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**Andrew Schriener**  
State Legislative Affairs Director



January 19, 2022

Mr. Steven Kahl  
Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard Avenue, 12<sup>th</sup> Floor  
Bismarck, ND 58505-0480

**Re: In the Matter of CenturyLink QC's Petition for Elimination of the Qwest  
Performance Assurance Plan and Performance Indicator Definitions  
Case No. PU-22-20**

Dear Mr. Kahl:

Enclosed are CenturyLink QC's Responses to Data Request 1 regarding the above-referenced matter.

Sincerely,

A handwritten signature in black ink that reads "Andrew Schriener".

Andrew Schriener  
State Legislative Affairs Director

AS/bardm

Enclosures

cc: Victor Schock (via email)  
Patrick Fahn (via email)

33 PU-22-20 Filed 06/24/2022 Pages: 83  
Exhibit 3 – CenturyLink QC's responses to staff's data requests  
Qwest Corporation

8 PU-22-20 Filed 01/19/2022 Pages: 83  
Additional Information - electronic only  
Qwest Corporation  
Andrew Schriener



**CERTIFICATE OF SERVICE**

I hereby certify that on this 19th day of January, 2022, the foregoing response letter was served upon the following party:

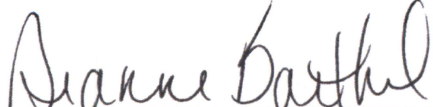
Mr. Steven Kahl  
Executive Secretary  
North Dakota Public Service Commission  
600 East Boulevard Avenue, 12<sup>th</sup> Floor  
Bismarck, ND 58505-0480

and copies sent electronically, addressed to the following:

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Dianne Barthel

**STATE OF NORTH DAKOTA  
BEFORE THE PUBLIC SERVICE COMMISSION**

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**In the Matter of CenturyLink QC's Petition for      Docket No. PU-22-20  
Elimination of the Qwest Performance Assurance  
Plan and Performance Indicator Definitions**

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**CENTURYLINK QC'S RESPONSES TO DATA REQUEST 1**

Qwest Corporation dba CenturyLink QC ("CenturyLink"), for its response to the North Dakota Public Service Commission Data Request 1, states as follows:

**1.1    Please explain the rows of Exhibit 1 to your application. What does Email receipt vs Email read vs Repository receipt mean?**

**Response:**

The rows in Exhibit 1 contain a list of all CLECs that were sent the CMP notice advising them of CenturyLink's intent to file for PID/PAP elimination. Any CLEC who has voluntarily opted into the PID/PAP is part of the CMP process. The CLEC decides whether its contact preference is by electronic email, facsimile, or U.S. mail. When any CMP notice is sent, for any purpose, the system tracks each CLEC on file that received a notice and by which category method.

The description/meaning of the last three columns of this list reflect the permissions the CLECs have allowed CenturyLink to see regarding their actions toward the CMP notice. Many CLECs do not set their permissions for us to view, so these last three columns do not reflect the CLECs actual action but are part of our CMP notice tracking platform. If the CLECs allow us visibility, the following describes their action:

1. The 'Email receipt' column will populate an icon to advise the CLEC received the notice.
2. The 'Email read' column will populate an icon to advise the CLEC has read the notice.
3. The 'Repository Receipt' column will populate an icon to advise the CLEC utilized an alternative website link to review the notice instead of the preferred method on record.

This information can change over time. This view provided was taken shortly after the notice was sent.

**1.2 Please provide a copy of Qwest's currently effective PIDs and PAP for North Dakota.**

**Response:**

See Attachment 1.2.

**1.3 Has Qwest made a similar filing in any states other than South Dakota, Iowa or Nebraska? If so, please provide the docket number and status of those filings.**

**Response:**

Wyoming was filed November 12, 2021 with approval on December 30, 2021 in Docket No. 70000-173 7-TA-21.

Montana was filed on July 13, 2021 with approval pending in Docket No. 2021.07.102

**1.4 Your spreadsheets detailing orders from CLECs is not legible in your application. Please provide a count by year of CLEC orders by service type from 2014 through 2021.**

**Response:**

See Attachment 1.4.

**1.5 Please provide a list of CLECs operating in North Dakota that were notified of Qwest's intention to remove the PIDs and PAP.**

**Response:**

See response to Data Request No. 1.1 and Exhibit 1 for the list of the CMP notification sent to all CLECs in North Dakota.

**1.6 Please provide a list of interconnection agreements (and the ND docket approving them) that are currently active.**

**Response:**

This information would be burdensome to develop and unnecessary for this docket. No additional ICA filings are required for PIDs and PAP approvals by the state. Exhibit K states:

15.2.1 Subsequent changes to the PAP approved by the Commission will be incorporated into individual interconnection agreements that contain the PAP as soon as the effective date of the Commission order, and without further Amendment to those Agreements.

Not all CLECs opt into the PIDs and PAPs so it would be a manual process to identify each affected interconnection agreement.

**1.7 Will Qwest need FCC approval to remove the PIDs and PAP?**

**Response:**

No. The PIDs and PAP were voluntarily agreed to terms between Qwest/CenturyLink and the CLECs as described under Exhibit K, Section 1.1 and under Exhibit K, Section 18.0. This approach was approved by the commission.

**1.8 Is there a federal law or rule that would require Qwest to maintain the PIDs and PAP?**

**Response:**

No.

**1.9 If the request to eliminate the PIDs and PAP is denied, what would Qwest need in order to be compliant with the latest FCC orders?**

**Response:**

Lumen would have to engage in new, burdensome requirements. To remain compliant with the 2020 FCC Order, Lumen would need to:

**Externally:**

1. Revise and refile Exhibit B and Exhibit K with the Commission
2. Adjust all Exhibits language to include the competitive county requirements, refiling any updates over time.
3. Remove the products with associated timelines with only 1 remaining product (LIS)
4. Refile for elimination of Exhibit B and Exhibit K after 2/8/2023.

**Internally:**

1. Solution multiple data warehouse sources for county level identification.
2. Extensive re-coding and re-architecture of the PAP statistical processing.
3. Significant reprogramming of metrics code to remove products and services.
4. Resolve extremely low volume statistical issues to address parity calculations. Currently all monthly CLEC volume has a volume count of under 30, which is less than statistically valid. As volumes become closer to zero, instability becomes more extreme.

**1.10 Is there a requirement that the PIDs and PAP for a particular state matches the FCCs requirements, or is it permissible for a state to have more stringent standards and requirements?**

**Response:**

As responded in Data Request No. 1.8, there is no FCC requirement for the PIDs and PAP, which laid out the voluntary agreements approved by the state in connection with obtaining long distance authority under Section 271. The state role at this time is limited to its authority to review and approve interconnection agreements under Section 251.

**1.11 How is removal of the PIDs and PAP in the public interest for North Dakota?**

**Response:**

The two FCC UNE Forbearance Orders have already determined that the original intent of the wholesale product offerings are outdated and are no longer relevant to today's competitive environment. CLECs have raised no objection to this change.

**1.12 What are the metrics/products that will be contained within the PIDs and PAP following the most recent FCC orders?**

**Response:**

If we were not seeking PID/PAP elimination, the only product level metric remaining in the PID/PAP would be LIS Trunks statewide and other products in non-competitive counties. LIS Trunks are not a UNE product and were not unbundled network elements as part of the original 1996 FCC Telecommunications Act Order. There was only one order for them in 2021. For other services that remain in noncompetitive counties, there was a total of one order for any of those products.

If CenturyLink was not seeking PID/PAP elimination, the only non-product specific metrics remaining in the PID are as follows. Electronic Gateway

- Billing
- Database Updates
- Trunk Blocking
- Collocation

These metrics are in the PIDs but do not result in payments under the PAP.

**1.13 What is the required timeline for removal of each of the products and services that are being eliminated per the FCC order?**

**Response:**

See Attachment 1.13.

**1.14 Please explain how Qwest would be required to change the architecture of automated reporting processing if it were to comply with the FCCs order?**

**Response:**

In response to Data Request No. 1.9, CenturyLink identified the complexities of modifying its systems to maintain tracking and distinguish between counties. Such effort makes no sense given the very small number of orders that would be affected.


**1.15 Please provide a list of counties in North Dakota that were deemed competitive and open to forbearance in the FCC's October 2020 order.**

**Response:**

<u>State</u>	<u>County or county equivalent</u>
ND	Barnes County
ND	Burleigh County
ND	Cass County
ND	Grand Forks County
ND	Morton County
ND	Richland County
ND	Steele County
ND	Stutsman County
ND	Traill County

Dated this 19th of January, 2022.

QWEST CORPORATION DBA  
CENTURYLINK QC



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**Service Performance Indicator Definitions (PID)**

CenturyLink QC

**ICA Exhibit B – PID Version 10.1**

**QWEST CORPORATION DBA CENTURYLINK QC'S ("CENTURYLINK QC'S") SERVICE  
PERFORMANCE INDICATOR DEFINITIONS (PID)**

**PID Version 10.1**

**Introduction**

CenturyLink QC will report performance results for the service performance indicators defined herein. CenturyLink QC will report separate performance results associated with the services it provides to Competitive Local Exchange Carriers (CLECs) in aggregate (except as noted herein), to CLECs individually and, as applicable, to CenturyLink QC's retail customers in aggregate. Within these categories, performance results related to service provisioning and repair will be reported for the products listed in each definition. Reports for CLECs individually will be subject to agreements of confidentiality and/or nondisclosure.

# CenturyLink QC's Service Performance Indicator Definitions

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## Electronic Gateway Availability

### GA-1 – Gateway Availability – LSR

<b>Purpose:</b> Evaluates the quality of CLEC access to the gateway systems offered by CenturyLink QC for CLECs to submit LSRs and associated systems that facilitate access to the gateway(s), focusing on the extent they are actually available to CLECs.	
<b>Description:</b> GA-1-<Name of LSR Gateway or Associated System> <sup>NOTE 1:</sup> Measures the availability of the gateway interfaces through which CLECs process LSRs, and reports the percentage of Scheduled Availability Time the interface is available for view and/or input. <ul style="list-style-type: none"> <li>• Scheduled Up Time hours for preorder, order, and provisioning transactions are based on the currently published hours of availability found on the following website: <a href="http://www.centurylink.com/wholesale/cmp/ossHours.html">http://www.centurylink.com/wholesale/cmp/ossHours.html</a>.</li> <li>• Time Gateway is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.</li> <li>• Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.</li> <li>• Scheduled Down Time is time identified and communicated that the interface is not available due to maintenance and/or upgrade work. Notification of Scheduled Down Time for routine maintenance and/or upgrade work will be provided no less than 48 hours in advance.</li> <li>• An outage is a critical or serious loss of functionality, attributable to the specified gateway or component affecting CenturyLink QC's ability to serve its customers. An outage is determined by CenturyLink QC technicians through the use of verifiable data, collected from the affected customer(s) and/or from mechanized event management systems.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Percent
<b>Reporting Comparisons:</b> CLEC aggregate results	<b>Disaggregation Reporting:</b> Region-wide level.
<b>Formula:</b> $\left( \frac{\text{[Number of Hours and Minutes Gateway or system is Available to CLECs During Reporting Period]}}{\text{[Number of Hours and Minutes of Scheduled Availability Time During Reporting Period]}} \right) \times 100$	
<b>Exclusions:</b> None	
<b>Product Reporting:</b> Reported by gateway or associated system, for each LSR submittal gateway and for each system that facilitates access to the LSR gateway(s), to the extent availability is not counted as part of the LSR-processing gateway(s).	<b>Standard:</b> Diagnostic
<b>Availability:</b> Available (Prior to turn-up of new systems that replace those addressed in this measurement, parties will work together to establish a time frame for reporting and review of the new measure.)	<b>Notes:</b> <ol style="list-style-type: none"> <li>1. Such as "GA-1-IMA-GUI," "GA-1-XML," <sup>NOTE 2</sup> or "GA-1-SIA," with other gateways or systems being limited to those that replace these gateways.</li> <li>2. GA-1-XML replaces the former GA-8 PID.</li> </ol>

### GA-3 – Gateway Availability – Repair

<p><b>Purpose:</b> Evaluates the quality of CLEC access to the gateway interface offered by CenturyLink QC for CLECs to electronically submit repair trouble tickets, focusing on the extent the gateway is actually available to CLECs.</p>	
<p><b>Description:</b> GA-3-&lt;Name of Repair Gateway&gt; <sup>NOTE 1</sup>: Measures the availability of the gateway interface(s) through which CLECs submit repair troubles and reports the percentage of scheduled availability time the interface is available.</p> <ul style="list-style-type: none"> <li>Scheduled Up Time hours are based on the currently published hours of availability found on the following website: <a href="http://www.centurylink.com/wholesale/cmp/ossHours.html">http://www.centurylink.com/wholesale/cmp/ossHours.html</a>.</li> <li>Time Gateway is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.</li> <li>Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.</li> <li>Scheduled Down Time is time identified and communicated that the interface is not available due to maintenance and/or upgrade work. Notification of Scheduled Down Time for routine maintenance and/or upgrade work will be provided no less than 48 hours in advance.</li> <li>An outage is a critical or serious loss of functionality, attributable to the specified gateway or component, affecting CenturyLink QC's ability to serve its customers. An outage is determined by CenturyLink QC technicians through the use of verifiable data, collected from the affected customer(s) and/or from mechanized event management systems.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate results</p>	<p><b>Disaggregation Reporting:</b> Region-wide level.</p>
<p><b>Formula:</b>  <math display="block">\left( \frac{[\text{Number of Hours and Minutes Gateway is Available to CLECs During Reporting Period}]}{[\text{Number of Hours and Minutes of Scheduled Availability During Reporting Period}]} \right) \times 100</math> </p>	
<p><b>Exclusions:</b> None</p>	
<p><b>Product Reporting:</b> Reported by system, for each repair trouble submittal gateway.</p>	<p><b>Standard:</b> Diagnostic</p>
<p><b>Availability:</b> Available (Prior to turn-up of new systems that replace those addressed in this measurement, parties will work together to establish a time frame for reporting and review of the new measure.)</p>	<p>1. <b>Notes:</b> Such as "GA-3-EB-TA" or "GA-3-Repair GUI" <sup>NOTE 2</sup>, with other gateways or systems being limited to those that replace these gateways. 2. GA-3-Repair GUI replaces the former GA-6-GUI-Repair PID.</p>

## GA-4 – System Availability – ASR

<p><b>Purpose:</b> Evaluates the quality of CLEC batch access to electronic systems offered by CenturyLink QC for CLECs to submit ASRs, focusing on the extent the systems are actually available to CLECs.</p>	
<p><b>Description:</b> GA-4-&lt;Name of ASR-processing System&gt; <sup>NOTE 1:</sup> Measures the availability of the electronic ASR submittal system and reports the percentage of scheduled availability time the system is available.</p> <ul style="list-style-type: none"> <li>• Scheduled Up Time hours are based on the currently published hours of availability found on the following website: <a href="http://www.centurylink.com/wholesale/cmp/ossHours.html">http://www.centurylink.com/wholesale/cmp/ossHours.html</a>.</li> <li>• Time System is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.</li> <li>• Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.</li> <li>• Scheduled Down Time is time identified and communicated that the system is not available due to maintenance and/or upgrade work. Notification of Scheduled Down Time for routine maintenance and/or upgrade work will be provided no less than 48 hours in advance.</li> <li>• An outage is a critical or serious loss of functionality, attributable to the specified gateway or component, affecting CenturyLink QC’s ability to serve its customers. An outage is determined by CenturyLink QC technicians through the use of verifiable data, collected from the affected customer(s) and/or from mechanized event management systems.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate results</p>	<p><b>Disaggregation Reporting:</b> Region-wide level.</p>
<p><b>Formula:</b>  <math display="block">\frac{([\text{Number of Hours and Minutes EXACT is Available to CLECs During Reporting Period}] \div [\text{Number of Hours and Minutes of Scheduled Availability During Reporting Period}]) \times 100</math> </p>	
<p><b>Exclusions:</b> None</p>	
<p><b>Product Reporting:</b> Reported by system, for each ASR submittal gateway.</p>	<p><b>Standard:</b> Diagnostic</p>
<p><b>Availability:</b> Available (Prior to turn-up of new systems that replace those addressed in this measurement, parties will work together to establish a time frame for reporting and review of the new measure.)</p>	<p><b>Notes:</b> 1. Such as “GA-4-EXACT,” with other gateways or systems being limited to those that replace this system.</p>

## GA-7 – Timely Outage Resolution following Software Releases

<p><b>Purpose:</b> Measures the timeliness of resolution of gateway or system outages attributable to software releases for specified OSS interfaces, focusing on CLEC-affecting software releases involving the specified gateways or systems.</p>	
<p><b>Description:</b> Measures the percentage of gateway or system outages, which are attributable to OSS system software releases and which occur within two weeks after the implementation of the OSS system software releases, that are resolved <sup>NOTE 1</sup> within 48 hours of detection by the CenturyLink QC monitoring group or reporting by a CLEC/co-provider.</p> <ul style="list-style-type: none"> <li>• Includes software releases associated with the following OSS interfaces in CenturyLink QC: LSR-processing gateway(s), repair trouble report-processing gateway(s), and ASR-processing system(s) or gateway(s).<sup>NOTE 2</sup></li> <li>• An outage for this measurement is a critical or serious loss of functionality, attributable to the specified gateway or component, affecting CenturyLink QC's ability to serve its customers or data loss <sup>NOTE 3</sup> on the CenturyLink QC side of the interface. An outage is determined by CenturyLink QC technicians through the use of verifiable data, collected from the affected customer(s) and/or from mechanized event management systems.</li> <li>• The outage resolution time interval considered in this measurement starts at the time CenturyLink QC's monitoring group detects a failure, or at the date/time of the first transaction sent to CenturyLink QC that cannot be processed (i.e. lost data), and ends with the time functionality is restored or the lost data is recovered.</li> </ul>	
<p><b>Reporting Period:</b> Monthly</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC Aggregate</p>	<p><b>Disaggregation Reporting:</b> Region-wide level.</p>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{Total outages detected within two weeks of a Software Release that are resolved within 48 hours of the time CenturyLink QC detects the outage}}{\text{Total number of outages detected within two weeks of Software Releases resolved in the Reporting Period}} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Outages in releases prior to any CLEC migrating to the release.</li> <li>• Duplicate reports attributable to the same software defect.</li> </ul>	
<p><b>Product Reporting:</b> None</p>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b>  Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. "Resolved" means that service is restored to the reporting CLEC, as experienced by the CLEC.</li> <li>2. Such as, "IMA-GUI," "IMA-XML," "CEMR," "EXACT," and "EB-TA," with other gateways or systems being limited to those that replace these gateways/systems.</li> <li>3. For data loss to be considered for GA-7, a functional acknowledgement must have been provided for the data in question (e.g., LSR ID or trouble ticket number).</li> </ol>

