them (ATIS Handbook, § 5.6 and Table 2).*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.
- OCA stated that according to Windstream [REDACTED]  
[REDACTED]  
[REDACTED]
- OCA noted that Windstream indicated that it [REDACTED]  
[REDACTED]
- OCA observed that Windstream is using three principal performance metrics: network effectiveness ratio, call answer rate and trouble tickets per million minutes of use in order to comply with its consent decree with the FCC.

Airus:

- OCA observed that Airus [REDACTED]  
[REDACTED]  
[REDACTED]
- OCA noted that Airus commits that it will continue to use internal 'report cards' for vendors in order to assist in identifying downstream carriers that may need to improve performance.
- OCA also noted that Airus will develop an addendum to vendor contracts that defines commitments to standards, including commitments from downstream carriers that they will release calls back on a timely basis as envisioned by ATIS § 5.3.

*Element 11. Establish and implement appropriate sanctions for intermediate carriers that fail to meet standards.*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.

Airus:

- OCA noted that Airus [REDACTED]
- OCA also noted that Airus commits to developing and implementing a call completion action plan. This plan will include, at a minimum specific guidelines on how to respond to reported problems.
- OCA indicated that according to Airus, it will continue to take quick action to temporarily remove downstream carriers out of the call route for poor performance (e.g., if such downstream carrier was the cause of a dropped call) until the problem is resolved if taking that carrier out of route would enhance performance.

*Element 12. Require downstream carriers to manage lower-tiered downstream carriers and to hold lower-tiered downstream carriers to the same standards to which they themselves are held (ATIS Handbook § 5.8).*

Windstream:

- Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.
- OCA noted that Windstream indicated that each company should exercise its own due diligence of the downstream carriers with which it contracts.

*Element 13. Define the responsibilities of downstream carriers in an agreement (ATIS Handbook § 5 introduction).*

Windstream:

- OCA stated that Windstream does not disagree with [OCA's] 13 elements and states that Windstream substantially complies with each of the points.

Airus:

- OCA noted that according to Airus, it will develop an addendum to vendor contracts that defines commitments to standards, including commitments from downstream carriers that they will release calls back on a timely basis as envisioned by ATIS § 5.3.

OCA stated that each company, as a part of its commitments, should be willing to agree to certify annually which of the elements it has implemented. OCA indicated that over time, companies will hopefully be able to supply a complete certification. Also, OCA stated that commitments should remain in effect until such time as the Board determines they are no longer needed, or until such time as the Board

implements a rule with similar requirements of general applicability. OCA noted that a similar process was recently adopted at 47 C.F.R. § 12.4 with respect to the reliability of the services of 911 providers. OCA stated that if a company has implemented an alternative mechanism that accomplishes the objective of a particular element, the company should describe the mechanism it has implemented and explain how the mechanism meets the objective. OCA also stated that if a particular element does not apply to a particular company, the company should explain why.

OCA believes that its 13 proposed elements are proactive in the sense that they are designed to restore network reliability to its former state, in which the facilities carrying the calls were engineered and maintained in such a way as to prevent the call completion failures from occurring in the first place. OCA also indicated that these elements are designed to work in tandem with the data collection and analysis now occurring pursuant to FCC rules.

Companies participating in the Verizon workshop described their processes for review and analysis of network performance data, including network effectiveness ratio (NER) and answer service ratio (ASR) or call answer rate (CAR), and for identification of negative spikes at particular operating company numbers (OCNs) that may require investigation. OCA noted that Windstream looks for an NER of 90 percent and an ASR or CAR of 60 percent.

*7. Provide Copies of the Iowa Portion of the Federal Data and the FCC's Analysis of the Iowa Data to the Board and OCA.*

OCA noted that Windstream is willing to provide the Board with the Iowa-specific data included in the FCC reports, subject to confidentiality concerns.

OCA stated the FCC data rules do not currently extend to intermediate carriers, such as Airus. However, Airus has committed, that if and when the federal rules do apply to Airus, it will providing copies of the Iowa portion of the federal data and the FCC's analysis of the Iowa data to the Board and OCA.

OCA stated that companies should provide, in addition to the Iowa-specific rural data, the aggregated national non-rural data.

*8. Keep Routing Tables Up-To-Date.*

OCA noted that there is consensus that routing tables must be kept up-to-date. OCA noted Windstream acknowledges that keeping routing tables up-to-date is integral to providing quality telecommunication service and states that Windstream indicates it does so on a regular basis and will continue to do so. Also, OCA noted that Airus committed that it will continue to keep routing tables up-to-date using the LERG.

*9. Provide Periodic Progress Reports to the Board on Implementation.*

OCA stated that Windstream argues that the FCC data will be a sufficient report. Airus offers a commitment to provide confidential quarterly progress reports for one year.

OCA continues to urge that each company provide appropriate progress reports on each of the commitments it makes. The consent decrees in the FCC enforcement actions against Windstream, Matrix and Verizon required compliance reports 90 or 120 days, 12 months, 24 months and 36 months after the effective dates of the consent decrees.