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STATE OF IOWA  
DEPARTMENT OF COMMERCE  
BEFORE THE IOWA UTILITIES BOARD

FILED WITH  
Executive Secretary  
February 19, 2016  
IOWA UTILITIES BOARD

IN RE:  THE COMPLAINT OF SUTHERLAND MERCY MEDICAL CLINIC	DOCKET NO. FCU-2014-0007 (C-2014-0005)
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## STIPULATION OF FACTS

Pursuant to the order of the Administrative Law Judge issued in this docket on January 7, 2016, the Office of Consumer Advocate (“OCA”) hereby files this Stipulation of Facts on behalf of itself, West Iowa Telephone Company d/b/a WesTel Systems (“WesTel”), Qwest Corporation d/b/a CenturyLink QC (“CenturyLink”), and Comcast Phone of Iowa, LLC (“Comcast”). The parties have agreed to the following facts in this docket:

### General Facts

1. On January 28, 2014, Jason Wilbur filed a complaint on behalf of Sutherland Mercy Medical Clinic (“Sutherland”) regarding long-distance calls that were failing to complete.
2. The following telecommunications companies were involved in the handling of the calls and have participated in the investigation of the complaint (although other companies were involved in the handling of the complaint as well):
  - a. WesTel – Sutherland’s local exchange carrier;
  - b. CenturyLink – Sutherland’s long distance carrier;
  - c. Comcast – an intermediate long-distance carrier; and
  - d. Iowa Network Services (“INS”) – the provider of centralized equal access service throughout the state.
3. INS operated both the originating and terminating tandem on the calls in question. When INS is on both the originating and terminating tandem, calls are transmitted as follows:
  - a. The initiating party places the call with its local exchange server (in this case, WesTel).
  - b. The local exchange server routes the call to the INS originating tandem.

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- c. INS routes the call to the originating caller's long-distance carrier (in this case, CenturyLink).
  - d. Depending on routing tables, the long-distance carrier routes the call to certain underlying carriers (in this case Comcast).
  - e. Through the underlying carriers, the call routes to the INS terminating tandem.
  - f. INS routes the call to the terminating party's local exchange carrier.
4. In this case, INS received the calls from WesTel and routed them to CenturyLink. CenturyLink routed the calls to Comcast. Comcast routed the calls to additional underlying carriers. INS did not receive the calls at the terminating tandem, however, an answer signal was sent to WesTel for each call indicating that the calls had been completed.

## WesTel's Investigation

5. A WesTel technician ran a call records report for the time period contained in the complaint dated January 28, 2014. WesTel included those calls to { } and { } in its report even though no trouble with those calls was mentioned in the complaint. According to WesTel's central office switch manufacturer, Metaswitch, the following calls were reviewed:
- a. On January 28, 2014 at 10:03 a.m., a call from { } to { }. The call routed out of the Integrated Services Digital Network User Part (ISUP) point code 222-1-1 (which is a unique identifier for INS). The far end switch sent ISUP address complete and ISUP call progress to WesTel. The call was not answered by the far end after 39 seconds and the caller at { } hung up. WesTel reported nothing was wrong with this call except no one answered the call at telephone number { }.
  - b. On January 28, 2014 at 10:09 a.m., a call from { } to { }. The call routed out of ISUP point code 222-1-1. The call was answered by { } and five seconds later the call was released by { }. WesTel noted nothing was wrong with this call; the party at { } both answered the call and hung up to conclude the call.
  - c. On January 28, 2014 at 10:10 a.m., a call from { } to { }. The call routed out of ISUP point code 222-1-1. The call was answered by { }. Five seconds later the call was released by { }. WesTel stated nothing was wrong with this call; the party at { } both answered the call and hung up to conclude the call.
  - d. On January 28, 2014 at 10:11 a.m., a call from { } to { }. The call routed out of ISUP point code 222-1-1. The call was answered by { }. Eight seconds later the call was released by { }. WesTel reported nothing was wrong with this call; the party at { } both answered the call and hung up to conclude the call.

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- e. On January 28, 2014 at 10:22 a.m., a call from { [REDACTED] } to { [REDACTED] }. The call routed out of ISUP point code 222-1-1. The far end switch sent ISUP address complete and ISUP call progress. The call was not answered by the far end after 29 seconds and the caller { [REDACTED] } hung up. WesTel stated nothing was wrong with this call except the far end { [REDACTED] } did not answer.
6. For the three calls answered, voice path cut through in both directions, indicating that there was a route for the calls to go through. WesTel stated all calls appear to have been routed properly by its switch. Based on the call traces, WesTel concluded that the problem was with the long-distance carrier. WesTel stated that from its review, the problem appears to have been resolved.