## Pre-Order/Order

### PO-1 – Pre-Order/Order Response Times

<p><b>Purpose:</b> Evaluates the timeliness of responses to specific preordering/ordering queries for CLECs through the use of CenturyLink QC's Operational Support Systems (OSS). CenturyLink QC's OSS are accessed through the specified gateway interface.</p>	
<p><b>Description:</b> PO-1-&lt;Gateway Type&gt; <sup>NOTE 1:</sup> Measures the time interval between query and response for specified pre-order/order transactions through the electronic interface.</p> <ul style="list-style-type: none"> <li>• Measurements are made using a system that simulates the transactions of requesting pre-ordering/ordering information from the underlying existing OSS. These simulated transactions are made through the operational production interfaces and existing systems in a manner that reflects, in a statistically-valid manner, the transaction response times experienced by CLEC service representatives in the reporting period.</li> <li>• The time interval between query and response consists of the period from the time the transaction request was "sent" to the time it is "received" via the gateway interface.</li> <li>• A query is an individual request for the specified type of information.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Seconds</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate.</p>	<p><b>Disaggregation Reporting:</b> Region-wide level. Results are reported by gateway type</p> <p>Results are reported separately for each of the following transaction types, to the extent they are offered through the gateway type: <sup>NOTES 2, 3, &amp; 4</sup></p> <ol style="list-style-type: none"> <li>1. Appointment Scheduling (Due Date Reservation, where appointment is required)</li> <li>2. Service Availability Information</li> <li>3. Facility Availability</li> <li>4. Street Address Validation</li> <li>5. Customer Service Records</li> <li>6. Telephone Number</li> <li>7. Loop Qualification Tools</li> <li>8. [Left intentionally blank to preserve numbering]</li> <li>9. Connecting Facility Assignment</li> <li>10. Meet Point Inquiry</li> </ol> <p>Where available through the gateway type, in addition to reporting total response time, response times for each of the above transactions will be reported in two parts: (a) time to access the request screen, and (b) time to receive the response for the specified transaction. For above transaction number 6, Telephone Number, a third part (c) accept screen, will be reported, where available from the gateway type. Otherwise, request/response will be reported as a combined number.</p>

**PO-1 – Pre-Order/Order Response Times (continued)**

<p><b>Formula:</b>  <math display="block">\frac{\Sigma[(\text{Query Response Date \&amp; Time}) - (\text{Query Submission Date \&amp; Time})]}{(\text{Number of Queries Submitted in Reporting Period})}</math></p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Rejected requests/errors, and timed out transactions</li> </ul>	
<p><b>Product Reporting:</b> None</p>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Such as "PO-1-XML" or "PO-1-IMA GUI."</li> <li>2. As additional transactions, currently done manually, are mechanized, they will be measured and added to or included in the above list of transactions, as applicable.</li> <li>3. Results based on a weighted combination of mechanized system tools used in providing the response(s), as applicable, such as ADSL Loop Qualification and Raw Loop Data Tool.</li> <li>4. In the event that a measured gateway type is replaced and a specified transaction type is not conducive to measurement via simulated transactions (as defined under "Description" above), interested parties will work together to determine whether and how such transaction(s) can and should be measured.</li> </ol>

**PO-2 – Electronic Flow-through**

<p><b>Purpose:</b> Monitors the extent CenturyLink QC's processing of CLEC Local Service Requests (LSRs) is completely electronic, focusing on the degree that electronically-transmitted LSRs flow directly to the service order processor without human intervention or without manual retyping.</p>	
<p><b>Description:</b> PO-2A - Measures the percentage of all electronic LSRs that flow from the specified electronic gateway interface to the service order processor (SOP) without any human intervention.</p> <ul style="list-style-type: none"> <li>Includes all LSRs that are submitted electronically during the reporting period, subject to exclusions specified below.</li> </ul> <p>PO-2B – Measures the percentage of all flow-through-eligible LSRs <sup>NOTE 1</sup> that flow from the specified electronic gateway interface to the SOP without any human intervention.</p> <ul style="list-style-type: none"> <li>Includes all flow-through-eligible LSRs that are submitted electronically during the reporting period, subject to exclusions specified below.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC</p>	<p><b>Disaggregation Reporting:</b> Statewide level (per multi-state system serving the state).</p>
<p><b>Formula:</b> PO-2A = [(Number of Electronic LSRs that pass from the Gateway Interface to the SOP without human intervention) ÷ (Total Number of Electronic LSRs that pass through the Gateway Interface)] x 100</p> <p>PO-2B = [(Number of flow-through-eligible Electronic LSRs that actually pass from the Gateway Interface to the SOP without human intervention) ÷ (Number of flow-through-eligible Electronic LSRs received through the Gateway Interface)] x 100</p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>Rejected LSRs and LSRs containing CLEC-caused non-fatal errors.</li> <li>Non-electronic LSRs (e.g., via fax or courier).</li> <li>Records with invalid product codes.</li> <li>Records missing data essential to the calculation of the measurement per the PID.</li> <li>Duplicate LSR numbers.</li> <li>Invalid start/stop dates/times.</li> </ul>	
<p><b>Product Reporting:</b></p> <ul style="list-style-type: none"> <li>Existing Resale Services <sup>NOTE 2</sup></li> <li>Unbundled Loops (with or without Local Number Portability - includes Existing Analog Loops – <sup>NOTE 2</sup></li> <li>Local Number Portability (includes Existing Analog Loops – <sup>NOTE 2</sup>)</li> </ul>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>The list of LSR types classified as eligible for flow through is contained in the "LSRs Eligible for Flow Through" matrix. This matrix also includes availability for enhancements to flow through. Matrix will be distributed through the CMP process.</li> </ol>

**PO-2 – Electronic Flow-through (continued)**

	2. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.
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### PO-3 – LSR Rejection Notice Interval

<b>Purpose:</b> Monitors the timeliness with which CenturyLink QC notifies CLECs that electronic and manual LSRs were rejected.	
<b>Description:</b> Measures the interval between the receipt of a Local Service Request (LSR) and the rejection of the LSR for standard categories of errors/reasons. <ul style="list-style-type: none"> <li>• Includes all LSRs submitted through the specified interface that are rejected during the reporting period.</li> <li>• Standard reasons for rejections are: missing/incomplete/mismatching/unintelligible information, duplicate request or LSR/PON (purchase order number), no separate LSR for each account telephone number affected, no valid contract, no valid end user verification, account not working in CenturyLink QC territory, service-affecting order pending, request is outside established parameters for service, and lack of CLEC response to CenturyLink QC question for clarification about the LSR.</li> <li>• Included in the interval is time required for efforts by CenturyLink QC to work with the CLEC to avoid the necessity of rejecting the LSR.</li> <li>• With hours: minutes reporting, hours counted are business hours for manual rejects            Business hours are defined as time during normal business hours of the Wholesale Delivery Service Centers, except for PO-3C in which hours counted are workweek clock hours.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Hours: Minutes
<b>Reporting Comparisons:</b> CLEC aggregate and individual CLEC results	<b>Disaggregation Reporting:</b> Statewide <ul style="list-style-type: none"> <li>• PO-3C, LSRs received via facsimile</li> <li>• PO-3X, LSRs received electronically and rejected manually</li> </ul>
<b>Formula:</b> $\Sigma [(Date\ and\ time\ of\ Rejection\ Notice) - (Date\ and\ time\ of\ LSR\ receipt)] \div (Total\ number\ of\ LSR\ Rejection\ Notifications)$	
<b>Exclusions:</b> <ul style="list-style-type: none"> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> <li>• Duplicate LSR numbers.</li> <li>• Invalid start/stop dates/times.</li> </ul>	
<b>Product Reporting:</b> Not applicable	<b>Standards:</b> Diagnostic
<b>Availability:</b> Available	<b>Notes:</b>

## PO-5 – Firm Order Confirmations (FOCs) On Time

### Purpose:

Monitors the timeliness with which CenturyLink QC returns Firm Order Confirmations (FOCs) to CLECs in response to LSRs/ASRs received from CLECs, focusing on the degree to which FOCs are provided within specified intervals.

### Description:

Measures the percentage of Firm Order Confirmations (FOCs) that are provided to CLECs within the intervals specified under “Standards” below for FOC notifications.

- Includes all LSRs/ASRs that are submitted through the specified interface or in the specified manner (i.e., facsimile) that receive an FOC during the reporting period, subject to exclusions specified below. (Acknowledgments sent separately from an FOC (are not included.)
- For PO-5A, the interval measured is the period between the LSR received date/time (based on scheduled up time) and CenturyLink QC’s response with a FOC notification (notification date and time).
- For PO-5B, 5C, and 5D, the interval measured is the period between the application date and time, as defined herein, and CenturyLink QC’s response with a FOC notification (notification date and time).
- “Fully electronic” LSRs are those (1) that are received via an electronic LSR submittal gateway, (2) that involve no manual intervention, and (3) for which FOCs are provided mechanically to the CLEC. <sup>NOTE 2</sup>
- “Electronic/manual” LSRs are received electronically via an electronic LSR submittal gateway and involve manual processing.
- “Manual” LSRs are received manually (via facsimile) and processed manually.
- ASRs are measured only in business days.
- LSRs will be evaluated according to the FOC interval categories shown in the “Standards” section below, based on the number of lines/services requested on the LSR or, where multiple LSRs from the same CLEC are related, based on the combined number of lines/services requested on the related LSRs.

**Reporting Period:** One month

**Unit of Measure:** Percent

**Reporting Comparisons:**  
CLEC aggregate and individual CLEC results

**Disaggregation Reporting:** Statewide level (per multi-state system serving the state).

Results for this indicator are reported as follows:

- PO-5A: \* FOCs provided for fully electronic LSRs
- PO-5B: \* FOCs provided for electronic/manual
- PO-5C: \* FOCs provided for manual LSRs received via Facsimile.
- PO-5D: FOCs provided for ASRs requesting LIS Trunks.

\* Each of the PO-5A, PO-5B and PO-5C measurements listed above will be further disaggregated (a,b,c) in product reporting below

**PO-5 – Firm Order Confirmations (FOCs) On Time (continued)**

**Formula:**

PO-5A = {[Count of LSRs for which the original FOC's "(FOC Notification Date & Time) - (LSR received date/time (based on scheduled up time))" is within 20 minutes] ÷ (Total Number of original FOC Notifications transmitted for the service category in the reporting period)} x 100

PO-5B, 5C, & 5D = {[Count of LSRs/ASRs for which the original FOC's "(FOC Notification Date & Time) - (Application Date & Time)" is within the intervals specified for the service category involved] ÷ (Total Number of original FOC Notifications transmitted for the service category in the reporting period)} x 100

**Exclusions:**

- LSRs/ASRs involving individual case basis (ICB) handling based on quantities of lines, as specified in the "Standards" section below, or service/request types, deemed to be projects.
- Hours on Weekends and holidays. (Except for PO-5A which only excludes hours outside the scheduled up time).
- LSRs with CLEC-requested FOC arrangements different from standard FOC arrangements.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.
- Duplicate LSR numbers.
- Invalid start/stop dates/times.

**Additional PO-5D exclusion:**

- Records with invalid application or confirmation dates.

**Product Reporting:**

- For PO-5A, -5B and -5C:  
(a) Existing Resale Services  
NOTE 4  
(b) Unbundled Loops and specified Unbundled Network Elements.  
(c) LNP
- For PO-5D: LIS Trunks.

**Standards:**

- For PO-5A (all): 95% within 20 minutes <sup>NOTE 2</sup>
- For PO-5B (all): 90% within standard FOC intervals (specified below)
- For PO-5C (manual): 90% within standard FOC intervals specified below PLUS 24 hours <sup>NOTE 3</sup>
- For PO-5D (LIS Trunks): 85% within eight business days

**Standard FOC Intervals for PO-5B and PO-5C**

<b>Product Group</b> <sup>NOTE 1</sup>	<b>FOC Interval</b>
Existing Resale Services <sup>NOTE 4</sup> Residence POTS	<b>24 hours</b>
LNP (includes Existing Analog Loops <sup>NOTE 4</sup> )	
Unbundled Loops Existing Analog Loops <sup>NOTE 4</sup> [included in Product Reporting group (b)]	
Sub-Loop – Non-Loaded (includes Existing Analog Loops <sup>NOTE 4</sup> ) [included in Product Reporting group (b)]	

**PO-5 – Firm Order Confirmations (FOCs) On Time (continued)**

	<p><b>Enhanced Extended Loops-DS1 (EEL-DS1)</b> 1-24 circuits [included in Product Reporting group (b)]</p>	<p><b>48 hours</b></p>
	<p><b>Unbundled Loops w/Facility Check</b> (NOTES 2, 3) [included in Product Reporting group (b)] 1-24 loops 2-Wire Non-Loaded ADSL-Compatible XDSL-I Capable DS1-Capable</p>	<p><b>72 hours</b></p>
	<p><b>For PO-5D:</b> LIS Trunks 1-240 trunk circuits</p>	<p><b>8 business days</b></p>
	<p><b>Notes:</b> 1. LSRs with quantities above the highest number specified for each product type are considered ICB. 2. Unbundled Loop with Facility Check can be processed electronically; however, because this category always carries a 72-hour FOC interval the FOC results for this product will appear in PO-5B if received electronically or PO-5C if received manually. 3. Unbundled Loop with Facility Check will not add an additional 24 hours to the 72-hour interval if the LSR is submitted manually. 4. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.</p>	
<p><b>Availability:</b> Available</p>		

**PO-9 – Timely Jeopardy Notices**

<p><b>Purpose:</b> When original due dates are missed, measures the extent to which CenturyLink QC notifies customers in advance of jeopardized due dates.</p>	
<p><b>Description:</b> Measures the percentage of late orders for which advance jeopardy notification is provided.</p> <ul style="list-style-type: none"> <li>• Includes all inward orders (Change, New, and Transfer order types) assigned a due date by CenturyLink QC and which are completed/closed in the reporting period that missed the original due date. Change order types included in this measurement consist of all C orders representing <a href="#">inward activity</a>.</li> <li>• Missed due date orders with jeopardy notifications provided on or after the original due date is past will be counted in the denominator of the formula but will not be counted in the numerator.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level. (This measure is reported by jeopardy notification process as used for the categories shown under Product Reporting.)</p>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{Total missed due date orders completed in the reporting period that received jeopardy notification in advance of original due date}}{\text{Total number of missed due date orders completed in the reporting period}} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Orders missed for customer reasons.</li> <li>• Records with invalid product codes.</li> <li>• Records involving official company services.</li> <li>• Records with invalid due dates or <a href="#">application dates</a>.</li> <li>• Records with invalid completion dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<p><b>Product Reporting:</b></p> <ul style="list-style-type: none"> <li>B Unbundled Loops (Existing Analog Loops) <small>NOTE 1</small></li> <li>C LIS Trunks</li> </ul>	<p><b>Standards:</b> Diagnostic, with retail comparative results also reported as follows:</p> <ul style="list-style-type: none"> <li>B Parity with Retail POTS</li> <li>C Parity with Feature Group D (FGD) Services</li> </ul>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.</li> </ol>

**OP-3 – Installation Commitments Met**

<p><b>Purpose:</b> Evaluates the extent to which CenturyLink QC installs services for Customers by the scheduled due date.</p>	
<p><b>Description:</b> Measures the percentage of orders for which the scheduled due date is met.</p> <ul style="list-style-type: none"> <li>All inward orders (Change, New, and Transfer order types) assigned a due date by CenturyLink QC and which are completed/closed during the reporting period are measured, subject to exclusions specified below. Change order types included in this measurement consist of all C orders representing <a href="#">inward activity</a>. Also included are orders with customer-requested due dates longer than the standard interval.</li> <li>Completion date on or before the Applicable Due Date recorded by CenturyLink QC is counted as a met due date. The Applicable Due Date is the original due date or, if changed or delayed by the customer, the most recently revised due date, subject to the following: If CenturyLink QC changes a due date for CenturyLink QC reasons, the Applicable Due Date is the customer-initiated due date, if any, that is (a) subsequent to the original due date and (b) prior to a CenturyLink QC-initiated, changed due date, if any.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level.</p> <ul style="list-style-type: none"> <li>Results for product/services listed in Product Reporting under “<a href="#">MSA-Type Disaggregation</a>” will be reported according to orders involving: <ul style="list-style-type: none"> <li>OP-3A Dispatches within MSAs;</li> <li>OP-3B Dispatches outside MSAs; and</li> <li>OP-3C No dispatches.</li> </ul> </li> <li>Results for products/services listed in Product Reporting under “<a href="#">Zone-type Disaggregation</a>” will be disaggregated according to installations: <ul style="list-style-type: none"> <li>OP-3D In <a href="#">Interval Zone 1</a> areas; and</li> <li>OP-3E In <a href="#">Interval Zone 2</a> areas.</li> </ul> </li> </ul>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{(Total Orders completed in the reporting period on or before the Applicable Due Date)}}{\text{(Total Orders Completed in the Reporting Period)}} \right] \times 100</math></p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>Disconnect, From (another form of disconnect), and Record order types.</li> <li>Due dates missed for standard categories of customer and non-CenturyLink QC reasons. Standard categories of customer reasons are: previous service at the location did not have a customer-requested disconnect order issued, no access to customer premises, and customer hold for payment. Standard categories of non-CenturyLink QC reasons are: Weather, Disaster, and Work Stoppage.</li> <li>Records involving official company services.</li> <li>Records with invalid due dates or <a href="#">application dates</a>.</li> <li>Records with invalid completion dates.</li> <li>Records with invalid product codes.</li> <li>Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	

**OP-3 – Installation Commitments Met (continued)**

<b>Product Reporting:</b>		<b>Standards:</b>
<b>MSA-Type Disaggregation -</b>		
• Sub-Loop Unbundling – Non-Loaded		90%
<b>Zone-Type Disaggregation -</b>		
• LIS Trunks		Parity with Feature Group D (aggregate)
• Unbundled Loops:		
2-Wire Non-Loaded Loop		90%
DS1-Capable Loop		Parity with retail DS1 Private Line
xDSL-I Capable Loop		90%
ADSL-Compatible Loop		90%
• Enhanced Extended Loops-DS1 (EEL-DS1)		90%
<b>Availability:</b> Available	<b>Notes:</b>	

## OP-4 – Installation Interval

### Purpose:

Evaluates the timeliness of CenturyLink QC's installation of services for customers, focusing on the average time to install service.

### Description:

Measures the average interval (in business days)<sup>NOTE 1</sup> between the application date and the completion date for service orders accepted and implemented.

