APPENDIX 3A

Service Performance Indicator Definitions (PID)

CenturyLink QC

ICA Exhibit B – PID Version 10.1

APPENDIX 3A

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

Table of Contents

Electronic Gateway Availability

GA-1 – Gateway Availability – LSR

Purpose:
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.

Description:
GA-1-<Name of LSR Gateway or Associated System> NOTE 1: 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.

- Scheduled Up Time hours for preorder, order, and provisioning transactions are based on the currently published hours of availability found on the following website: http://www.centurylink.com/wholesale/cmp/ossHours.html.

- Time Gateway is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.
- Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.
- 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.
- 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.

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate results	**Disaggregation Reporting:** Region-wide level.

Formula:
([Number of Hours and Minutes Gateway or system is Available to CLECs During Reporting Period] ÷ [Number of Hours and Minutes of Scheduled Availability Time During Reporting Period]) x 100

Exclusions: None

Product Reporting: 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).	**Standard:** Diagnostic

Availability: 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.)	**Notes:** 1. Such as "GA-1-IMA-GUI," "GA-1-XML," NOTE 2 or "GA-1-SIA," with other gateways or systems being limited to those that replace these gateways. 2. GA-1-XML replaces the former GA-8 PID.

GA-3 – Gateway Availability – Repair

Purpose:
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.

Description:
GA-3-<Name of Repair Gateway> [NOTE 1]: 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.

- Scheduled Up Time hours are based on the currently published hours of availability found on the following website: http://www.centurylink.com/wholesale/cmp/ossHours.html.
- Time Gateway is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.
- Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.
- 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.
- 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.

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate results	**Disaggregation Reporting:** Region-wide level.

Formula:
([Number of Hours and Minutes Gateway is Available to CLECs During Reporting Period] ÷ [Number of Hours and Minutes of Scheduled Availability During Reporting Period]) x 100

Exclusions: None

Product Reporting: Reported by system, for each repair trouble submittal gateway.	**Standard:** Diagnostic
Availability: 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.)	1. **Notes:** Such as "GA-3-EB-TA" or "GA-3-Repair GUI" [NOTE 2], 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.

GA-4 – System Availability – ASR

Purpose:
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.

Description:
GA-4-<Name of ASR-processing System> NOTE 1: Measures the availability of the electronic ASR submittal system and reports the percentage of scheduled availability time the system is available.

- Scheduled Up Time hours are based on the currently published hours of availability found on the following website: http://www.centurylink.com/wholesale/cmp/ossHours.html.
- Time System is Available to CLECs is equal to Scheduled Availability Time minus Outage Time.
- Scheduled Availability Time is equal to Scheduled Up Time minus Scheduled Down Time.
- 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.
- 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.

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate results	**Disaggregation Reporting:** Region-wide level.

Formula:
([Number of Hours and Minutes EXACT is Available to CLECs During Reporting Period] ÷ [Number of Hours and Minutes of Scheduled Availability During Reporting Period]) x 100

Exclusions: None

Product Reporting: Reported by system, for each ASR submittal gateway.	**Standard:** Diagnostic
Availability: 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.)	**Notes:** 1. Such as "GA-4-EXACT," with other gateways or systems being limited to those that replace this system.

GA-7 – Timely Outage Resolution following Software Releases

Purpose:
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.

Description:
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 [NOTE 1] within 48 hours of detection by the CenturyLink QC monitoring group or reporting by a CLEC/co-provider.

- 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).[NOTE 2]
- 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 [NOTE 3] 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.
- 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.

Reporting Period: Monthly	**Unit of Measure:** Percent
Reporting Comparisons: CLEC Aggregate	**Disaggregation Reporting:** Region-wide level.

Formula:
[(Total outages detected within two weeks of a Software Release that are resolved within 48 hours of the time CenturyLink QC detects the outage) ÷ (Total number of outages detected within two weeks of Software Releases resolved in the Reporting Period)] x 100

Exclusions:

- Outages in releases prior to any CLEC migrating to the release.
- Duplicate reports attributable to the same software defect.

Product Reporting: None	**Standards:** Diagnostic

Availability: Available	**Notes:** 1. "Resolved" means that service is restored to the reporting CLEC, as experienced by the CLEC. 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. 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).

Pre-Order/Order

PO-1 – Pre-Order/Order Response Times

Purpose:
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.

Description:
PO-1-<Gateway Type> NOTE 1: Measures the time interval between query and response for specified pre-order/order transactions through the electronic interface.

- 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.
- 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.
- A query is an individual request for the specified type of information.