## INS' Investigation

7. INS technicians pulled the call log data from its Signaling System No. 7 (SS7) network that correlates to the call trace information provided by WesTel. According to INS, the SS7 provides call data for both unsuccessful and successful call attempts. INS provided the following information from the call trace data:
  - a. On January 28, 2014 at 10:03 a.m., a call from { [REDACTED] } to { [REDACTED] }. Call origination was received from ISUP point code 222-32-0 (a unique identifier for INS) at an INS tandem (point code 222-1-1). The INS tandem routed the call to the long-distance carrier (point code 1-16-134 (a unique identifier for CenturyLink)). No terminating call attempt was received at the INS terminating tandem (point code 222-2-1). The call shows as not answered with no conversation time.
  - b. On January 28, 2014 at 10:09 a.m., a call from { [REDACTED] } to { [REDACTED] }. Call origination was received from ISUP point code 222-32-0 at an INS tandem (point code 222-1-1). The INS tandem routed the call to CenturyLink (point code 1-16-134). No terminating call attempt was received at the INS terminating tandem (point code 222-2-1). Answer supervision was received and relayed and indicated that there were five seconds of conversation time. However, the call could not have been answered as it was not offered to the terminating tandem from the long-distance carrier.
  - c. On January 28, 2014, at 10:10 a.m., a call from { [REDACTED] } to { [REDACTED] }. Call origination was received from ISUP point code 222-32-0 at an INS tandem (point code 222-1-1). The INS tandem routed the call to CenturyLink (point code 1-16-134). No terminating call attempt was received at INS terminating tandem (point code 222-2-1). Answer supervision was relayed indicating that there were five seconds of conversation time. However, the call

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could not have been answered as it was not offered to the terminating tandem from the long-distance carrier.

- d. On January 28, 2014 at 10:11 a.m., a call from { [REDACTED] } to { [REDACTED] }. Call origination was received from ISUP point code 222-32-0 at an INS tandem (point code 222-1-1). The INS tandem routed the call to CenturyLink (point code 1-16-134). No terminating call attempt was received at the INS terminating tandem (point code 222-2-1). Answer supervision was relayed indicating that there was eight seconds of conversation time. However, the call could not have been answered as it was not offered to the terminating tandem from the long-distance carrier.
  - e. On January 28, 2014 at 10:22 a.m., a call from { [REDACTED] } to { [REDACTED] } was received from ISUP point code 222-32-0 at an INS tandem (point code 222-1-1). The INS tandem routed the call to CenturyLink (point code 1-16-134). No terminating call attempt was received at the INS terminating tandem (point code 222-2-1). The call shows as not answered.
8. For each of the failed calls, the long-distance carrier did not signal to the destination telephone company through the INS terminating access tandem to complete the connection. Additionally, answer supervision was received by the INS originating tandem on several calls that cannot be valid as a terminating call attempt because the calls were never received by an INS terminating tandem. Answer supervision, which indicates that a call has been completed and answered, should only come from the terminating carrier's end office. Based on its investigation, INS concluded that the problem was with the long-distance carrier.

## CenturyLink's Investigation

9. CenturyLink stated it followed its established process to investigate this issue, which began with a CenturyLink technician creating a trouble ticket to investigate the issue. The technician determined that the routing of the calls was the issue. At the time of the calls in question, CenturyLink's routing tables indicate that Comcast was the underlying carrier.
10. CenturyLink's technician removed Comcast from the routing and referred the issue to Comcast for investigation. Following the removal of Comcast from the routing, CenturyLink made a test call to { [REDACTED] } to ensure the routing change fixed the issue. CenturyLink reported the test call completed without issue.

## Comcast's Investigation

11. Comcast investigated the calls in question by examining Call Detail Records that show the existence of a call and the downstream carrier that the call was sent to. For the call at 10:11am on January 28, 2014, Comcast determined that it handed the call to { [REDACTED] }. Comcast's records show that there was a substantial post-dial delay somewhere

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downstream from Comcast, but that the call was completed with a short connection time. For the call at 10:22am on January 28, 2014, Comcast determined that it presented the call to { ██████████ }, but received a 503 SIP response code indicating that the number was valid but that the carrier was unable to complete the call. Comcast then handed the call to { ██████████ }. Comcast's records also show that the route was accepted and show a short post-dial delay for that call, but show that that call was completed with a very short connection time. Comcast concluded that the problem was with downstream carriers after Comcast passed the calls to additional carriers.

## Conclusions

12. After Comcast handed the calls to another intermediate carrier, the call routing beyond { ██████████ } is lost. It is unknown who handled the calls after that point. It is also unknown who sent the answering signal to INS indicating that the calls had reached their destination. Given the complexity of call routing and the timeframes for which carriers maintained records at the time of this complaint, these facts are not able to be determined in this investigation.
13. CenturyLink is complying with FCC regulations regarding call completion. The FCC excluded intermediate carriers, such as Comcast, from requirements of its call completion regulations. Local exchange carriers, such as WesTel, and equal access providers, such as INS, were not included in the FCC's consideration of call completion problems as the main source identified for the problems was long-distance routing.

Respectfully submitted,

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