- Includes all inward orders (Change, New, and Transfer order types) assigned a due date by CenturyLink QC and which are completed/closed during the reporting period, subject to exclusions specified below. Change order types for additional lines consist of all C orders representing inward activity.
- Intervals for each measured event are counted in whole days: the application date is day zero (0); the day following the application date is day one (1).
- The Applicable Due Date is the original due date or, if changed or delayed by the customer, the most recently revised due date, subject to the following: If CenturyLink QC changes a due date for CenturyLink QC reasons, the Applicable Due Date is the customer-initiated due date, if any, that is (a) subsequent to the original due date and (b) prior to a CenturyLink QC-initiated, changed due date, if any.<sup>NOTE 2</sup>
- Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date, as applied in the formula below, are calculated by subtracting the latest CenturyLink QC-initiated due date, if any, following the Applicable Due Date, from the subsequent customer-initiated due date, if any.<sup>NOTE 2</sup>

**Reporting Period:** One month

**Unit of Measure:** Average Business Days

**Reporting Comparisons:**  
CLEC  
aggregate,  
individual  
CLEC and  
CenturyLink  
QC Retail  
results

**Disaggregation Reporting:** Statewide level.

- Results for product/services listed in Product Reporting under “MSA-Type Disaggregation” will be reported according to orders involving:
  - OP-4A Dispatches within MSAs;
  - OP-4B Dispatches outside MSAs; and
  - OP-4C No dispatches.
- Results for products/services listed in Product Reporting under “Zone-type Disaggregation” will be disaggregated according to installations:
  - OP-4D In Interval Zone 1 areas; and
  - OP-4E In Interval Zone 2 areas.

### Formula:

$$\frac{\sum[(\text{Order Completion Date}) - (\text{Order Application Date}) - (\text{Time interval between the Original Due Date and the Applicable Date}) - (\text{Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date})]}{\text{Total Number of Orders Completed in the reporting period}}$$

Explanation: The average installation interval is derived by dividing the sum of installation intervals for all orders (in business days)<sup>NOTE 1</sup> by total number of service orders completed in the reporting period.

**OP-4 – Installation Interval (continued)**

<b>Exclusions:</b>	
<ul style="list-style-type: none"> <li>• Orders with customer requested due dates greater than the current standard interval.</li> <li>• Disconnect, From (another form of disconnect), and Record order types.</li> <li>• Records involving official company services.</li> <li>• Records with invalid due dates or application dates.</li> <li>• Records with invalid completion dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<b>Product Reporting:</b>	<b>Standards:</b>
<b>MSA-Type Disaggregation -</b>	
• Sub-Loop Unbundling— Non-Loaded	6 days
<b>Zone-Type Disaggregation -</b>	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
2-Wire Non-Loaded Loop	6 days
DS1-Capable Loop	5.5 days
xDSL-I Capable Loop	6 days
ADSL-Compatible Loop	6 days
Enhanced Extended Loops-DS1 (EEL-DS1)	6 days
<b>Availability:</b>	
• Available	
	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. For all products, Saturday is counted as a business day when the service order is due or completed on Saturday.</li> <li>2. According to this definition, the Applicable Due Date can change, per successive customer-initiated due date changes or delays, up to the point when a CenturyLink QC-initiated due date change occurs. At that point, the Applicable Due Date becomes fixed (i.e., with no further changes) as the date on which it was set prior to the first CenturyLink QC-initiated due date change, if any. Following the first CenturyLink QC-initiated due date change, any further customer-initiated due date changes or delays are measured as time intervals that are subtracted as indicated in the formula. These delay time intervals are calculated as stated in the description. (Though infrequent, in cases where multiple CenturyLink QC-initiated due date changes occur, the stated method for calculating delay intervals is applied to each pair of CenturyLink QC-initiated due date change and subsequent customer-initiated due date change or delay. The intervals thus calculated from each pairing of CenturyLink QC and customer-initiated due dates are summed and then subtracted as indicated in the formula.) The result of this approach is that CenturyLink QC-initiated impacts on intervals are counted in the reported interval, and customer-initiated impacts on intervals are not counted in the reported interval.</li> </ol>

**OP-5 – New Service Installation Quality**

<p><b>Purpose:</b> Evaluates the quality of ordering and installing new services (inward line service orders), focusing on the percentage of newly-installed service orders that are free of CLEC/customer-initiated trouble reports during the provisioning process and within 30 calendar days following installation completion, and focusing on the quality of CenturyLink QC's resolution of such conditions with respect to multiple reports.</p>	
<p><b>Description:</b> Measures the percentage of inward line service orders that are free of repair trouble reports <sup>NOTE 2</sup> within 30 calendar days of installation completion, subject to exclusions below.</p> <ul style="list-style-type: none"> <li>• Orders for new services considered in calculating all components of this performance indicator are all inward line service orders completed in the reporting period, including Change (C-type) orders for additional lines/circuits, subject to exclusions shown below. Change order types considered in these measurements consist of all C orders representing <u>inward activity</u>. <sup>NOTE 1</sup></li> <li>• Orders for new service installations include conversions (Retail to CLEC, CLEC to CLEC, and same CLEC converting between products).</li> <li>• Repair trouble reports include both out of service and other service affecting conditions, such as features on a line that are missing or do not function properly upon conversion, subject to exclusions shown below.</li> <li>• Repair trouble reports are defined as CLEC/customer notifications to CenturyLink QC of out-of-service and other service affecting conditions for which CenturyLink QC opens repair tickets in its maintenance and repair management and tracking systems <sup>NOTE 3</sup> that are closed in the reporting period or the following month, <sup>NOTE 4</sup> subject to exclusions shown below. <sup>NOTE 5</sup></li> <li>• CenturyLink QC is able to open repair tickets for repair trouble reports received from CLECs/customers once the service order is completed in CenturyLink QC's systems.</li> </ul>	
<p><b>Reporting Period:</b> <u>One month</u>, reported in arrears (i.e., results first appear in reports one month later than results for measurements that are not reported in arrears), in order to cover the 30-day period following installation.</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level</p>
<p><b>Formula:</b> (Number inward line service orders completed in the reporting period – Number of inward line service orders with any <u>repair trouble reports</u> as specified above) ÷ (Number of inward line service orders completed in the reporting period) x 100</p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Repair trouble reports attributable to CLEC or coded to non-CenturyLink QC, e.g.: Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, CPE, Customer Instruction, Carrier, Alternate Provider, Reports from other than the CLEC/customer that result in a charge if dispatched, Carrier Action (IEC), Commercial power failure, Customer requested service order activity, and Other non-CenturyLink QC.</li> </ul>	

**OP- 5 – New Service Installation Quality (continued)**

<ul style="list-style-type: none"> <li>• Repair reports coded to disposition codes for referral to another department (i.e., for non-repair ticket resolutions of non-installation-related problems, except cable cuts, which are not excluded).</li> <li>• Repair or provisioning trouble reports related to service orders captured as misses under measurements OP-13 (Coordinated Cuts Timeliness)</li> <li>• Subsequent repair or provisioning trouble reports of any trouble on the installed service before the original repair or provisioning trouble report is closed.</li> <li>• Service orders closed in the reporting period with App Dates earlier than eight months prior to the beginning of the reporting period.</li> <li>• Information tickets generated for internal CenturyLink QC system/network monitoring purposes.</li> <li>• Disconnect, From (another form of disconnect) and Record order types. When out of service or service affecting problems are reported to the call center on conversion and move requests, the resulting call center ticket will be included in the calculation of the numerator in association with the related inward order type even when the call center ticket reflects the problem was caused by the Disconnect or From order.</li> <li>• Records involving official CenturyLink QC company services.</li> <li>• Records missing data essential to the calculation of the measurement as defined herein.</li> </ul>		
<p><b>Product Reporting Categories:</b></p> <ul style="list-style-type: none"> <li>• As specified below – one percentage result reported for each bulleted category under the sub-measurements shown.</li> </ul>	<p><b>Standards:</b> Parity with retail service <i>(Where parity comparisons involve multiple service varieties in a product category, weighting based on the retail analogue volumes may be used if necessary to create a comparison that is not affected by different proportions of wholesale and retail analogue volumes in the same reporting category.)</i></p>	
<p><b>Product Reporting:</b></p> <ul style="list-style-type: none"> <li>• Sub-Loop Unbundling— Non-Loaded</li> <li>• Unbundled Loops:</li> </ul>		<p><b>Standards:</b></p> <p>Parity with retail DS1 Private Line</p>
	2-Wire Non-Loaded Loop	Parity with retail ISDN BRI (designed)
	DS1-Capable Loop	Parity with retail DS1
	xDSL-I Capable Loop	Parity with retail DS1 Private Line
	ADSL-Compatible Loop	Parity with retail ISDN BRI (designed)
	Enhanced Extended Loops-DS1 (EEL-DS1)	Parity with retail DS1 Private Line
	LIS Trunks	Parity with Feature Group D (aggregate)
<p><b>Availability:</b></p> <p>Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. The specified Change order types representing inward activity exclude Change orders that do not involve installation of lines (in both wholesale and retail results). Specifically this measurement does not include changes to existing lines, such as number changes and PIC changes.</li> <li>2. Including consideration of repeat repair trouble reports (i.e., additional reports of trouble related to the same newly-installed line/circuit that are received after the preceding repair report is closed and within 30 days following installation completion) to complete the determination of whether the newly-installed line/circuit was trouble free within 30 days of installation.</li> <li>3. CenturyLink QC's repair management and tracking systems obtain the repair report data for this measurement. Not included are Call Center</li> </ol>	

**OP- 5 – New Service Installation Quality (continued)**

	<p>Database systems supporting call centers in logging calls from customers regarding problems or other inquiries.</p> <ol style="list-style-type: none"><li>4. The “following month” includes also the period of a few <u>business days</u> (typically four or five) afterward, up to the time when CenturyLink QC pulls the repair data to begin processing results for this measurement.</li><li>5. Includes repair and provisioning trouble reports generated by new processes that supersede or supplement existing processes for submitting repair and provisioning trouble reports as specified in CenturyLink QC’s documented or agreed upon procedures.</li></ol>
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## OP-8 – Number Portability Timeliness

<b>Purpose:</b> Evaluates the timeliness of cutovers of local number portability (LNP).	
<b>Description:</b> OP-8C – LNP Timeliness (percent): Measures the percentage of LNP triggers set prior to the Frame Due Time or scheduled start time for the LNP cutover as applicable. <ul style="list-style-type: none"> <li>• All orders for LNP for standalone LNP coordinated and non-coordinated with other than CenturyLink QC provided facilities subject to exclusions specified below.</li> <li>• For purposes of this measurement (OP-8C), “trigger” refers to the “10-digit unconditional trigger” or Line Side Attribute (LSA) that is set or translated by CenturyLink QC.</li> <li>• “Scheduled start time” is defined as the confirmed appointment time (as stated on the FOC), or a newly negotiated time. In the case of LNP cutovers coordinated with loops, the scheduled time used in this measurement will be no later than the “lay” time for the loop.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Percent of triggers set on time
<b>Reporting Comparisons:</b> CLEC aggregate and individual CLEC results	<b>Disaggregation Reporting:</b> Statewide level.
<b>Formula:</b> $OP-8C = \left[ \frac{\text{(Number of LNP triggers set before the Frame Due Time or Scheduled Start Time)}}{\text{(Total Number of LNP activations without loop cutovers completed)}} \right] \times 100$	
<b>Exclusions:</b> <ul style="list-style-type: none"> <li>• Existing Analog Loops <sup>NOTE 1</sup></li> <li>• CLEC-caused delays in trigger setting.</li> <li>• LNP requests that do not involve automatic triggers.</li> <li>• LNP requests for which the records used as sources of data for these measurements have the following types of errors:               <ul style="list-style-type: none"> <li>• Records with no PON (purchase order number) or STATE.</li> <li>• Records where triggers cannot be set due to switch capabilities.</li> <li>• Records with invalid due dates, <a href="#">application dates</a>, or start dates.</li> <li>• Records with invalid completion dates.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> <li>• Invalid start/stop dates/times or invalid frame due or scheduled date/times.</li> </ul> </li> </ul>	
<b>Product Reporting:</b> None	<b>Standard:</b> 95%
<b>Availability:</b> Available	<b>Notes:</b> <ol style="list-style-type: none"> <li>1. Effective 2/2/20. See definition of terms for product description.</li> </ol>

**OP-15 – Interval for Pending Orders Delayed Past Due Date**

<p><b>Purpose:</b> Evaluates the extent to which CenturyLink QC’s pending orders are late, focusing on the average number of days the pending orders are delayed past the Applicable Due Date, as of the end of the reporting period.</p>	
<p><b>Description:</b> OP-15A – Measures the average number of <u>business days</u> that pending orders are delayed beyond the Applicable Due Date for reasons attributed to CenturyLink QC.</p> <ul style="list-style-type: none"> <li>• Includes all pending inward orders (Change, New, and Transfer order types) for which the Applicable Due Date recorded by CenturyLink QC has been missed, subject to exclusions specified below. Change order types included in this measurement consist of all “C” orders representing <u>inward activity</u>.</li> <li>• The Applicable Due Date is the original due date or, if changed or delayed by the customer, the most recently revised due date, subject to the following: If CenturyLink QC changes a due date for CenturyLink QC reasons, the Applicable Due Date is the customer-initiated due date, if any, that is (a) subsequent to the original due date and (b) prior to a CenturyLink QC-initiated, changed due date, if any. <sup>NOTE 1</sup></li> <li>• Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date, as applied in the formula below, are calculated by subtracting the latest CenturyLink QC-initiated due date, if any, following the Applicable Due Date, from the subsequent customer-initiated due date, if any. <sup>NOTE 1</sup></li> </ul> <p>OP-15B – Reports the number of pending orders measured in the numerator of OP-15A that were delayed for CenturyLink QC facility reasons.</p>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> OP-15A – Average Business Days <sup>NOTE 2</sup> OP-15B – Number of orders pending facilities</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC, CenturyLink QC retail</p>	<p><b>Disaggregation Reporting:</b> Statewide</p>
<p><b>Formula:</b> OP-15A = <math>\frac{\sum[(\text{Last Day of Reporting Period}) - (\text{Applicable Due Date of Late Pending Order}) - (\text{Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date})]}{(\text{Total Number of Pending Orders Delayed for CenturyLink QC reasons as of the last day of Reporting Period})}</math> OP-15B = Count of pending orders measured in numerator of OP-15A that were delayed for CenturyLink QC facility reasons</p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Disconnect, From (another form of disconnect) and Record order types.</li> <li>• Records involving official company services.</li> <li>• Records with invalid due dates or <u>application dates</u>.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	

**OP-15 – Interval for Pending Orders Delayed Past Due Date (continued)**

<b>Product Reporting:</b>	<b>Standards:</b> Diagnostic, with retail comparatives also reported as specified below
• Sub-Loop Unbundling - Non-Loaded	Diagnostic
• LIS Trunks	Diagnostic (Expectation: Parity with Feature Group D (aggregate)) (separately reported)
• Unbundled Loops:	
2-Wire Non-Loaded Loop	Diagnostic (Expectation: Parity with retail ISDN BRI (designed))
DS1-Capable Loop	Diagnostic (Expectation: Parity with retail DS1)
xDSL-I Capable Loop	Diagnostic
ADSL-Compatible Loop	Diagnostic (Expectation: Parity with retail ISDN BRI (designed))
• Enhanced Extended Loops-DS1 (EEL-DS1)	Diagnostic
<b>Availability:</b> Available	<b>Notes:</b> 1. According to this definition, the Applicable Due Date can change, per successive customer-initiated due date changes or delays, up to the point when a CenturyLink QC-initiated due date change occurs. At that point, the Applicable Due Date becomes fixed (i.e., with no further changes) as the date on which it was set prior to the first CenturyLink QC-initiated due date change, if any. Following the first CenturyLink QC-initiated due date change, any further customer-initiated due date changes or delays are measured as time intervals that are subtracted as indicated in the formula. These delay time intervals are calculated as stated in the description. (Though infrequent, in cases where multiple CenturyLink QC-initiated due date changes occur, the stated method for calculating delay intervals is applied to each pair of CenturyLink QC-initiated due date change and subsequent customer-initiated due date change or delay. The intervals thus calculated from each pairing of CenturyLink QC and customer-initiated due dates are summed and then subtracted as indicated in the formula.) The result of this approach is that CenturyLink QC-initiated impacts on intervals are counted in the reported interval, and customer-initiated impacts on intervals are not counted in the reported interval. 2. For all non-dispatched products and for all dispatched products under OP-15A, Saturday is not counted as a business day.

## Maintenance and Repair

### MR-5 – Troubles Cleared within Specified Intervals

<p><b>Purpose:</b> Evaluates timeliness of repair for specified services, focusing on all trouble reports of all types (including out of service and service affecting troubles, as set forth herein) and on the number of such trouble reports cleared within the specified intervals (i.e., 4 or 24 hours).</p>	
<p><b>Description:</b> Measures the percentage of trouble reports for specified services that are cleared within 4 or 24 hours of receipt of trouble reports from CLECs or from retail customers.</p> <ul style="list-style-type: none"> <li>• Includes all trouble reports (out of service or all troubles, as specified under product reporting below), closed during the reporting period, which involve a specified service, subject to exclusions specified below.</li> <li>• Time measured is from date and time that CenturyLink QC is first notified of the trouble by CLEC to date and time trouble is cleared.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC, and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level. Results for listed products will be disaggregated according to trouble reports:</p> <ul style="list-style-type: none"> <li>MR-5A Zone-type disaggregation In <a href="#">Interval Zone 1</a> areas</li> <li>MR-5B Zone-type disaggregation In <a href="#">Interval Zone 2</a> areas</li> <li>MR-5X Non-disaggregated reporting</li> </ul>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{((Number of Trouble Reports closed in the reporting period that are cleared within interval specified herein))}}{\text{(Total Trouble Reports closed in the reporting period)}} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Trouble reports coded to non-CenturyLink QC causes or dispositions, e.g., Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, Carrier Action (IEC) and Customer Provided Equipment (CPE).</li> <li>• Subsequent trouble reports of any trouble before the original trouble report is closed.</li> <li>• Information tickets generated for internal CenturyLink QC system/network monitoring purposes.</li> <li>• Time delays due to “no access” are excluded from repair time.</li> <li>• Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.</li> <li>• Records involving official company services.</li> <li>• Records with invalid trouble receipt dates.</li> <li>• Records with invalid cleared or closed dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	

**MR-5 – Troubles Cleared within Specified Intervals (continued)**

<b>Product Reporting:</b>	<b>Standards:</b>
<b>Zone-Type Disaggregation – All Troubles Cleared within 4 Hours</b>	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops	
DS1-Capable Loop	Parity with retail DS1
2-Wire Non-Loaded Loop	Diagnostic (no retail comparison)
xDSL-I Capable Loop	Diagnostic (no retail comparison)
ADSL-Compatible Loop	Diagnostic (no retail comparison)
• Enhanced Extended Loops-DS1 (EEL-DS1)	Parity with retail DS1 Private Line
<b>Non-disaggregated Reporting – Out of Service Cleared within 24 Hours</b>	
• Existing Resale Services - Business Single Line Service <sup>NOTE 1</sup>	Diagnostic (Expectation: parity with retail)
• Sub-Loop Unbundling – Non-Loaded (Includes Existing Analog Loops <sup>NOTE 1</sup> )	Diagnostic (Expectation: parity with retail RES and BUS POTS)
<b>Availability:</b> Available	<b>Notes:</b> 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.