Reporting Period: One month	**Unit of Measure:** Seconds

Reporting Comparisons:	**Disaggregation Reporting:** Region-wide level. Results are reported by gateway type Results are reported separately for each of the following transaction types, to the extent they are offered through the gateway type: NOTES 2, 3, & 4 1. Appointment Scheduling (Due Date Reservation, where appointment is required) 2. Service Availability Information 3. Facility Availability 4. Street Address Validation 5. Customer Service Records 6. Telephone Number 7. Loop Qualification Tools 8. [Left intentionally blank to preserve numbering] 9. Connecting Facility Assignment 10. Meet Point Inquiry 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.
CLEC aggregate.	

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

<table>
<tr><td colspan="2">Formula:
Σ[(Query Response Date & Time) – (Query Submission Date & Time)] ÷ (Number of Queries Submitted in Reporting Period)</td></tr>
<tr><td colspan="2">Exclusions:
• Rejected requests/errors, and timed out transactions</td></tr>
<tr><td>Product Reporting:
None</td><td>Standards:
Diagnostic</td></tr>
<tr><td>Availability:
Available</td><td>Notes:
1. Such as “PO-1-XML” or “PO-1-IMA GUI.”
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.
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.
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.</td></tr>
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PO-2 – Electronic Flow-through

Purpose:
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.

Description:
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.

- Includes all LSRs that are submitted electronically during the reporting period, subject to exclusions specified below.

PO-2B – Measures the percentage of all flow-through-eligible LSRs NOTE 1 that flow from the specified electronic gateway interface to the SOP without any human intervention.

- Includes all flow-through-eligible LSRs that are submitted electronically during the reporting period, subject to exclusions specified below.

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate, individual CLEC	**Disaggregation Reporting:** Statewide level (per multi-state system serving the state).

Formula:

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

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

Exclusions:

- Rejected LSRs and LSRs containing CLEC-caused non-fatal errors.
- Non-electronic LSRs (e.g., via fax or courier).
- 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.

Product Reporting: • Existing Resale Services NOTE 2 • Unbundled Loops (with or without Local Number Portability - includes Existing Analog Loops – NOTE 2 • Local Number Portability (includes Existing Analog Loops – NOTE 2)	**Standards:** Diagnostic
Availability: Available	**Notes:** 1. 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.

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.

PO-3 – LSR Rejection Notice Interval

Purpose: Monitors the timeliness with which CenturyLink QC notifies CLECs that electronic and manual LSRs were rejected.	
Description: Measures the interval between the receipt of a Local Service Request (LSR) and the rejection of the LSR for standard categories of errors/reasons. • Includes all LSRs submitted through the specified interface that are rejected during the reporting period. • 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. • 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. • 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.	
Reporting Period: One month	**Unit of Measure:** Hours: Minutes
Reporting Comparisons: CLEC aggregate and individual CLEC results	**Disaggregation Reporting:** Statewide • PO-3C, LSRs received via facsimile • PO-3X, LSRs received electronically and rejected manually
Formula: Σ [(Date and time of Rejection Notice) – (Date and time of LSR receipt)] ÷ (Total number of LSR Rejection Notifications)	
Exclusions: • 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.	
Product Reporting: Not applicable	**Standards:** Diagnostic
Availability: Available	**Notes:**

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. NOTE 2
- "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 NOTE 2
• 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 NOTE 3
• For PO-5D (LIS Trunks):	85**%** within eight business days

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

Product Group NOTE 1	**FOC Interval**
Existing Resale Services NOTE 4 Residence POTS 1-39 lines	**24 hours**
LNP (includes Existing Analog Loops NOTE 4) 1-50 lines	
Unbundled Loops 1-24 loops Existing Analog Loops NOTE 4 [included in Product Reporting group (b)]	
Sub-Loop – Non-Loaded (includes Existing Analog Loops NOTE 4) 1-24 sub-loops [included in Product Reporting group (b)]	

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

	Enhanced Extended Loops-DS1 (EEL-DS1) 1-24 circuits [included in Product Reporting group (b)]	**48 hours**
	Unbundled Loops w/Facility Check (NOTES 2, 3) [included in Product Reporting group (b)] 1-24 loops 2-Wire Non-Loaded ADSL-Compatible XDSL-I Capable DS1-Capable	**72 hours**
	For PO-5D: LIS Trunks 1-240 trunk circuits	**8 business days**
	Notes: 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.	
Availability: Available		

PO-9 – Timely Jeopardy Notices

Purpose:
When original due dates are missed, measures the extent to which CenturyLink QC notifies customers in advance of jeopardized due dates.