**MR-6 – Mean Time to Restore**

**Purpose:**

Evaluates timeliness of repair, focusing how long it takes to restore services to proper operation.

**Description:**

Measures the time actually taken to clear trouble reports.

- Includes all trouble reports closed during the reporting period, subject to exclusions specified below.
- Includes customer direct reports, customer-relayed reports, and test assist reports that result in a trouble report.
- Time measured is from date and time that CenturyLink QC is first notified of the trouble by CLEC to date and time trouble is cleared.

**Reporting Period:** One month

**Unit of Measure:** Hours and Minutes

**Reporting Comparisons:**  
CLEC aggregate, individual CLEC, and CenturyLink QC Retail results

**Disaggregation Reporting:** Statewide level.

- Results for product/services listed in Product Reporting under “[MSA-Type Disaggregation](#)” will be reported according to trouble reports involving:
  - MR-6A      Dispatches within MSAs;
  - MR-6B      Dispatches outside MSAs; and
  - MR-6C      No dispatches.
- Results for products/services listed in Product Reporting under “[Zone-type Disaggregation](#)” will be disaggregated according to trouble reports involving:
  - MR-6D      In [Interval Zone 1](#) areas; and
  - MR-6E      In [Interval Zone 2](#) areas.

**Formula:**

$\Sigma[(\text{Date \& Time Trouble Report Cleared}) - (\text{Date \& Time Trouble Report Opened})] \div (\text{Total number of Trouble Reports closed in the reporting period})$

**Exclusions:**

- Trouble reports coded to non-CenturyLink QC causes or dispositions, e.g., Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, non-CenturyLink QC, CPE, Customer Instruction, Carrier, Alternate Provider, and Carrier Action (IEC).
- Subsequent trouble reports of any trouble before the original trouble report is closed.
- Trouble reports coded as No Trouble Found or Test Okay and with durations of less than or equal to 1 hour.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- Time delays due to “no access,” as applicable, are excluded from repair time for products/services listed in Product Reporting under “[Zone-type Disaggregation](#).”
- For products listed for MSA-type disaggregation, trouble reports involving a “no access” delay.
- Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.

**MR-6 – Mean Time to Restore (Continued)**

<ul style="list-style-type: none"> <li>• Records involving official company services.</li> <li>• Records with invalid trouble receipt dates.</li> <li>• Records with invalid cleared or closed dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<b>Product Reporting:</b>	<b>Standards:</b>
<b>MSA-Type Disaggregation</b>	
<ul style="list-style-type: none"> <li>• Existing Resale Services - Residential single line service <sup>NOTE 2</sup></li> </ul>	Parity with retail service
<ul style="list-style-type: none"> <li>• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops <sup>NOTE 2</sup>)</li> </ul>	Parity with Retail RES and BUS POTS <sup>NOTE 1</sup>
<b>Zone-Type Disaggregation -</b>	
<ul style="list-style-type: none"> <li>• LIS Trunks</li> </ul>	Parity with Feature Group D (aggregate)
<ul style="list-style-type: none"> <li>• Unbundled Loops:</li> </ul>	
Existing Analog Loops <sup>NOTE 2</sup>	Parity with retail Res and Bus POTS
2-Wire Non-Loaded Loop	Parity with retail ISDN BRI (designed)
DS1-Capable Loop	Parity with retail DS1 Private Line
xDSL-I Capable Loop	Parity with retail DS1 Private Line
ADSL-Compatible Loop	Parity with retail ISDN BRI (designed)
<ul style="list-style-type: none"> <li>• Enhanced Extended Loops-DS1 (EEL-DS1)</li> </ul>	Parity with retail DS1 Private Line
<b>Availability:</b> Available	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Should the standard repair interval for SubLoops be changed to 4 hours, as applicable to interconnection agreements (ICAs) of all CLECs opted into the CenturyLink QC performance assurance plan (Exhibit K of ICAs), the retail comparative will become "Retail DS1 Private Line."</li> <li>2. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.</li> </ol>

**MR-7 – Repair Repeat Report Rate**

<p><b>Purpose:</b> Evaluates the accuracy of repair actions, focusing on the number of <u>repeated trouble reports</u> received for the same line/circuit within a specified period (30 calendar days).</p>	
<p><b>Description:</b> Measures the percentage of trouble reports that are repeated within 30 days on end user lines and circuits.</p> <ul style="list-style-type: none"> <li>• Includes all trouble reports closed during the reporting period that have a repeated trouble report received within thirty (30) days of the initial trouble report for the same service (regardless of whether the report is about the same type of trouble for that service), subject to exclusions specified below.</li> <li>• In determining same service CenturyLink QC will compare the end user telephone number or circuit access code of the initial trouble reports closed during the reporting period with reports received within 30 days of when the initial trouble report closed.</li> <li>• Includes reports due to CenturyLink QC network or system causes, customer-direct and customer-relayed reports.</li> <li>• The 30-day period applied in the numerator of the formula below is from the date and time that the initial trouble report is closed to the date and time that the next, or “repeat” trouble report is received (i.e., opened).</li> </ul>	
<p><b>Reporting Period:</b> One month, reported in arrears (i.e., results first appear in reports one month later than results for measurements that are not reported in arrears), in order to cover the 30-day period following the initial trouble report.</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC, and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level.</p> <ul style="list-style-type: none"> <li>• Results for product/services listed in Product Reporting under “<u>MSA-Type Disaggregation</u>” will be reported according to trouble reports involving: <ul style="list-style-type: none"> <li>MR-7A      Dispatches within MSAs;</li> <li>MR-7B      Dispatches outside MSAs; and</li> <li>MR-7C      No dispatches.</li> </ul> </li> <li>• Results for products/services listed in Product Reporting under “<u>Zone-type Disaggregation</u>” will be disaggregated according to trouble reports involving: <ul style="list-style-type: none"> <li>MR-7D      In <u>Interval Zone 1</u> areas; and</li> <li>MR-7E      In <u>Interval Zone 2</u> areas.</li> </ul> </li> </ul>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{Total trouble reports closed within the reporting period that had a repeated trouble report received within 30 calendar days of when the initial trouble report closed}}{\text{Total number of Trouble Reports Closed in the reporting period}} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Trouble reports coded to non-CenturyLink QC causes or dispositions, e.g., Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, non-CenturyLink QC, CPE, Customer Instruction, Carrier, Alternate Provider, and Carrier Action (IEC).</li> </ul>	

**MR-7 – Repair Repeat Report Rate (Continued)**

<ul style="list-style-type: none"> <li>• Subsequent trouble reports of any trouble before the original trouble report is closed.</li> <li>• Information tickets generated for internal CenturyLink QC system/network monitoring purposes.</li> <li>• Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.</li> <li>• Records involving official company services.</li> <li>• Records with invalid trouble receipt dates.</li> <li>• Records with invalid cleared or closed dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<b>Product Reporting:</b>	<b>Standards:</b>
<b>MSA-Type Disaggregation -</b>	
<ul style="list-style-type: none"> <li>• Existing Resale Services - Residential single line service <sup>NOTE 1</sup></li> </ul>	Parity with retail service
<ul style="list-style-type: none"> <li>• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops <sup>NOTE 1</sup>)</li> </ul>	Retail DS1 Private Line
<b>Zone-Type Disaggregation -</b>	
<ul style="list-style-type: none"> <li>• LIS Trunks</li> </ul>	Parity with Feature Group D (aggregate)
<ul style="list-style-type: none"> <li>• Unbundled Loops:</li> </ul>	
Existing Analog Loops <sup>NOTE 1</sup>	Parity with retail Res and Bus POTS
2-Wire Non-Loaded Loop	Parity with retail ISDN BRI (designed)
DS1-Capable Loop	Parity with retail DS1 Private Line
xDSL-I Capable Loop	Parity with retail DS1 Private Line
ADSL-Compatible Loop	Parity with retail ISDN BRI (designed)
<ul style="list-style-type: none"> <li>• Enhanced Extended Loops-DS1 (EEL-DS1)</li> </ul>	Parity with retail DS1 Private Line
<b>Availability:</b> Available	<b>Notes:</b>
	1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.

## MR-8 – Trouble Rate

<b>Purpose:</b> Evaluates the overall rate of trouble reports as a percentage of the total installed base of the service or element.	
<b>Description:</b> Measures trouble reports by product and compares them to the number of lines in service. <ul style="list-style-type: none"> <li>• Includes all trouble reports closed during the reporting period, subject to exclusions specified below.</li> <li>• Includes all applicable trouble reports, including those that are out of service and those that are only service-affecting.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Percent
<b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC, and CenturyLink QC Retail results	<b>Disaggregation Reporting:</b> Statewide level
<b>Formula:</b> $\left[ \frac{\text{Total number of trouble reports closed in the reporting period involving the specified service grouping}}{\text{Total number of the specified services that are in service in the reporting period}} \right] \times 100$	
<b>Exclusions:</b> <ul style="list-style-type: none"> <li>• Trouble reports coded to non-CenturyLink QC causes or dispositions, e.g., Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, non-CenturyLink QC, CPE, Customer Instruction, Carrier, Alternate Provider, and Carrier Action (IEC).</li> <li>• Subsequent trouble reports of any trouble before the original trouble report is closed.</li> <li>• Information tickets generated for internal CenturyLink QC system/network monitoring purposes.</li> <li>• Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.</li> <li>• Records involving official company services.</li> <li>• Records with invalid trouble receipt dates.</li> <li>• Records with invalid cleared or closed dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<b>Product Reporting:</b>	<b>Standards:</b>
• Existing Resale Services - Residential single line service <sup>NOTE 2</sup>	Parity with retail service
• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops <sup>NOTE 2</sup> )	Parity with Retail DS1 Private Line
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
Existing Analog Loops <sup>NOTE 2</sup>	Parity with retail Res and Bus POTS
2-Wire Non-Loaded Loop	Parity with retail ISDN-BRI
DS1-Capable Loop	Parity with retail DS1 Private Line, except Colorado <sup>NOTE 1</sup>
xDSL-I Capable Loop	Parity with retail DS1 Private Line
ADSL-Compatible Loop	Parity with retail ISDN-BRI

**MR-8 – Trouble Rate (continued)**

<ul style="list-style-type: none"> <li>Enhanced Extended Loops-DS1 (EEL-DS1)</li> </ul>	Parity with retail DS1 Private Line, except Colorado <sup>NOTE 1</sup>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. <u>In Colorado Only:</u> For DS1-Capable Loops and EEL-DS1s, the following three-tiered standard applies:                         <ol style="list-style-type: none"> <li>a. Benchmark of 3% for 3-month rolling average CLEC aggregate result or, if greater than 3%,</li> <li>b. Difference of less than or equal to one percentage point between 3-month rolling average of CLEC aggregate result and corresponding 3-month average Retail comparative result or, if difference is greater than one percentage point,</li> <li>c. Parity in current reported month using DS1 Private Line as retail comparative.</li> </ol> </li> <li>2. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.</li> </ol>

**MR-9 – Repair Appointments Met** NOTE 1

<p><b>Purpose:</b> Evaluates the extent to which CenturyLink QC repairs services for Customers by the appointment date and time.</p>	
<p><b>Description:</b> Measures the percentage of trouble reports for which the appointment date and time is met.</p> <ul style="list-style-type: none"> <li>• Includes all trouble reports closed during the reporting period, subject to exclusions specified below.</li> <li>• Time measured is from date and time that CenturyLink QC is first notified of the trouble by CLEC to date and time trouble is cleared.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level. Results for listed services will be disaggregated and reported according to trouble reports involving: MR-9A Dispatches within MSAs; MR-9B Dispatches outside MSAs; and MR-9C No dispatches.</p>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\text{Total Trouble Reports Cleared by appointment date and time}}{\text{Total Trouble Reports Closed in the Reporting Period}} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Trouble reports coded to non-CenturyLink QC causes or dispositions, e.g., Customer Action, Non-Telco Plant, Trouble Beyond the Network Interface, Miscellaneous – Non-Dispatch, non-CenturyLink QC, CPE, Customer Instruction, Carrier, Alternate Provider, and Carrier Action (IEC).</li> <li>• Subsequent trouble reports of any trouble before the original trouble report is closed.</li> <li>• Information tickets generated for internal CenturyLink QC system/network monitoring purposes.</li> <li>• Time delays due to “no access” are excluded from repair time by using the rescheduled appointment time to determine if the repair appointment is met.</li> <li>• Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.</li> <li>• Records involving official company services.</li> <li>• Records with invalid trouble receipt dates.</li> <li>• Records with invalid cleared or closed dates.</li> <li>• Records with invalid product codes.</li> <li>• Records missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<p><b>Product Reporting:</b> Existing Resale Services: Residential single line service NOTE 1</p>	<p><b>Standard:</b> Diagnostic, with residential single line retail comparative results also reported</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b> 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</p>

**MR-11 – LNP Trouble Reports Cleared within Specified Timeframes**

<p><b>Purpose:</b> Evaluates timeliness of clearing LNP trouble reports, focusing on the degree to which residence, disconnect-related, out-of-service trouble reports are cleared within four business hours and all LNP-related trouble reports are cleared within 48 hours.</p>	
<p><b>Description:</b> MR-11A: Measures the percentage of specified LNP-only (i.e., not unbundled-loop), residence out-of-service trouble reports that are cleared within four business hours of CenturyLink QC receiving these trouble reports from CLECs.</p> <ul style="list-style-type: none"> <li>• Includes only trouble reports that are received on or before the currently-scheduled due date of the actual LNP-related disconnect time/date, or the next <u>business day</u>, that are confirmed to be caused by disconnects being made before the scheduled time, and that are closed during the reporting period, subject to exclusions specified below.</li> <li>• The “currently-scheduled due date/time” is the original due date/time established by CenturyLink QC in response to CLEC/customer request for disconnection of service ported via LNP or, if CLEC submits to CenturyLink QC a timely or untimely request for delay of disconnection, it is the CLEC/customer-requested later date/time.</li> <li>• A request for delay of disconnection is considered timely if received by CenturyLink QC before 8:00 p.m. MT on the due date that CenturyLink QC has on record at the time of the request.</li> <li>• A request for delay of disconnection is considered untimely if received by CenturyLink QC after 8:00 p.m. MT on the due date and before 12:00 p.m. MT (noon) on the day after the due date.</li> <li>• Time measured is from the date and time CenturyLink QC receives the trouble report to the date and time trouble is cleared.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC Aggregate and Individual CLEC</p>	<p><b>Disaggregation Reporting:</b> Statewide level (all are “non-dispatched”).</p>
<p><b>Formula:</b> MR-11A = [(Number of specified out-of-service LNP-only Trouble Reports, for LNP-related troubles confirmed to be caused by disconnects, that CenturyLink QC executed before the currently-scheduled due date/time, that were closed in the reporting period and cleared within four business hours) ÷ (Total Number of specified out of service LNP-only Trouble Reports for LNP-related troubles confirmed to be caused by disconnects that CenturyLink QC executed before the currently-scheduled due date/time, that were closed in the reporting period)] x 100</p>	

### MR-11 – LNP Trouble Reports Cleared within Specified Timeframes

**Exclusions:**

- Trouble reports attributed to customer or non-CenturyLink QC reasons.
- Trouble reports not related to valid requests (LSRs) for LNP and associated disconnects.
- Subsequent trouble reports of LNP trouble before the original trouble report is closed.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- Records involving official company services.
- Records with invalid trouble receipt dates.
- Records with invalid cleared or closed dates.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

**Product Reporting:** LNP**Standards:** Diagnostic**Availability:** Available**Notes:**

## Billing

### BI-2 – Invoices Delivered within 10 Days

<b>Purpose:</b> Evaluates the timeliness with which CenturyLink QC delivers industry-standard, electronically-transmitted bills to CLECs, focusing on the percent delivered within ten calendar days.	
<b>Description:</b> Measures the percentage of invoices that are delivered within ten days, based on the number of days between the bill date and bill delivery. <ul style="list-style-type: none"> <li>• Includes all industry standard electronically transmitted invoices for local exchange services and toll, subject to exclusions specified below.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Percent
<b>Reporting Comparisons:</b> Combined CenturyLink QC Retail/CLEC results (Parity by design)	<b>Disaggregation Reporting:</b> State level
<b>Formula:</b> $[(\text{Count of Invoices for which Bill Transmission Date to Bill Date is ten calendar days or less}) \div (\text{Total Number of Invoices})] \times 100$	
<b>Exclusions:</b> <ul style="list-style-type: none"> <li>• Bills transmitted via paper, magnetic tape, CD-ROM, diskette.</li> <li>• Records with missing data essential to the calculation of the measurement per the PID.</li> </ul>	
<b>Product Reporting:</b> <ul style="list-style-type: none"> <li>• UNEs (including Existing Analog Loops <sup>NOTE 1</sup> and Existing Resale Services – Residence <sup>NOTE 1</sup>)</li> </ul>	<b>Standard:</b> Diagnostic (Parity by Design)
<b>Availability:</b> Available	<b>Notes:</b> <ol style="list-style-type: none"> <li>1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</li> </ol>

**BI-3 – Billing Accuracy – Adjustments for Errors**

<p><b>Purpose:</b> Evaluates the accuracy with which CenturyLink QC bills CLECs, focusing on the percentage of billed revenue adjusted due to errors.</p>	
<p><b>Description:</b> Measures the billed revenue minus amounts adjusted off bills due to errors, as a percentage of total billed revenue.</p> <ul style="list-style-type: none"> <li>• Both the billed revenue and amounts adjusted off bills due to error are calculated from bills rendered in the reporting period.</li> <li>• “Amounts adjusted off bills due to errors” is the sum of all bill adjustments made in the reporting period that involve, either in part or in total, adjustment codes related to billing errors. (Each adjustment thus qualifying is added to the sum in its entirety.)</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLECs</p>	<p><b>Disaggregation Reporting:</b> State level</p>
<p><b>Formula:</b>  <math display="block">\left[ \frac{\sum(\text{Total Billed Revenue Billed in Reporting Period} - \text{Amounts Adjusted Off Bills Due to Errors})}{(\text{Total Billed Revenue billed in Reporting Period})} \right] \times 100</math> </p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• BI-3A – UNE Loops – None</li> <li>• BI-3B - Reciprocal Compensation Minutes of Use – Billing adjustments as a result of CLEC-caused errors in return of minutes of use</li> </ul>	
<p><b>Product Reporting:</b></p> <ul style="list-style-type: none"> <li>• BI-3A – UNE Loops (including Existing Analog Loops <sup>NOTE 1</sup> and Existing Resale Services – Residence <sup>NOTE 1</sup>)</li> <li>• BI-3B - Reciprocal Compensation Minutes of Use (MOU)</li> </ul>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</li> </ol>

## BI-4 – Billing Completeness

<p><b>Purpose:</b></p> <ul style="list-style-type: none"> <li>• BI-4A – Evaluates the completeness with which CenturyLink QC reflects non-recurring and recurring charges associated with completed service orders on the bills.</li> <li>• BI-4B – Evaluates the completeness with which CenturyLink QC reflects the revenue for Local Minutes of Use associated with CLEC local traffic over CenturyLink QC's network on the bills.</li> </ul>	
<p><b>Description:</b></p> <p>BI-4A – Measures the percentage of non-recurring and recurring charges associated with completed service orders appear on the correct bill.*</p> <p>BI-4B – Measures the percentage of revenue associated with local minutes of use appearing on the correct (current) bill.*</p> <p>* Correct bill = next available bill</p>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLECs, and CenturyLink QC Retail results</p>	<p><b>Disaggregation Reporting:</b> Statewide level.</p>
<p><b>Formula:</b></p> <p>BI-4A = <math>\frac{\sum(\text{Count of service orders with non-recurring and recurring charges associated with completed service orders on the bills that are billed on the correct bill} \div \text{total count of service orders with non-recurring and recurring charges associated with completed service orders billed on the bill})}{\text{total count of service orders with non-recurring and recurring charges associated with completed service orders billed on the bill}} \times 100</math></p> <p>BI-4B = <math>\frac{\sum(\text{Revenue for Local Minutes of Use billed on the correct* bill} \div \text{Total revenue for Local Minutes of Use collected during the month})}{\text{Total revenue for Local Minutes of Use collected during the month}} \times 100</math></p>	
<p><b>Exclusions:</b> None</p>	
<p><b>Product Reporting:</b></p> <ul style="list-style-type: none"> <li>• UNE Loops (including Existing Analog Loops <sup>NOTE 1</sup> and Existing Resale Services – Residence <sup>NOTE 1</sup>)</li> <li>• Reciprocal Compensation (MOU)</li> </ul>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</li> </ol>

## Database Updates

### DB-1 – Time to Update Databases

<b>Purpose:</b> Evaluates the time required for updates to the databases of LIDB and Directory Builder.	
<b>Description:</b> <ul style="list-style-type: none"> <li>• Measures the average time required to update the databases of LIDB and the directory database updating system.</li> <li>• Includes all database updates as specified under Disaggregation Reporting completed during the reporting period.</li> </ul>	
<b>Reporting Period:</b> One month	<b>Unit of Measure:</b> Seconds
<b>Reporting Comparisons:</b> <ul style="list-style-type: none"> <li>• DB-1B-LIDB: Combined results for all CenturyLink QC Retail, Reseller CLEC and Facilities Based CLEC updates;</li> <li>• DB-1C-1-Listings: Combined results for all Provider types including CenturyLink QC Retail, Reseller CLEC, and Facilities Based CLEC, ILEC and Unknown Provider, Electronically Submitted, Electronically Processed updates. <small>NOTE 1</small></li> </ul>	<b>Disaggregation Reporting:</b> DB-1B: LIDB for CenturyLink QC Retail, Reseller CLEC and Facilities Based CLEC – Multi state region-wide level  DB-1C-1: Listings for all Provider types including CenturyLink QC Retail, Reseller CLEC, and Facilities Based CLEC, ILEC and Unknown Provider, Electronically Submitted, Electronically Processed– Sub-region applicable to state
<b>Formula:</b> $\frac{\sum[(\text{Date and Time of database update for each database update as specified under Disaggregation Reporting in the reporting period}) - (\text{Date and Time of submissions of data for entry into the database for each database update as specified under Disaggregation Reporting in the reporting period})]}{\text{Total database updates as specified under Disaggregation Reporting completed in the reporting period}}$	
<b>Exclusion:</b> Invalid start/stop dates/times.	
<b>Product Reporting:</b> Not applicable (Reported by database type)	<b>Standards:</b> Diagnostic
<b>Availability:</b> Available	<b>Notes:</b> <ol style="list-style-type: none"> <li>1. Because they cannot be separated, results for CenturyLink QC Retail, Reseller CLEC, Facilities-based CLECs, ILEC and Unknown Provider updates are reported combined.</li> </ol>

## Network Performance

### NI-1 – Trunk Blocking

<p><b>Purpose:</b> Evaluates factors affecting completion of calls from CenturyLink QC end offices to CLEC end offices, compared with the completion of calls from CenturyLink QC end offices to other CenturyLink QC end offices, focusing on average busy-hour blocking percentages in interconnection or interoffice final trunks.</p>	
<p><b>Description:</b> Measures the percentage of trunks blocking in interconnection and interoffice final trunks.</p> <ul style="list-style-type: none"> <li>Includes blocking percentages on all direct final and alternate final interconnection and interoffice trunk groups that are in service during the reporting period, subject to exclusions specified below.</li> </ul>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent Blockage</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate, individual CLEC, and CenturyLink QC Interoffice trunk blocking results.</p>	<p><b>Disaggregation Reporting:</b> Statewide level. Reports the percentage of trunks blocking in interconnection final trunks, reported by:</p> <ul style="list-style-type: none"> <li>NI-1A Interconnection (LIS) trunks to CenturyLink QC tandem offices, with TGSR-related exclusions applied as specified below;</li> <li>NI-1B LIS trunks to CenturyLink QC end offices, with TGSR-related exclusions applied as specified below;</li> <li>NI-1C LIS trunks to CenturyLink QC tandem offices, without TGSR-related exclusions;</li> <li>NI-1D LIS trunks to other CenturyLink QC end offices, without TGSR-related exclusions.</li> </ul>
<p><b>Formula:</b>  <math display="block">\{[\sum(\text{Blockage in Final Trunk Group of Specified Type}) \times (\text{Number of Circuits in Trunk Group})] \div (\text{Total Number of Final Trunk Circuits in all Final Trunk Groups})\} \times 100</math> </p> <p>Explanation: Actual average percentage of trunk blockage is calculated by dividing the equivalent average number of trunk circuits blocking by the total number of trunk circuits in final trunks of the type being measured.</p>	
<p><b>Exclusions:</b> For NI-1A and NI-1B only:</p> <ul style="list-style-type: none"> <li>Trunk groups, blocking in excess of one percent in the reporting period, for which:             <ul style="list-style-type: none"> <li>A Trunk Group Service Request (TGSR)<sup>NOTES 1 &amp; 2</sup> or the equivalent (if replaced by another process) has been issued in the reporting period; or</li> <li>CLECs do not submit, within 20 calendar days of receiving a TGSR or equivalent:                 <ul style="list-style-type: none"> <li>Responsive ASRs (or have ASRs pending that are delayed for CLEC reasons <sup>NOTE 3</sup>);</li> <li>Trouble Reports; or</li> <li>Notification of traffic re-routing (as described in Note 1 below).</li> </ul> </li> </ul> </li> </ul>	

**NI-1 – Trunk Blocking (Continued)**

For NI-1A, NI-1B, NI-1C, and NI-1D:

- a) Trunk groups, blocking in excess of one percent in the reporting period, for which CenturyLink QC can identify, in time to incorporate in the regular reporting of this measurement, the cause as being attributable to:
  - Trunk group out-of-service conditions arising from cable cuts, severe weather, or force majeure circumstances;
  - The CLEC placing trunks in a “busy” condition;
- a) Lack of interconnection facilities to fulfill LIS requests for which the CLEC did not provide a timely forecast to CenturyLink QC. (This portion of the exclusion is limited to being applied in (a) the month the LIS requests could not be fulfilled, due to lack of facilities, and (b) each month thereafter up to the month following facility availability OR up to five months after the month the LIS requests could not be fulfilled, whichever is sooner <sup>NOTE 4</sup>); or
- b) Isolated incidences of blocking, about which CenturyLink QC provides notification to the CLEC, that (a) are not recurring or persistent (affecting the same trunk groups), (b) do not warrant corrective action by CLEC or CenturyLink QC, and (c) thus, do not require an actionable TGSR.

- Trunk groups recently activated that have not been in service for a full “20-high-day, busy hour” review period.
- Toll trunks, non-final trunks, and trunks that are not connected to the public switched network.
- One-way trunks originating at CLEC end offices.
- CenturyLink QC official services trunks, local interoffice operator and directory assistance trunks, and local interoffice 911/E911 trunks.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

**Product Reporting:**  
LIS Trunks

- Standards:** Diagnostic, with retail comparative results also reported as specified below for NI-1A and NI-1B:
- NI-1A: Comparison with CenturyLink QC Interoffice Trunks to tandems
  - NI-1B: Comparison with CenturyLink QC Interoffice Trunks to end offices

**Availability:**  
Available

- Notes:**
1. CenturyLink QC uses TGSRs (or equivalent, as explained above under “Exclusions”) to notify CLECs when trunk blocking exceeds standard thresholds or is determined to be persistent. To respond properly to TGSRs, a CLEC must (a) submit within 20 days ASRs to provide necessary trunk augmentations to avoid further blocking, (b) notify CenturyLink QC within 20 days that it is initiating a Trouble Report where CenturyLink QC traffic routing problems are causing the blocking referenced by the TGSR, or (c) notify CenturyLink QC that the CLEC will undertake its own re-routing of traffic within 20 days to alleviate the blocking.
  2. The TGSR-related exclusion is applied in the month in which the TGSR is issued and in the month in which the above-specified 20-day response period ends. Thus, any trunk group excluded in one month

**NI-1 – Trunk Blocking (Continued)**

	<p>will not be excluded in the next month, unless there is (a) a 20-day period following a TGSR ends in that month, (b) there is another TGSR applicable to the next month for the same trunk group or (c) an exception documented, in lieu of issuing a subsequent TGSR, where the CLEC's response to the previous TGSR indicated that, for its own reasons, it plans to take no action at any time to augment the trunk group.</p> <p>3. CLEC delays are reflected by CLEC-initiated order supplements that move the due date later.</p> <ul style="list-style-type: none"><li>a. CenturyLink QC-initiated due date delays, including supplements made pursuant to CenturyLink QC requests to delay due dates, shall not be counted as CLEC delays in this measurement.</li><li>b. CenturyLink QC-initiated due date changes to earlier dates that the CLEC does not meet shall not be counted as a CLEC delay in this measurement unless the earlier dates were mutually agreed-upon.</li><li>c. CLEC delays (e.g., "customer not ready" in advance of a due date) that do not contribute to a CenturyLink QC-established due date being missed shall not be counted as a CLEC delay in this measurement.</li></ul> <p>4. The limitation on part (3) of this exclusion is intended to bound its applicability to a period of time that treats the unforecasted ASR as if it were, in effect, the first forecast for the facilities needed.</p> <ul style="list-style-type: none"><li>a. Given that forecast advance intervals are currently six months, this provision allows the exclusion to apply for no longer than that period of time.</li><li>b. Nevertheless, this limitation to the exclusion also recognizes that facilities may become available sooner and, if so, reduces the limitation accordingly. In that context, this limitation recognizes that, absent a CLEC forecast, CenturyLink QC still retains a responsibility to provide facilities for the ASR, although in a longer timeframe than for ASRs covered by forecasts.</li><li>c. This limitation may change depending on the outcome of separate workshops dealing with issues of interconnection forecasting.</li></ul>
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## Collocation

### CP-2 – Collocations Completed within Scheduled Intervals

**Purpose:**

Evaluates the extent to which CenturyLink QC completes collocation arrangements for CLECs within the standard intervals or intervals established in interconnection agreements.

**Description:**

Measures the percentage of collocation applications that are completed within standard intervals, including intervals set forth in interconnection agreements.

- Includes all collocations of types specified herein that are assigned a [Ready for Service Date \(RFS\) date](#) by CenturyLink QC and that are completed within the reporting period, including those with CLEC-requested RFS dates longer than the standard interval and those with extended RFS dates negotiated with the CLEC (including supplemented collocation orders that extend the RFS date) subject to exclusions specified below. Collocation types included are: physical cageless, physical caged, shared physical caged, physical-line sharing, cageless-line sharing, and virtual. <sup>NOTE 1</sup>
- The Collocation Application Date is the date CenturyLink QC receives from the CLEC a complete and valid application for collocation. In cases where the CLEC's collocation application is received by CenturyLink QC on a weekend or holiday, the Collocation Application Date is the next [business day](#) following the weekend or holiday.
- Major Infrastructure Modifications are defined as conditioning the collocation space, obtaining permits, and installing DC power plant, standby generators, heating, venting or air conditioning equipment.
- A collocation arrangement is counted as met under this measurement if its RFS date is met.
- Establishment of RFS Dates: RFS dates are established as follows, except where interconnection agreements require different intervals, in which case the intervals specified in the interconnection agreements apply:
  - **Collocation Applications with Timely Quote Acceptance and, for Virtual Collocations, also with Timely Equipment Ready** – for collocation applications where the CLEC accepts the quote in seven or fewer calendar days after the quote date and, for virtual collocations, where the CLEC provides the equipment to be collocated to CenturyLink QC 53 calendar days or less after the Collocation Application Date, the RFS date shall be:
    - **Forecasted Collocations**: 90 calendar days after the Collocation Application Date for physical collocations for which the CLEC provides a complete forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
    - **Unforecasted Collocations**: 120 calendar days after the Collocation Application Date for physical collocations for which the CLEC does not provide a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
  - **Collocation Applications with Late Quote Acceptance and, for Virtual Collocations, also with Timely Equipment Ready** – for collocation applications where the CLEC accepts the quote in eight or more calendar days after the quote date and, for virtual collocations, where the CLEC provides the equipment to be

## CP-2 – Collocations Completed within Scheduled Intervals (continued)

collocated to CenturyLink QC 53 calendar days or less after the Collocation Application Date, the RFS date shall be:

- **Forecasted Collocations**: 90 calendar days after the quote acceptance date for collocations for which the CLEC provides a complete forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
- **Unforecasted Collocations**: 120 calendar days after the quote acceptance date for collocations for which the CLEC does not provide a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
- **Virtual Collocation Applications with Timely Quote Acceptance and Late Equipment Ready** – for virtual collocation applications where the CLEC (1) accepts the quote in seven or fewer calendar days after the quote date and (2) provides the equipment to be collocated to CenturyLink QC more than 53 calendar days after the Collocation Application Date, the RFS date shall be:
  - **Forecasted Collocations**: 45 calendar days after the equipment is provided to CenturyLink QC, for collocations for which the CLEC provides a complete forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
  - **Unforecasted Collocations**: 75 calendar days after the equipment is provided to CenturyLink QC, for collocations for which the CLEC does not provide a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
- **Virtual Collocation Applications with Late Quote Acceptance and Late Equipment Ready** – for virtual collocation applications where the CLEC (1) accepts the quote in eight or more calendar days after the quote date and (2) provides the equipment to be collocated to CenturyLink QC more than 53 calendar days after the Collocation Application Date, the RFS date shall be:
  - **Forecasted Collocations**: 45 calendar days after the equipment is provided to CenturyLink QC, for collocations for which the CLEC provides a complete forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
  - **Unforecasted Collocations**: 75 calendar days after the equipment is provided to CenturyLink QC, for collocations for which the CLEC does not provide a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.
- **All Collocations (physical, virtual, forecasted, or unforecasted) requiring Major Infrastructure Modifications**: the later of (1) up to 150 calendar days (as specified in the quote) after the Collocation Application Date, or (2) for virtual collocations, 45 calendar days following the date equipment to be collocated is provided to CenturyLink QC for collocations in which Major Infrastructure Modifications are required. CenturyLink QC will provide to the CLEC, as part of the quotation, the need for, and the duration of, such extended intervals.
- When a CLEC submits six (6) or more Collocation applications in a one-week period in any state, completion intervals will be individually negotiated. These collocation arrangements will be included in CP-2A, -2B, or -2C according to the criteria specified below for these measurements.
- Where there is a CLEC-caused delay, the RFS Date is rescheduled.

**CP-2 – Collocations Completed within Scheduled Intervals (continued)**

<ul style="list-style-type: none"> <li>Where CLECs do not accept the quote within thirty calendar days of the quote date, the application is considered expired.</li> </ul>	
<p><b>CP-2A Forecasted Collocations:</b> Measures collocation installations for which CLEC provides a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.</p>	
<p><b>CP-2B Non-Forecasted and Late Forecasted Collocations:</b> Measures collocation installations for which CLEC does not provide a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.</p>	
<p><b>CP-2C All Collocations requiring Major Infrastructure Modifications and Collocations with intervals longer than 120 days:</b> Measures all collocation installations requiring Major Infrastructure Modifications and collocations for which the RFS date is more than 120 calendar days after the Collocation Application Date.</p>	
<p><b>Reporting Period:</b> One month</p>	<p><b>Unit of Measure:</b> Percent</p>
<p><b>Reporting Comparisons:</b> CLEC aggregate and individual CLEC results</p>	<p><b>Disaggregation Reporting:</b> Statewide level.</p>
<p><b>Formula:</b> (for CP-2A, CP-2B and CP-2C)  <math display="block">\left[ \frac{\text{Count of Collocations for which the RFS is met}}{\text{Total Number of Collocations Completed in the Reporting Period}} \right] \times 100</math></p>	
<p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>RFS dates missed for reasons beyond CenturyLink QC's control.</li> <li>Cancelled or expired requests.</li> </ul>	
<p><b>Product Reporting:</b> None</p>	<p><b>Standards:</b> Diagnostic</p>
<p><b>Availability:</b> Available</p>	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>Collocations covered by this measurement are central office related. As additional types of central office collocation are defined and offered, they will be included in this measurement. Non-central office-based types of collocation (such as remote collocation and field connection points) will be considered for either inclusion in this measurement, or in new, separate measurements, after the terms, conditions, and processes for such collocation types become finalized, accepted, mature (i.e., six months of experience from first installations), and ordered in volumes warranting reporting (i.e., consistently more than two per month in any state).</li> </ol>

## DEFINITIONS OF TERMS

**Application Date (and Time)** – The date (and time) on which CenturyLink QC receives from the CLEC a complete and accurate local service request (LSR) or access service request (ASR) or retail order, subject to the following:

- For the following types of requests/orders, the application date (and time) is the start of the next business day:
  1. LSRs and ASRs received after 3:00PM MT for Designed Services and Local Number Portability (except non-designed, flow-through LNP).
  2. Retail orders received after 3:00 PM local time for Designed Services.
  3. LSRs received after 7:00PM MT for Unbundled Loops.
- For all types of orders that are received from Friday at 7:00 PM MT through Sunday, or on holidays, and do not flow through, the application date (and time) is the next, non-weekend business day.

**Bill Date** – The date shown at the top of the bill, representing the date on which CenturyLink QC begins to close the bill.

**Blocking** – Condition on a telecommunications network where, due to a maintenance problem or an traffic volumes exceeding trunking capacity in a part of the network, some or all originating or terminating calls cannot reach their final destinations. Depending on the condition and the part of the network affected, the network may make subsequent attempts to complete the call or the call may be completely blocked. If the call is completely blocked, the calling party will have to re-initiate the call attempt.