Description:
Measures the percentage of late orders for which advance jeopardy notification is provided.

- 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 inward activity.
- 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.

Reporting Period: One month	**Unit of Measure:** Percent

Reporting Comparisons:	**Disaggregation Reporting:** Statewide level.
CLEC aggregate, individual CLEC and CenturyLink QC Retail results	(This measure is reported by jeopardy notification process as used for the categories shown under Product Reporting.)

Formula:
[(Total missed due date orders completed in the reporting period that received jeopardy notification in advance of original due date) ÷ (Total number of missed due date orders completed in the reporting period)] x 100

Exclusions:

- Orders missed for customer reasons.
- Records with invalid product codes.
- Records involving official company services.
- Records with invalid due dates or application dates.
- Records with invalid completion dates.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

Product Reporting:	**Standards:** Diagnostic, with retail comparative results also reported as follows:
~~A Non-Designed Services~~ B Unbundled Loops Existing Analog Loops NOTE 1 C LIS Trunks	~~A Parity with Retail POTS~~ B Parity with Retail POTS C Parity with Feature Group D (FGD) Services
Availability: Available	**Notes:** 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.

OP-3 – Installation Commitments Met

Purpose:
Evaluates the extent to which CenturyLink QC installs services for Customers by the scheduled due date.

Description:
Measures the percentage of orders for which the scheduled due date is met.

- 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 inward activity. Also included are orders with customer-requested due dates longer than the standard interval.
- 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.

Reporting Period: One month	**Unit of Measure**: Percent

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-3A Dispatches within MSAs; OP-3B Dispatches outside MSAs; and OP-3C No dispatches. • Results for products/services listed in Product Reporting under "Zone-type Disaggregation" will be disaggregated according to installations: OP-3D In Interval Zone 1 areas; and OP-3E In Interval Zone 2 areas.

Formula:
[(Total Orders completed in the reporting period on or before the Applicable Due Date) ÷ (Total Orders Completed in the Reporting Period)] x 100

Exclusions:

- Disconnect, From (another form of disconnect), and Record order types.
- 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.
- Records involving official company services.
- Records with invalid due dates or application dates.
- Records with invalid completion dates.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

OP-3 – Installation Commitments Met (continued)

Product Reporting:	**Standards:**
MSA-Type Disaggregation -	
~~• Resale Residential single line service~~	~~Parity with retail service~~
• Sub-Loop Unbundling – Non-Loaded	90%
Zone-Type Disaggregation -	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
~~Analog Loop~~	~~90%~~
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%

Availability:	**Notes:**
Available	

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) NOTE 1 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. NOTE 2
- 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. NOTE 2

Reporting Period: One month	**Unit of Measure**: Average Business Days

Reporting Comparisons:	**Disaggregation Reporting:** Statewide level.
CLEC aggregate, individual CLEC and CenturyLink QC Retail results	• 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:
Σ[(Order Completion Date) – (Order Application Date) – (Time interval between the Original Due Date and the Applicable Date) – (Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date)] ÷ 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) NOTE 1 by total number of service orders completed in the reporting period.

OP-4 – Installation Interval (continued)

Exclusions:

- Orders with customer requested due dates greater than the current standard interval.
- Disconnect, From (another form of disconnect), and Record order types.
- Records involving official company services.
- Records with invalid due dates or application dates.
- Records with invalid completion dates.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

Product Reporting:	**Standards:**
~~MSA-Type Disaggregation -~~	
~~• Resale Residential single line service~~	~~Parity with retail service~~
~~•~~ Sub-Loop Unbundling~~–~~ Non-Loaded	6 days
Zone-Type Disaggregation -	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
~~Analog Loop~~	~~6 days~~
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

Availability:	**Notes:**
Available	1. ~~For OP-4C, Saturday is counted as a business day for all orders for Resale Residence, as well as for the retail analogues specified above as standards.~~ For all ~~other~~ products, ~~under OP-4C and for all products under OP-4A, -4B, -4D, and -4E.~~ saturday is counted as a business day when the service order is due or completed on Saturday. 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.

OP-5 – New Service Installation Quality

Purpose:
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.

Description:
Measures the percentage of inward line service orders that are free of repair trouble reports NOTE 2 within 30 calendar days of installation completion, subject to exclusions below.

- 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 inward activity. NOTE 1
- Orders for new service installations include conversions (Retail to CLEC, CLEC to CLEC, and same CLEC converting between products).
- 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.
- 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 NOTE 3 that are closed in the reporting period or the following month, NOTE 4 subject to exclusions shown below. NOTE 5
- 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.