**Business Day** – Workdays that CenturyLink QC is normally open for business. Business Day = Monday through Friday, excluding weekends and CenturyLink QC published Holidays including New Year's Day, Memorial Day, July 4<sup>th</sup>, Labor Day, Thanksgiving, Christmas, and such additional holidays when implemented in all Interconnection Agreements. Individual measurement definitions may modify (typically expanding) this definition as described in the Notes section of the measurement definition.

**Cleared Trouble Report** – A trouble report for which the trouble has been cleared, meaning the customer is "back in service".

**Closed Trouble Report** – A trouble report that has been closed out from a maintenance center perspective, meaning the ticket is closed in the trouble reporting system following repair of the trouble.

**Common Transport** – Trunk groups between tandem and end office switches that are shared by more than one carrier, often including the traffic of both the ILEC and several CLECs.

**Completion** – The time in the order process when the service has been provisioned and service is available.

**Completion Notice** – A notification the ILEC provides to the CLEC to inform the CLEC that the requested service order activity is complete.

**Coordinated Customer Conversion** -- Orders that have a due date negotiated between the ILEC, the CLEC, and the customer so that work activities can be performed on a coordinated basis under the direction of the receiving carrier.

**Customer Requested Due Date** – A specific due date requested by the customer which is either shorter or longer than the standard interval or the interval offered by the ILEC.

## DEFINITIONS OF TERMS (continued)

**Customer Trouble Reports** – A report that the carrier providing the underlying service opens when notified that a customer has a problem with their service. Once resolved, the disposition of the trouble is changed to closed.

**Dedicated Transport** – A network facility reserved to the exclusive use of a single customer, carrier or pair of carriers used to exchange switched or special, local exchange, or exchange access traffic.

**Delayed Order** – An order which has been completed after the scheduled due date and/or time.

**DS-1** – Digital Service Level 1. Service provided at a digital signal speed of 1.544 Mbps.

**Due Date** – The date provided on the Firm Order Confirmation (FOC) the ILEC sends the CLEC identifying the planned completion date for the order.

**End Office Switch** – A switch from which an end users' exchange services are directly connected and offered.

**Existing Analog Loops** – Refers to the Product definition under UNE Forbearance Amendment, Attachment 1, Section 2, UNE Analog Loops.

**Existing Resale Services** – Refers to the Product definition under UNE Forbearance Amendment, Attachment 1, Section 1, Resale Provisions.

**Final Trunk Groups** – Interconnection and interoffice trunk groups that do not overflow traffic to other trunk groups when busy.

**Firm Order Confirmation (FOC)** – Notice the ILEC sends to the CLEC to notify the CLEC that it has received the CLECs service request, created a service order, and assigned it a due date.

**Flow-Through** – The term used to describe whether a LSR electronically is passed from the OSS interface system to the ILEC legacy system to automatically create a service order. LSRs that do not flow through require manual intervention for the service order to be created in the ILEC legacy system.

**Interval Zone 1/Zone 2** – Interval Zone 1 areas are wire centers for which CenturyLink QC specifies shorter standard service intervals than for Interval Zone 2 areas.

**Installation** – The activity performed to activate a service.

**Installation Troubles** – A trouble, which is identified after service order activity and installation, has completed on a customer's line. It is likely attributable to the service activity (within a defined time period).

**Interconnection Trunks** – A network facility that is used to interconnect two switches generally of different local exchange carriers

**Inward Activity** – Refers to all orders for new or additional lines/circuits. For change order types, additional lines/circuits consist of all C orders with "I" and "T" action coded line/circuit USOCs that represent new or additional lines/circuits, including conversions from retail to CLEC and CLEC to CLEC.

**Jeopardy** – A condition experienced in the service provisioning process which results potentially in the inability of a carrier to meet the committed due date on a service order

**Jeopardy Notice** – The actual notice that the ILEC sends to the CLEC when a jeopardy has been identified.

**Lack of Facilities** – A shortage of cable facilities identified after a due date has been committed to a customer, including the CLEC. The facilities shortage may be identified during the inventory assignment process or during the service installation process, and typically triggers a jeopardy.

**Local Exchange Traffic** – Traffic originated on the network of a LEC in a local calling area that terminates to another LEC in a local calling area.

## DEFINITIONS OF TERMS (continued)

**Local Number Portability (formerly defined under Permanent Number Portability and also known as – Long Term Number Portability)** – A network technology which allows end user customers to retain their telephone number when moving their service between local service providers. This technology does not employ remote call forwarding, but actually allows the customer's telephone number to be moved and redefined in the network of the new service provider. The activity to move the telephone number is called "porting."

**Local Service Request (LSR)** – Transaction sent from the CLEC to the ILEC to order services or to request a change(s) be made to existing services.

**MSA/Non-MSA** – Metropolitan Statistical Area is a government defined geographic area with a population of 50,000 or greater. Non-Metropolitan Statistical Area is a government defined geographic area with population of less than 50,000. CenturyLink QC depicts MSA Non-MSA based on NPA NXX. Where a wire center is predominantly within an MSA, all lines are counted within the MSA.

**Mechanized Bill** – A bill that is delivered via electronic transmission.

**Plain Old Telephone Service (POTS)** – Refers to basic 2-wire, non-complex analog residential and business services. Can include feature capabilities (e.g., CLASS features).

**Projects** – Service requests that exceed the line size and/or level of complexity which would allow for the use of standard ordering and provisioning processes. Generally, due dates for projects are negotiated, coordination of service installations/changes is required and automated provisioning may not be practical.

**Query Types** – Pre-ordering information that is available to a CLEC that is categorized according to standards issued by OBF and/or the FCC.

**Ready For Service (RFS)** – The status achieved in the installation of a collocation arrangement when all "operational" work has been completed. Operational work consists of the following as applicable to the particular type of collocation:

- Cage enclosure complete;
- DC power is active (including fuses available, BDFB [Battery Distribution Fuse Board] in place, and cables between the CLEC and power terminated);
- Primary AC outlet in place;
- Cable racking and circuit terminations are complete (e.g. fiber jumpers placed between the Outside Plant Fiber Distribution Panel and the Central Office Fiber Distribution Panel serving the CLEC).
- The following items complete, subject to the CLEC having made required payments to CenturyLink QC (e.g., final payment): (If the required CLEC payments have not been made, the following items are not required for RFS):
  - Key turnover made available to CLEC.
  - APOT/CFA complete, as defined/required in CLEC's interconnection agreement, and
  - Basic telephone service and other services and facilities complete, if ordered by CLEC in time to be provided on the scheduled RFS date (per CenturyLink QC's published standard installation intervals for such telephone service).

**Ready for Service Date (RFS date)** – The due date assigned to a collocation order (typically determined by regulatory rulings, contract terms, or negotiations with CLEC) to indicate when collocation installation is scheduled to be ready for service, as defined above.

**Reject** – A status that can occur to a CLEC submitted local service request (LSR) when it does not meet certain criteria. There are two types of rejects: (1) syntax, which occur if required fields are not included in the LSR; and (2) content, which occur if invalid data is provided in a field. A rejected service request must be corrected and re-submitted before provisioning can begin.

## DEFINITIONS OF TERMS (continued)

**Repeat Report** – Any trouble report that is a second (or greater) report on the same telephone number/circuit ID and at the same premises address within 30 days. The original report can be any category, including excluded reports, and can carry any disposition code.

**Service Group Type** – The designation used to identify a category of similar services, e.g., UNE loops.

**Service Order** – The work order created and distributed in ILECs systems and to ILEC work groups in response to a complete, valid local service request.

**Service Order Type** – The designation used to identify the major types of provisioning activities associated with a local service request.

**Standard Interval** – The interval that the ILEC publishes as a guideline for establishing due dates for provisioning a service request. Typically, due dates will not be assigned with intervals shorter than the standard. These intervals are specified by service type and type of service modification requested. ILECs publish these standard intervals in documents used by their own service representatives as well as ordering instructions provided to CLECs in the CenturyLink QC Standard Interval Guidelines.

**Subsequent Reports** – A trouble report that is taken in relation to a previously-reported trouble prior to the date and time the initial report has a status of “closed.”

**Tandem Switch** – Switch used to connect and switch trunk circuits between and among Central Office switches.

**Time to Restore** – The time interval from the receipt, by the ILEC, of a trouble report on a customer’s service to the time service is fully restored to the customer.

**Unbundled Loop** - The Unbundled Loop is a transmission path between a CenturyLink QC Central Office Distribution Frame, or equivalent, and the Loop Demarcation Point at an end user premises. Loop Demarcation Point is defined as the point where CenturyLink QC owned or controlled facilities cease, and CLEC, end user, owner or landlord ownership of facilities begins.

## GLOSSARY OF ACRONYMS

<b>ACRONYM</b>	<b>DESCRIPTION</b>
ADSL	Asymmetric Digital Subscriber Line
ASR	Service Request (processed via Exact system)
BRI	Basic Rate Interface (type of ISDN service)
CKT	Circuit
CLEC	Competitive Local Exchange Carrier
CO	Central Office
CPE	Customer Premises Equipment
CSR	Customer Service Record
DB	Database
DS1	Digital Service 1
EELS	Enhanced Extended Loops
EXACT	Exchange Access, Control, & Tracking
FOC	Firm Order Confirmation
GUI	Graphical User Interface
HDSL	High-Bit-Rate Digital Subscriber Line
HICAP	High Capacity Digital Service
IEC	Interexchange Carrier
ILEC	Incumbent Local Exchange Carrier
INP	Interim Number Portability
IOF	Interoffice Facilities (refers to trunk facilities located between CenturyLink QC central offices)
ISDN	Integrated Services Digital Network
IMA	Interconnect Mediated Access
LIDB	Line Identification Database
LIS	Local Interconnection Service Trunks
LNP	Local Number Portability
LSR	Local Service Request
N, T, C	Service Order Types – N (new), T (to or transfer), C (change)
OOS	Out of service (type of trouble condition)
OSS	Operations Support Systems
PON	Purchase Order Number
POTS	Plain Old Telephone Service
RFS	Ready for Service (refers to collocation installations)
SOP	A service order processor
TN	Telephone Number
UNE	Unbundled Network Element
XDSL	(X) Digital Subscriber Line. (The "X" prefix refers to DSL generically. An "X" replaced by an "A" refers to Asymmetric DSL, and by an "H" refers to High-bit-rate DSL.)

# **EXHIBIT K – Redesigned PAP**

## **CENTURYLINK QC’s PERFORMANCE ASSURANCE PLAN**

### **1.0 Introduction**

1.1 As set forth in this Agreement, Qwest Corporation dba CenturyLink QC (“CenturyLink QC”) and CLEC voluntarily agree to the terms of the following Performance Assurance Plan (“PAP” or “Plan”), prepared in conjunction with Qwest’s application for approval under Section 271 of the Telecommunications Act of 1996 (the “Act”) and subsequently modified in order FCC 19-72, a Memorandum Opinion and Order in WC Docket 18-141 (the “UNE Analog Loop and Resale Forbearance Order”), to offer in-region, interLATA service and as subsequently modified in accordance with the orders issued by the state commission (“Commission”) with statutory authority over telecommunications.

### **2.0 Plan Structure**

2.1 The PAP is a remedy payment and performance-monitoring plan. CenturyLink QC shall be subject to self-executing payments to CLEC for submeasurements, that are designated as “payment eligible” in Section 3.0 and that have parity or benchmark standards, as identified in Interconnection Agreement Exhibit B (Performance Indicator Definitions or “PIDs”), which generate payments (described in Sections 7.0 and 8.0). For measurements and submeasurements (PIDs) that are designated as “diagnostic” in Section 3.0, CenturyLink QC will report their performance results for monitoring purposes.

### **3.0 Performance Measurements**

3.1 Payment-Eligible PIDs and Submeasurements. The performance measurements and submeasurements that are eligible to trigger payments under the PAP and are thus subject to the PAP payment mechanisms are the following:

#### **3.1.1 Payment-Eligible PIDs:**

- PO-5 Firm Order Confirmations (FOCs) on Time
- OP-3 Installation Commitments Met
- OP-4 Installation Interval
- OP-5 New Service Installation Quality
- OP-8 Number Portability Timeliness
- MR-5 All Troubles Cleared w/in 4 Hours
- MR-6 Mean Time to Restore
- MR-7 Repair Repeat Report Rate
- MR-8 Trouble Rate

#### **3.1.2 Payment-Eligible Submeasurements (Products or Services):**

- EEL DS1
- LIS Trunks
- 2-Wire Non-Loaded Loops
- Existing Analog Loops <sup>NOTE 1</sup>
- DS1 Loops
- Sub-Loops – Non-Loaded (includes Existing Analog Loops <sup>NOTE 1</sup>)

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### **CENTURYLINK QC’s PERFORMANCE ASSURANCE PLAN**

- xDSLi Loops
- ADSL Loops
- Existing Resale Services - Residential <sup>NOTE 1</sup>
- LNP (includes Existing Analog Loops <sup>NOTE 1</sup>)

3.2 Performance Standards. There are two types of standards, “parity” and “benchmark.”

3.2.1 Parity standards apply statistical and other related calculations defined in Sections 4.0 through 8.0 to determine whether reported performance results meet parity standards or trigger payments.

3.2.2 Benchmark standards do not apply statistical methodologies, but instead apply a “stare and compare” approach and other calculations defined in Sections 4.0 through 8.0 to determine whether the reported performance results meet benchmarks or trigger payments.

3.2.3 Where applicable elsewhere in the PAP, this provision modifies other provisions and operates as follows: For any benchmark or non-interval parity performance sub-measure, CenturyLink QC shall apply one allowable miss to a sub-measure disaggregation that otherwise would require 100% performance before the performance is considered as non-conforming to standard (1) if at the CLEC-aggregate level, the performance standard is met or (2) where the CLEC-aggregate performance must be 100% to meet the standard, the CLEC-aggregate performance is conforming after applying one allowable miss at that level.

3.3 Diagnostic PIDs.

- GA-1 Gateway Availability – LSR (includes former GA-8)
- GA-3 Gateway Availability – Repair (includes former GA-6)
- GA-4 Gateway Availability – ASR
- GA-7 Timely Outage Resolution – Software
- PO-1 Pre-Order / Order Response Times
- PO-2 Electronic Flow Through
- PO-3 LSR Rejection Notice Interval
- PO-9 Timely Jeopardy Notices
- OP-15 Interval for Orders Delayed Past Due Date
- MR-11 LNP Trouble Reports Cleared
- MR-9 Repair Appointments Met <sup>NOTE 1</sup>
- BI-2 Invoices Delivered within 10 days
- BI-3 Billing Accuracy – Adjustments for Errors
- BI-4 Billing Completeness
- DB-1b Time to Update Databases – LIDB
- DB-1c Time to Update Databases – Listings
- NI-1 Trunk Blocking
- CP-2 Collocations Completed

**EXHIBIT K – Redesigned PAP  
CENTURYLINK QC's PERFORMANCE ASSURANCE PLAN**

NOTE 1: For product reference see 'Definition of Terms' in 'CTL Amended ICA Exhibit B PID'. Reporting and payment eligible period for these products begin 2/2/20 and end 8/2/22 for specific metric categories in Exhibit B PID Version 10.1.

## EXHIBIT K – Redesigned PAP CENTURYLINK QC’s PERFORMANCE ASSURANCE PLAN

### 4.0 Statistical Methodology

4.1 For all submeasurements with benchmark standards (“benchmark submeasurements”), as designated in the PIDs, the determination of CenturyLink QC’s conformance with Plan and PID standards will involve comparing performance levels reported for submeasurements against benchmarks established in the PIDs on a “stare-and-compare” basis (i.e., with no additional statistical methodology applied).

4.2 For all submeasurements with parity standards (“parity submeasurements”), as designated in the PIDs, the determination of CenturyLink QC’s conformance with Plan and PID standards will involve comparing statistical z-scores associated with performance levels reported for submeasurements against statistical critical values as defined in Section 5.0. The calculation of z-scores will be based on a statistical test, called the “modified z-test,” as defined in Section 4.4 below, to determine whether a parity condition exists between the results for CenturyLink QC and for CLEC.

4.3 For the purpose of this Section, the CenturyLink QC results will be the CenturyLink QC monthly retail results as specified in the PIDs.

4.4 The modified z-test shall be applicable if the CLEC sample size is greater than 30 for a given submeasurement. The formula for determining parity using the z-test is:

$$z = \text{DIFF} / \sigma_{\text{DIFF}}$$

Where:

$$\text{DIFF} = M_{\text{CenturyLink QC}} - M_{\text{CLEC}}$$

$$M_{\text{CenturyLink QC}} = \text{CenturyLink QC average or proportion}$$

$$M_{\text{CLEC}} = \text{CLEC average or proportion}$$

$$\sigma_{\text{DIFF}} = \text{square root} [\sigma^2_{\text{CenturyLink QC}} (1/n_{\text{CLEC}} + 1/n_{\text{CenturyLink QC}})]$$

$$\sigma^2_{\text{CenturyLink QC}} = \text{Calculated variance for CenturyLink QC}$$

$$n_{\text{CenturyLink QC}} = \text{number of observations or samples used in CenturyLink QC submeasurement}$$

$$n_{\text{CLEC}} = \text{number of observations or samples used in CLEC submeasurement}$$

In calculating the difference between CenturyLink QC and CLEC performance, the above formula applies when a larger CenturyLink QC value indicates a better level of performance. In cases where a smaller CenturyLink QC value indicates a higher level of performance, the order is reversed, i.e.,  $M_{\text{CLEC}} - M_{\text{CenturyLink QC}}$ .

## **EXHIBIT K – Redesigned PAP CENTURYLINK QC’s PERFORMANCE ASSURANCE PLAN**

4.5 For parity submeasurements for which the number of data points is less than or equal to 30, CenturyLink QC will apply a permutation test to determine statistical significance. For such parity submeasurements reported as percentages, where the number of data points is less than or equal to 30, CenturyLink QC will apply an exact proportions test (a form of permutation testing that applies to metrics reported as percentages).

The permutation test for metrics reported as intervals will be applied to calculate the z statistic using the following logic or an equivalent approach that would yield the same result:

- Calculate the z statistic for the actual arrangement of the data.
- Pool and mix the CLEC and CenturyLink QC data sets.
- Perform the following 1000 times:
  - Randomly subdivide the pooled data sets into two pools, one the same size as the original CLEC data set ( $n_{CLEC}$ ) and one reflecting the remaining data points, which is equal to the size of the original CenturyLink QC data set or  $n_{CenturyLink\ QC}$ .
  - Compute and store the z-test score ( $Z_s$ ) for this sample.
- Count the number of times the z statistic for a permutation of the randomly subdivided data is greater than the actual z statistic.
- Compute the fraction (p-value) of permutations for which the z statistic for the rearranged data is greater than the z statistic for the actual samples.

The exact proportions permutation test for metrics reported as percentages will be applied to calculate the z statistic using the following logic or an equivalent approach that would yield the same result:

- Calculate the combined (CLEC and Retail) percentage result for the metric.
- Identify the possible configurations of Retail metric results and CLEC metric results that could exist in the actual data and yield more extreme differences between CLEC and Retail results, while still yielding the same combined CLEC-Retail result.
- For each such configuration of results that yields a more extreme difference than seen in the actual reported results, calculate the probability of observing that more-extreme result, given the actual combined result.
- Calculate the sum of the probabilities of the more-extreme data configurations. This sum constitutes the p-value that represents the total probability of observing a more extreme difference between CLEC and Retail results than seen in the actual data.

If the resulting p-value is greater than  $\alpha$  (alpha), the significance level of the test, the hypothesis of no difference is not rejected, and the test is passed. Alpha = 0.05, except as specified elsewhere herein. For individual month testing for performance measurements involving LIS trunks and DS-1s that are Unbundled Loops (performance measurements: OP-3D/E, OP-4D/E, OP-5, MR-5A/B, MR-7D/E, and MR-8) with sample sizes of 1-10,

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alpha = 0 .15. When submeasurements disaggregate to zone 1 and zone 2, the CLEC volumes in both zones shall be combined for purposes of statistical testing.

### 5.0 Critical Z-Value

5.1 The following table shall be used to determine the critical z-value for any submeasurements when the CLEC sample size is greater than 30. It is based on the monthly business volume of the CLEC for the particular performance submeasurements for which statistical testing is being performed.

**TABLE 1: CRITICAL Z-VALUE**

CLEC volume (Sample size)	Critical Z-Value
31-150	1.645
151-300	2.0
301-600	2.7
601-3000	3.7
3001 and above	4.3

5.2 When the CLEC sample size is greater than 30, CenturyLink QC’s performance to a CLEC for a relevant parity submeasurement will be considered to be “in parity” in a month when the z-score calculated pursuant to Section 4.4 is equal to or less than the appropriate critical z-value identified in Section 5.1, Table 1, except as allowed in Section 3.2.3.

### 6.0 Non-Conformance Definitions and Payment

6.1 Each month’s reported performance results for payment-eligible submeasurements will be evaluated to determine whether established standards (benchmark or parity) have not been met.

6.2 Based on the evaluation completed pursuant to Section 6.1 above for the current and prior two months, levels of non-conformance will be determined according to the following definitions, for a given submeasurement:

- **Level 3 Non-Conformance** exists for any month in which CenturyLink QC fails to meet the established standard to the extent defined for a Level 3 non-conformance in Section 6.3, Table 2, below.
- **Level 2 Non-Conformance** exists for any month, in which a Level 3 non-conformance is not found, that fails to meet the established standard for two consecutive months, each to the extent defined for Level 2 in Section 6.3, Table 2, below.
- **Level 1 Non-Conformance** exists for any month, in which a Level 2 or Level 3 non-conformance is not found, that fails to meet the established standard for

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three or more consecutive months, each to the extent defined for Level 1 or Level 2 in Section 6.3, Table 2, below.

6.3 Levels 1, 2, and 3 non-conformance are determined according to the difference (“D<sub>P</sub>” or “D<sub>B</sub>”, as defined in Table 2 and as calculated in 6.3.1 below) between the reported submeasurement performance level provided to CLEC and the established standard.

**TABLE 2**

<b>PARITY STANDARDS</b>	
<b>Difference from Standard</b>	<b>Level</b>
0 <  D <sub>P</sub>   < 0.5	Level 1
0.5 <=  D <sub>P</sub>   < 2	Level 2
D <sub>P</sub>   >= 2	Level 3
<b>BENCHMARKS as PROPORTIONS</b>	
<b>Difference from Standard</b>	<b>Level</b>
0 < D <sub>B</sub> < 5	Level 1
5 <= D <sub>B</sub> < 15	Level 2
D <sub>B</sub> >= 15	Level 3
<b>BENCHMARKS as MEANS or AVERAGES</b>	
<b>Difference from Standard</b>	<b>Level</b>
0 < D <sub>B</sub> < 25	Level 1
25 <= D <sub>B</sub> < 50	Level 2
D <sub>B</sub> >= 50	Level 3

6.3.1 The difference, “D<sub>P</sub>” or “D<sub>B</sub>,” is calculated as follows for a given submeasurement:

For PIDs with Parity Standards, and given Z<sup>T</sup> (the z-score as calculated per Section 4.0):

$$D_P = \frac{R - C}{S}$$

where **R** is CenturyLink QC’s performance level (mean, proportion, or rate) provided for the retail comparative product or service; **C** is CenturyLink QC’s performance level delivered to CLEC; and **S** is the calculated statistical standard deviation corresponding to Z<sup>T</sup> calculated for this comparison (and **S** is the same as “σ<sub>CenturyLink QC</sub>,” as found in Section 4.4 above). Thus, D<sub>P</sub> reflects the difference between CenturyLink QC and CLEC performance

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levels, in terms of the number of standard deviations (expressed in the same units of measure – i.e., time intervals or percentage points – as the performance results used in the above formula) that this difference represents.

This calculation assumes that higher values of *R* and *C* mean better service (“higher is better”). For submeasurements where higher values mean worse service, the subtraction in the numerator is reversed. In other words, where higher is better, the numerator should be positive when the performance delivered to CLEC is worse than the performance provided for the retail comparative.

For PIDs with Benchmark Standards:

$$D_B = \frac{C - B}{B}$$

where *C* is CenturyLink QC’s performance level (mean, proportion, or rate) delivered to CLEC, and *B* is the benchmark value established for the submeasurement in the PIDs.

This calculation assumes that higher values of *C* and *B* mean better service. For submeasurements where higher values mean worse service, the subtraction in the numerator is reversed. In other words, the numerator should be positive when the performance levels delivered to CLEC are worse than the benchmark. Thus, *D<sub>B</sub>* reflects the difference between CenturyLink QC and CLEC performance levels, in terms of the number of benchmark increments (expressed in the same units of measure – i.e., time intervals or percentage points – as the performance results used in the above formula) that this difference represents.

6.3.2 The allowances set forth in Section 3.2.3 shall apply, such that submeasurements that qualify for those allowances shall be considered to be conforming to PAP and PID standards.

6.4 Payments to CLEC are triggered only when the reported submeasurement performance level for the month being evaluated has failed to meet its established benchmark or parity standard and is non-conforming at one of the three levels defined in Section 6.2 above. The calculation methodology for payments thus triggered is set forth in Section 7.0 below.

6.5 For all parity submeasurements with sample sizes less than or equal to 30, CenturyLink QC shall calculate and report payments based upon the permutation test or the exact proportions test as set out in Section 4.5.

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6.6 CenturyLink QC’s performance to a CLEC for a given submeasurement will be considered to be conforming with PAP and PID standards in any month where the CLEC performance result is “better” than or equal to the benchmark or retail comparative performance result as defined in Sections 6.1, after applying allowances, if any, under 3.2.3.

6.7 Where the CLEC performance is “worse” than the retail comparative performance result, parity submeasurements shall rely on the statistical methodology set forth in Sections 4.0 and 5.0 of this Plan, to determine whether the comparison of CLEC and retail comparative constitutes statistical parity.

### **7.0 Calculation of Payments to CLEC**

7.1 Payments to CLEC under the PAP are to be made on a per-occurrence basis. The formulas set forth below shall be used to determine the total number of occurrences upon which CenturyLink QC is required to make payments to CLEC.

For percentage submeasurements, the PAP uses the following formula:

CLEC Occurrences = Absolute value of (CLEC result – standard result)  
multiplied by CLEC volume.

For interval submeasurements, the PAP uses the following formula:

CLEC Occurrences = Absolute value of ((CLEC result – standard result)  
divided by the standard result), which is then multiplied by CLEC volume.

#### **7.1.1 Standard Result Applicable from January 1, 2014 forward:**

7.1.1.1 For a benchmark submeasurement, the “standard result” used in the above formulas is the benchmark set forth in the PIDs.

7.1.1.2 For a parity submeasurement, the “standard result” is a calculation of the performance result (average, mean, or percentage, as applicable) that would yield the critical value set forth in Section 5.0.

7.1.2 Standard Result Applicable from July 1, 2013 through December 31, 2013 *(after which this section 7.1.2 expires and may be removed from PAP)*: For the above formulas, for payment-eligible parity submeasurements, the “standard result” used in the above formulas is the average of the prior six months’ retail performance adjusted by the relevant variance factor in Appendix A, Section A-6.1, Table A-2. For submeasurements with a benchmark, the standard is the benchmark.

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7.2 For interval submeasurements, the number of occurrences shall not exceed the CLEC volume for the particular submeasurement.

7.3 If CenturyLink QC’s performance levels delivered to CLEC falls into one of the non-conformance levels defined in Section 6.0 for a payment-eligible submeasurement, CenturyLink QC shall make a per occurrence payment to CLEC as specified in Table 3 below, subject to further modification by escalation payment increments as set forth in Section 8.0. That payment shall be calculated according to the following formula:

$$\text{Payment} = (\text{Applicable per-occurrence payment amount from Table 3 or from Table 4 if applicable}) \times (\text{number of CLEC Occurrences})$$

**TABLE 3: BASE PER OCCURRENCE PAYMENT INCREMENTS**

Non-Conformance Level	Per-Occurrence Payment Increments	
	Colorado & Minnesota	Other States
Level 1	\$225.00	\$150.00
Level 2	\$337.50	\$225.00
Level 3	\$450.00	\$300.00

**8.0 Calculation of Escalation Payments**

8.1 CenturyLink QC’s non-conforming performance for payment-eligible submeasurements shall be subject to escalating per occurrence payments pursuant to Table 4 below.

8.2 Payments for continuous months of non-conforming performance (as defined in Section 6.0) for a particular submeasurement will be made on a per occurrence basis (as defined in Section 7.0) using the dollar amounts specified in Table 4. The dollar amounts escalate depending upon the number of consecutive months for which CenturyLink QC has had non-conforming performance. The dollar amounts specified in Table 4 indicate the total amounts applicable per occurrence for each month with the base or “Month 1” per-occurrence payment increments being those specified in Table 3 of Section 7.0. Payment escalation is capped at Month 12, such that, for continuing non-conformance in Months 13 and beyond, consecutively, the payment amount remains at the level that would apply for Month 12 in accordance with Table 4.

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8.2.1 The escalation of payments for consecutive months of non-conforming service will be matched month for month with de-escalation of payments for every month of conforming service. For example, if CenturyLink QC has four consecutive months at *any* of the three non-conformance levels, it will make payments that escalate from Month 1 to Month 4 as shown in Table 4. If, in the next month (Month 5), service meets the standard, CenturyLink QC makes no payment. A payment “indicator” de-escalates down from Month 4 to Month 3. If CenturyLink QC service is non-conforming in the following month (Month 6), it will make payment at the Month 3 level of Table 4, because that is where the payment “indicator” moved in Month 5. If CenturyLink QC misses again the following month (Month 7), it will make payments at the Month 4 level. If CenturyLink QC’s performance then meets the applicable standard for Months 8, 9 and 10, the payment level will de-escalate to the Month 1 level. The non-conformance level of the current month’s performance, coupled with the escalation month number, determines the payment increment to be used from Table 4.

**TABLE 4: PER-OCCURRENCE PAYMENTS TO CLEC--WITH ESCALATION**

Per Occurrence Measurement Group	Consecutive Months of Non-conforming Performance at Any Level				
	Month 1	Month 2	Month 3	Month 4	Each following month after Month 4 add
<b>Colorado and Minnesota</b>					
Level 1	\$225.00	\$250.00	\$500.00	\$600.00	\$100.00
Level 2	\$337.50	\$362.50	\$612.50	\$712.50	\$100.00
Level 3	\$450.00	\$475.00	\$725.00	\$825.00	\$100.00
<b>Other States</b>					
Level 1	\$150.00	\$175.00	\$350.00	\$450.00	\$100.00
Level 2	\$225.00	\$250.00	\$500.00	\$600.00	\$100.00
Level 3	\$300.00	\$325.00	\$650.00	\$750.00	\$100.00

8.3 All of the payments (100%) shall be made only to those CLECs that have opted into the PAP.

**9.0 The Special Fund *[Applicable only in Colorado which has a PAP Special Fund]***

9.1 Earlier instances of the PAP established the Special Fund, which contained payments generated by the former Tier 2 provisions of the PAP. CenturyLink QC shall keep the remaining balance of Special Fund moneys in an interest-accruing bank account.

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9.2 Potential uses for this fund include: paying a technical advisor for the Commission’s PAP Revision process; and, if the Commission so decides, paying for additional audits of CenturyLink QC’s performance measurement and reporting, and paying other administrative expenses.

9.3 Upon implementation of the PAP, the Commission shall decide how to use the remainder of this fund. The uses shall be competitively neutral efforts in the telecommunications field that do not benefit CenturyLink QC directly.

**10.0 Cap on Total Annual Payments**

10.1 There shall be an annual cap on payments for performance under the PAP as follows:

- Arizona \$67 million
- Colorado \$100 million
- Idaho \$40 million
- Iowa \$36 million
- Minnesota \$100 million
- Montana \$22 million
- Nebraska \$25 million
- New Mexico \$39 million
- North Dakota \$13 million
- South Dakota \$10 million
- Utah \$52 million
- Oregon \$48 million
- Washington \$79 million
- Wyoming \$18 million

10.2 The following shall not count toward the annual cap: any penalties imposed by the Commission; any penalties imposed directly by the PAP for failure to report, failure to report timely, or failure to report accurately; any liquidated damages under another Interconnection Agreement; any interest payments; and any damages in an associated action.

10.3 If CenturyLink QC payments equal or exceed the annual cap for two years in a row or equal or exceed 1/3 of the annual cap in a combination of two consecutive months, the Commission shall have the authority to open a proceeding to request CenturyLink QC to explain the non-conforming performance and show that it did not result from CenturyLink QC’s failure to avoid reasonably foreseeable risks.

**11.0 Timing and Form of Payment**

11.1 All payments to CLEC shall be made on the last business day of the month following the due date of the performance measurement report for the month for which payment is being made.

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11.1.1 Notwithstanding Section 11.1, for Unbundled DS1-Capable Loops and EELs-DS1, CenturyLink QC shall compare for payment purposes the MR-8 calculated payment amount with the sum of the OP-5 and MR-7 calculated payment amounts, for the same performance data month, to determine whether the MR-8 payment amount or the combined OP-5 and MR-7 payment amount is the larger amount. In the event the two amounts are the same, the MR-8 payment amount will be considered to be the larger payment amount. Based on determination of the larger payment amount, CenturyLink QC shall pay either the MR-8 payment amount or both the OP-5 and MR-7 payment amounts. However, since the performance results for OP-5 and MR-7 are available one month later than the MR-8 performance results for the same performance data month, the applicable payments shall be made on the last business day of the month following the due date of the performance report for OP-5 and MR-7, except as allowed in Section 11.5.

11.2 All payments shall be by credits to CLEC bills. CenturyLink QC shall be allowed, after obtaining the individual agreement of CLEC, to make such payments through the use of electronic fund transfers to CLEC. However, once CenturyLink QC and CLEC agree on a method of payment (e.g., wire transfer or check), CenturyLink QC shall not change the method of payment without the permission of CLEC. CenturyLink QC shall be able to offset payments to CLEC with a bill credit applied against any non-disputed charges that are more than 90 days past due.

11.3 CenturyLink QC shall provide monthly payment information at the same time that the performance reports are due. Monthly payment information shall include the payment calculations.

11.3.1 Notwithstanding Section 11.3, for Unbundled DS1-Capable Loops and EELs-DS1, CenturyLink QC shall provide the MR-8 monthly payment information at the same time that the payment information for OP-5 and MR-7 for the same performance data month is due, to allow for the applicable payment determinations for MR-8, OP-5, and MR-7 as stated in Section 11.1.1 above, except as allowed in Section 11.5.

11.4 In the case of late payments and underpayments, CenturyLink QC shall pay interest to CLEC calculated at the current Commission-prescribed customer deposit rate on the amount in question (*i.e., as of May 24, 2013, for Arizona, Colorado, Idaho, Minnesota, New Mexico, North Dakota, Oregon, Washington, and Wyoming*) or, in the absence of a current Commission-prescribed customer deposit rate (*i.e., as of May 24, 2013 for Iowa, Montana, Nebraska, South Dakota, and Utah*), at the U.S. Treasury rate in place at the beginning of the current calendar year. Should CenturyLink QC demonstrate to the relevant CLEC that it overpaid, it shall be able to deduct from future payments in any state in which CLEC has opted into a CenturyLink QC PAP any past overpayment, along with interest calculated at the aforementioned rate for the amount in question.

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11.5 CenturyLink QC may petition the Commission for credits to PAP payments for the recovery of prior PAP payments made, which have been determined to be unnecessary and unjustified by the Commission. Any such request shall only seek recovery of payments made within the prior twelve consecutive months from the date of the petition.

### **12.0 Reporting**

12.1 CenturyLink QC will provide the Commission and CLECs opting into the PAP with a monthly report of CenturyLink QC's performance for the payment-eligible PIDs. These reports shall contain any carry-over payment amounts and calculations as well as the current month's information. CenturyLink QC will collect, analyze, and report performance data for these PID measurements. CenturyLink QC will store such data in easy-to-access electronic form for one year after they have been produced and for an additional two years in an archived format. Any failure to follow these requirements shall be treated as a violation of the PAP integrity requirements discussed in Section 16.4.

12.2 On or before the last business day of each month following the relevant performance or payment period, CenturyLink QC shall post the individual CLEC monthly performance (for payment-eligible and diagnostic PIDs) and payment reports (for payment-eligible PIDs) to a secure part of the PAP website and the aggregate state performance and payment reports to the public part of the PAP website. In addition, CenturyLink QC must officially file with the Commission, one electronic copy in an Excel format, of all CLEC individual monthly reports under seal and one electronic copy in an Excel format of the state aggregate report in the public file. If CLEC requests hard copies of its individual reports, CenturyLink QC should make those hard copies available at no cost to CLEC.

12.3 In the case of late reporting, CenturyLink QC shall make a payment to the state general fund or the equivalent (as directed by the Commission) of \$500 per calendar day for each day the report is late. This amount represents the total payment for missing a reporting deadline, rather than a payment per report and does not count against the cap described in Section 10.1. This payment shall begin on the report due date and continue until the report is actually distributed.

12.4 If any inaccurate reporting is revealed by an audit, CenturyLink QC shall make any payments due to the CLEC as a result of the inaccurate reporting plus an additional payment of 25% of the amount due as a result of the underpayment.

12.5 In addition to the Section 12.4 payment, if as a result of an inaccurate report, any bill over \$25,000 is adjusted upwards by 25% or more, CenturyLink QC shall also incur a late reporting payment as set forth in Section 12.3. This payment shall begin on the report due date and shall continue until the day the discrepancy is resolved.

12.6 If a discrepancy is revealed solely by CenturyLink QC, and CenturyLink QC self-corrects the discrepancy prior to the monthly payment being due, no additional liability shall be assessed. If CenturyLink QC self-corrects the erroneous reports before an audit on the relevant measurements in question begins but after the relevant payment is made, it shall

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be responsible for paying the additional amount owed due to the non-conforming performance as well as interest on this amount at the rate set forth in Section 11.4.

12.7 If a discrepancy is revealed by a CenturyLink QC-CLEC data reconciliation process or any other inquiry, CenturyLink QC shall pay the additional amount owed as well as interest on any late additional amount at the rate set forth in Section 11.4.

12.8 If a CenturyLink QC-CLEC data reconciliation process forces CenturyLink QC to adjust its payment upwards three months in a row, CenturyLink QC must pay the additional amount and an additional penalty to CLEC as if the discrepancy had been revealed by an audit (see Section 13.7) for that third month and for each consecutive month that the CLEC reveals additional payments via data reconciliation.

12.9 If a CenturyLink QC-CLEC data reconciliation process forces CenturyLink QC to adjust its payment upward five times in a calendar year, CenturyLink QC must pay the additional amount and an additional penalty to CLEC as if the discrepancy had been revealed by an audit for that fifth month and for all other months in that calendar year that the CLEC reveals additional payments via data reconciliation.

#### **13.0 Audits of Performance Results**

13.1 CenturyLink QC shall carefully document any and all changes that CenturyLink QC makes to the Performance Measurement and Reporting System. A summary of this change log shall be displayed on a public website dedicated to PAPs. Details shall be made available in a timely manner upon request. The Performance Measurement and Reporting System is defined to include at least: elements of CenturyLink QC's Regulatory Reporting System that constitute the data collection programs (*i.e.*, the software code used by CenturyLink QC to determine which data fields are used and how they are used), the underlying data extracted by the data collection programs and data reference tables (*e.g.*, USOC tables, wire center tables, *etc.*, used in the calculation of measurements), the data staging programs (programming code used to organize and consolidate the data), the calculation programming (the code used to implement the formula defined for a measurement), and the report generation programs (including the report format and report file creation). This change log shall contain, at a minimum, a detailed description of the change (in plain English); the effects of the change, the reason for the change, the dates of notification and of implementation, and whether the change received Commission approval.

13.2 CenturyLink QC shall be allowed to change management processes that improve accuracy or that improve efficiency without sacrificing accuracy of submeasurement results. These changes are at CenturyLink QC's discretion, but also may be subject to other requirements, as applicable, that address change management in the Interconnection Agreement. Omitted or inaccurate changes shall result in CenturyLink QC being required to pay a \$2,500 fine, plus interest at the rate set forth in Section 11.4, accrued from the time the change took effect. The payment of this fine shall go to the state general fund or equivalent (as directed by the Commission), and such payment does not count against the annual cap described in Section 10.1.

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When making any changes to the Performance Measurement and Reporting System in a manner whereby the relevant data cannot be reconstructed under the prior approach, CenturyLink QC shall record the change to the change log and notify CLECs that have interconnection agreements opting into the PAP.

13.3 As part of the data reconciliation process (see Section 13.4 below), CLEC shall have the right to request access to the raw, excluded data and business rules or other basis relied upon by CenturyLink QC to exclude the data from the most recent month's report. The records and data must be turned over, in a mutually-agreeable format within two weeks of the request.

13.4 CLEC may request a mini-audit of the performance measurement results covering CenturyLink QC's performance to CLEC for any payment-eligible and diagnostic submeasurements. However, a CLEC will not be allowed to commence such an audit unless and until (1) CLEC has requested access to the raw data and business rules and attempted to meet with CenturyLink QC to attempt data reconciliation for any discrepancies by presenting its own version of the data calculation and comparing it to CenturyLink QC's to demonstrate the areas in which CenturyLink QC allegedly erred, and (2) CenturyLink QC and CLEC are unable to reach agreement about any alleged discrepancy through the CenturyLink QC-CLEC data reconciliation process. CenturyLink QC must provide the necessary expertise and work in good faith to attempt to answer CLEC concerns. CenturyLink QC's experts must be available for requested meetings to take place within 10 business days of the CLEC request, but CenturyLink QC may attempt to resolve the issue over the phone or via email before holding a face-to-face meeting.

13.5 Upon CLEC request, data files of the CLEC raw data, or any subset thereof, and business rules or other basis used to generate the reports as part of the data reconciliation process will be transmitted, without charge, to CLEC, within two weeks of the request, in a mutually acceptable format, protocol, and transmission medium.

13.6 The scope of the mini-audit allowed under this PAP is limited to the relevant payment-eligible and diagnostic submeasurements that were the subject of and determined to be suspect, through the CenturyLink QC-CLEC data reconciliation process.

13.7 The mini-audit shall be conducted by a qualified independent Auditor (i.e., an auditor that has experience with multiple, prior performance measurement audits in the telecommunications industry) selected by CenturyLink QC and agreed upon by CLEC. CLEC shall pay the Auditor's fees and expenses, and CLEC and CenturyLink QC shall bear their own costs. If a mini-audit identifies a non-conformance that materially affects the results (material being defined as a deficiency that requires an additional payment of at least 10% more than the total amount paid on the submeasurements examined by the mini-audit) by CenturyLink QC, CenturyLink QC shall pay the Auditor's fees and expenses. In addition, CenturyLink QC shall resolve the identified problems and shall pay any applicable payments under the late payment provisions. CenturyLink QC shall also pay other CLECs any appropriate payments and penalties based on problems uncovered in the mini-audit. If

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the Auditor does not identify any non-conformance, CLEC shall not be allowed to request another mini-audit during the six months after the initial mini-audit request; however, CLEC is nevertheless permitted to request CenturyLink QC-CLEC data reconciliation during that time.

13.8 If CLEC proves to the Commission via the dispute resolution process that CenturyLink QC did not work in good faith to resolve the issues prior to the initiation of a mini-audit, the Commission can shift the Auditor’s fees and expenses to CenturyLink QC, and the six-month moratorium on mini-audits shall then be waived.

13.9 *[Applicable to Colorado only, to the extent the Special Fund has a sufficient remaining balance]* The Commission reserves the right to choose to conduct an audit itself, with the assistance of an outside Auditor if it chooses. Such an audit shall be paid for through the Special Fund. If the audit reveals any material non-conformance (as defined above) in CenturyLink QC’s performance reporting, CenturyLink QC shall reimburse the costs of the audit and, where appropriate, shall make applicable payments to CLECs or Special Fund as described above.

### **14.0 Waiver of Payments**

14.1 CenturyLink QC may seek a waiver of the obligation to make payments pursuant to this PAP by seeking an exception on any of the following grounds:

- (1) *Force majeure*, as defined in SGAT Section 5.7 (as to benchmark standards and parity submeasurements).
- (2) A work stoppage (as to benchmark standards and parity submeasurements).
- (3) An act or omission by CLEC that is in bad faith and designed to “game” the payment process; or
- (4) A material failure by CLEC to follow the applicable business rules.

14.2 Such waiver will be sought by CenturyLink QC by petitioning the Commission and providing notice to all CLECs operating in the state.

14.2.1 Prior to petitioning the Commission for a waiver, CenturyLink QC shall provide notice to all affected CLECs and Commission Staff of its intent to seek such waiver.

14.2.2 Within ten days of such notice, CLEC(s) must respond and indicate whether it opposes such waiver request, and if it does oppose, provide a general statement of the basis for such opposition. Within twenty days of such notice, Commission Staff must respond and indicate whether it opposes such waiver request, and if it does oppose, provide a general statement of the basis for such opposition. If CLEC opposes such request, prior to seeking Commission approval, CenturyLink QC and

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CLEC will use the dispute resolution process set forth in Section 16.0 as the procedure for resolving the issues.

14.2.3 After receipt of the responses and use of the dispute resolution process, if necessary, under Section 14.2.2, CenturyLink QC may file a petition with the Commission requesting a waiver. CenturyLink QC may indicate in its petition its understanding of the extent of opposition to its request based on the responses provided under Section 14.2.2 and/or the outcome of the dispute resolution process. Any waiver request must contain an explanation of the circumstances that justify the waiver, and any and all relevant documentation relied upon to support the request. To establish that the circumstances warrant granting of a requested waiver, CenturyLink QC must show the existence of those circumstances by a preponderance of the evidence. For any such action, CenturyLink QC shall be required to pay the disputed credits or place the disputed amount of money into an interest-bearing escrow account until the matter is resolved.

### **15.0 Limitations**

15.1 CenturyLink QC’s agreement to implement these enforcement terms, and specifically its agreement to make any payments hereunder, will not be considered as an admission against interest or an admission of liability in any legal, regulatory, or other proceeding relating in whole or in part to the same performance. CLEC may not use (1) the existence of this enforcement plan or (2) CenturyLink QC’s current, former Tier 1, or former Tier 2 payments as evidence that CenturyLink QC has discriminated in the provision of any facilities or services under Sections 251 or 252 of the Act or has violated any state or federal law or regulation. CenturyLink QC’s conduct underlying its performance measures, however, is not made inadmissible by this SGAT term. By accepting this performance remedy plan, CLEC agrees that CenturyLink QC’s performance with respect to this remedy plan may not be used as an admission of liability or culpability for a violation of any state or federal law or regulation. (Nothing herein is intended to preclude CenturyLink QC from introducing evidence of any payments under these provisions for the purpose of precluding additional payments or offsetting any payments against any other damages or payments a CLEC might recover.) The terms of this paragraph do not apply to any proceeding before the Commission or the FCC to determine whether CenturyLink QC has met, or continues to meet, the requirements of Section 271 of the Act.

15.2 This PAP contains a comprehensive set of performance submeasurements, statistical methodologies, and payment mechanisms that are designed to function together, and only together, as an integrated whole. To elect the PAP, CLEC must adopt the PAP in its entirety, into its interconnection agreement with CenturyLink QC in lieu of other alternative standards or relief, except as stated in Sections 15.3, 15.4, and 15.5.

15.2.1 Subsequent changes to the PAP approved by the Commission will be incorporated into individual interconnection agreements that contain the PAP as soon as the effective date of the Commission order, and without further Amendment to those Agreements.

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15.3 In electing the PAP in states in which there exist wholesale service quality rules, CLEC shall surrender any rights to remedies under state wholesale service quality rules (in that regard, this PAP shall constitute an “agreement of the parties” to opt out of those rules) or under any interconnection agreement designed to provide such monetary relief for the same performance issues addressed by the PAP. The PAP shall not limit either non-contractual legal or non-contractual regulatory remedies that may be available to CLEC.

15.4 Payments to CLECs are in the nature of liquidated damages. Before CLEC shall be able to file an action seeking contract damages that flow from an alleged failure to perform in an area specifically measured and regulated by the PAP, CLEC must first seek permission through the Dispute Resolution Process set forth in Section 16.0 to proceed with the action. This permission shall be granted only if CLEC can present a reasonable theory of damages for the non-conforming performance at issue and evidence of real world economic harm that, as applied over the preceding six months, establishes that the actual payments collected for non-conforming performance in the relevant area do not redress the extent of the competitive harm. If CLEC can make this showing, it shall be permitted to proceed with this action. Any damages awarded through this action shall be offset with payments made under this PAP. If the CLEC cannot make this showing, the action shall be barred. To the extent that CLEC’s contract action relates to an area of performance not addressed by the PAP, no such procedural requirement shall apply.

15.5 If for any reason CLEC agreeing to this PAP is awarded compensation for the same harm for which it received payments under the PAP, the court or other adjudicatory body hearing such claim may offset the damages resulting from such claim against payments made for the same harm. Only that relevant finder of fact, and not CenturyLink QC in its discretion, can judge what amount, if any, of PAP payments should be offset from any judgment for a CLEC in a related action.

15.6 The Commission shall have the right to modify this plan in accordance with Section 17.0.

### **16.0 Dispute Resolution Process**

16.1 The dispute resolution process specified in this PAP does not replace or in any way limit, among other things, the processes for resolving interconnection disputes not within the ambit of the PAP.

16.2 The Commission may decide issues arising from for-cause audits and root-cause analyses.

16.2.1 The Parties will attempt in good faith to resolve through negotiation any dispute, claim or controversy arising out of, or relating to, this Agreement. Either Party may give written notice to the other Party of any dispute not resolved in the normal course of business. Each Party will within seven (7) Days after delivery of the written notice of dispute, designate a vice-president level employee or a

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representative with authority to make commitments to review, meet, and negotiate, in good faith, to resolve the dispute. The Parties intend that these negotiations be conducted by non-lawyer, business representatives, and the locations, format, frequency, duration, and conclusions of these discussions will be at the discretion of the representatives. By mutual agreement, the representatives may use other procedures to assist in these negotiations. The discussions and correspondence among the representatives for the purposes of these negotiations will be treated as Confidential Information (Confidential Information) developed for purposes of settlement, and will be exempt from discovery and production, and not be admissible in any subsequent proceedings without the concurrence of both Parties.

16.2.2 If the designated representatives have not reached a resolution of the dispute within fifteen (15) Days after the written notice (or such longer period as agreed to in writing by the Parties), then either Party may commence an action which will be brought to the Commission.

16.3 The dispute resolution process envisioned by the PAP provides a means of resolving issues raised by the PAP reports, payment calculations and processes. This process is akin to the dispute resolution processes that might be established in other Interconnection Agreements, except it applies exclusively to the PAP.

16.4 The PAP’s dispute resolution process shall not be resorted to unless and until the problem is raised at the Vice President – Vice President level at least two weeks before a dispute is submitted to the Commission. As part of its request for dispute resolution, the party making the request (“complainant”) must provide a statement including specific facts that the complainant engaged (or attempted to engage) in good faith negotiations to resolve the disagreement, and that, despite these good faith efforts, the parties failed to resolve the issue.

16.5 In all actions before the Commission, the losing party shall pay all relevant attorney’s fees and costs – including monies spent to prove that the problem exists – as determined by the Commission.

### **17.0 Effective Date, Change Provisions and Termination**

17.1 The effective date of the current PAP is February 2, 2020 the date on which the Commission adopts its decision in an order approving it, or the effective date of a new CLEC opting into the PAP in its ICA, whichever date is later.

17.2 If CenturyLink QC or CLEC wishes to modify a PID or a PAP provision, the change must be approved by the Commission. Prior to seeking Commission approval, CenturyLink QC and CLEC will use the dispute resolution process set forth in Section 16.0 as the procedure for resolving the issues. Either CenturyLink or CLEC may submit its proposed modification(s) to the Commission for approval. The Commission will establish a process for providing notice and considering such request, including timelines for interested parties

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or Staff to oppose the request. If the request is unopposed, the Commission may grant such request without a hearing or further notice.

17.2.1 Any party may submit a root cause analysis to the Commission requesting removal of a PID or submeasurement from the PAP. Prior to making such request to the Commission, the party shall provide notice to all affected parties and Commission Staff of its intent to make such request. If the requested removal is contested, CenturyLink QC and CLEC will pursue the dispute resolution procedures of Section 16.0 before seeking a Commission decision on the matter.

17.2.2 If CenturyLink QC or CLEC wishes to submit a root cause analysis to the Commission requesting removal of a PID or submeasurement from the PAP, the removal must be approved by the Commission. The root cause analysis shall address, at a minimum, whether there is evidence of no harm, the same harm as covered by other PID submeasurements, non-CenturyLink QC related causes, or other factors which directly relate to the harm or circumstances specific to the PID or submeasurement being analyzed. The Commission will establish a process for providing notice and considering such request, including timelines for interested parties or Staff to oppose the request. If the request is unopposed, the Commission may grant such request without a hearing or further notice.

17.3 If any agreements on adding, modifying or deleting performance measurements or PAP provisions are reached between CenturyLink QC and CLECs, or if the Commission approves changes to the PAP after notice and hearing, those additions, deletions, or modifications shall be incorporated into the PAP and modify the agreement between CLECs and CenturyLink QC at any time those agreements are submitted to the Commission.

**18.0 Voluntary Performance Assurance Plan**

18.1 This PAP represents CenturyLink QC’s voluntary offer to provide performance assurance.

## Attachment 1.4

CLEC PID/PAP Provisioning Orders Completed Volume for the State of North Dakota  
 By Product Reported in Metric OP5 - Includes All Orders Completed Regardless of Company or Customer Delays  
 Official Centurylink Corporate 271 Results - January 2014 through October 2021

Year	Remaining Product LIS Trunk	Products Removed 2019 FCC UNE Forbearance Order			Products Removed 2020 FCC UNE Forbearance Order						
		Residence	Unbundled Loop - Analog	Total	Unbundled Loop - DS1 Capable	Enhanced Extended Loops - DS1 Capable	Unbundled Loop - 2 Wire Non-Loaded	Unbundled Loop - Sub Loop	Unbundled Loop - xDSL	Unbundled Loop - ADSL Capable	Total
2014	9	2	362	364	110	0	33	0	0	161	304
2015	17	1	238	239	72	0	12	0	0	98	182
2016	12	0	182	182	35	0	15	0	0	82	132
2017	25	0	170	170	8	0	0	0	0	39	47
2018	16	0	155	155	19	0	8	0	0	32	59
2019	11	0	66	66	9	0	15	0	0	44	68
2020	26	0	36	36	2	0	0	0	0	13	15
2021 YTD	10	0	7	7	1	0	0	0	0	0	1
<b>Totals</b>	<b>126</b>	<b>3</b>	<b>1216</b>	<b>1219</b>	<b>256</b>	<b>0</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>469</b>	<b>808</b>

## Attachment 1.13

### UNE Forbearance Timelines - Product Specific List Impacting Qwest/Centurylink PID/PAP

Legacy Q PID/PAP Product Disaggregation	UNE Forbearance Order	Orders Cease *	Deadline Date **
Resale Residential POTS	UNE Analog Loop and Resale (8/2/2019)	2/2/2020	8/2/2022
Resale Business POTS	UNE Analog Loop and Resale (8/2/2019)	2/2/2020	8/2/2022
Unbundled Analog (with and without LNP)	UNE Analog Loop and Resale (8/2/2019)	2/2/2020	8/2/2022
Unbundled Sub-Loop (Voice)	UNE Analog Loop and Resale (8/2/2019)	2/2/2020	8/2/2022
Unbundled DS1	UNE Modernizing (10/28/2020)	2/8/2023	8/8/2024
EEL DS1	UNE Modernizing (10/28/2020)	2/8/2023	8/8/2024
Unbundled ADSL	UNE Modernizing (10/28/2020)	2/8/2023	2/10/2025
Unbundled XDSLi	UNE Modernizing (10/28/2020)	2/8/2023	2/10/2025
Unbundled 2-Wire Non-Loaded	UNE Modernizing (10/28/2020)	2/8/2023	2/10/2025
Unbundled Sub-Loop (Digital)	UNE Modernizing (10/28/2020)	2/8/2023	2/10/2025

\* CLEC's can no longer order UNE products under ICA and have begun signing new Commercial agreements/ordering tariff products

\*\* Latest date CLEC's will have signed Commercial agreements/ordered tariff products.