Reporting Period: 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 installation.	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and CenturyLink QC Retail results	**Disaggregation Reporting:** Statewide level

Formula:
(Number inward line service orders completed in the reporting period – Number of inward line service orders with any repair trouble reports as specified above) ÷ (Number of inward line service orders completed in the reporting period) x 100

Exclusions:

- 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.

OP- 5 – New Service Installation Quality (continued)

- 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).
- Repair or provisioning trouble reports related to service orders captured as misses under measurements OP-13 (Coordinated Cuts Timeliness)
- Subsequent repair or provisioning trouble reports of any trouble on the installed service before the original repair or provisioning trouble report is closed.
- Service orders closed in the reporting period with App Dates earlier than eight months prior to the beginning of the reporting period.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- 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.
- Records involving official CenturyLink QC company services.
- Records missing data essential to the calculation of the measurement as defined herein.

Product Reporting Categories:	**Standards:** Parity with retail service
• As specified below – one percentage result reported for each bulleted category under the sub-measurements shown.	*(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.)*

Product Reporting:	**Standards:**
~~• Resale Residential single line service~~	~~Parity with retail service~~
• Sub-Loop Unbundling – Non-Loaded	Parity with retail DS1 Private Line
• Unbundled Loops:	
~~Analog Loop~~	~~Parity with retail Res & Bus POTS with dispatch~~
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)

Availability:	**Notes:**
Available	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. 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

OP- 5 – New Service Installation Quality (continued)

	whether the newly-installed line/circuit was trouble free within 30 days of installation. 3. CenturyLink QC's repair management and tracking systems obtain the repair report data for this measurement. Not included are Call Center Database systems supporting call centers in logging calls from customers regarding problems or other inquiries. 4. The "following month" includes also the period of a few business days (typically four or five) afterward, up to the time when CenturyLink QC pulls the repair data to begin processing results for this measurement. 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. ~~6. Sub-Loop Unbundling standard: When CLEC order volumes of this element exceed 10 per month, CLEC and CenturyLink QC may work together to identify an applicable benchmark.~~

OP-8 – Number Portability Timeliness

Purpose:
Evaluates the timeliness of cutovers of local number portability (LNP).

Description:
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.

- All orders for LNP for standalone LNP coordinated and non-coordinated with other than CenturyLink QC-provided facilities subject to exclusions specified below.

- For purposes of this measurement (OP-88C), "trigger" refers to the "10-digit unconditional trigger" or Line Side Attribute (LSA) that is set or translated by CenturyLink QC.
- "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.

Reporting Period: One month	**Unit of Measure:** Percent of triggers set on time
Reporting Comparisons: CLEC aggregate and individual CLEC results	**Disaggregation Reporting:** Statewide level.

Formula:
OP-8C = [(Number of LNP triggers set before the Frame Due Time or Scheduled Start Time) ÷ (Total Number of LNP activations without loop cutovers completed)] x 100

Exclusions:

- Existing Analog Loops NOTE 1
- CLEC-caused delays in trigger setting.
- LNP requests that do not involve automatic triggers.
- LNP requests for which the records used as sources of data for these measurements have the following types of errors:
- Records with no PON (purchase order number) or STATE.
- Records where triggers cannot be set due to switch capabilities.
- Records with invalid due dates, application dates, or start dates.
- Records with invalid completion dates.
- Records missing data essential to the calculation of the measurement per the PID.
- Invalid start/stop dates/times or invalid frame due or scheduled date/times.

Product Reporting: None	**Standard:** 95%
Availability: Available	**Notes:** 1. Effective 2/2/20. See definition of terms for product description.

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

Purpose:
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.

Description:
OP-15A – Measures the average number of business days that pending orders are delayed beyond the Applicable Due Date for reasons attributed to CenturyLink QC.

- 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 inward activity.
- 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. NOTE 1
- 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. NOTE 1

OP-15B – Reports the number of pending orders measured in the numerator of OP-15A that were delayed for CenturyLink QC facility reasons.

Reporting Period: One month	**Unit of Measure:** OP-15A **–** Average Business Days NOTE 2 OP-15B – Number of orders pending facilities

Reporting Comparisons:	**Disaggregation Reporting:**
CLEC aggregate, individual CLEC, CenturyLink QC retail	Statewide

Formula:
OP-15A = ∑[(Last Day of Reporting Period) – (Applicable Due Date of Late Pending Order) – (Time intervals associated with customer-initiated due date changes or delays occurring after the Applicable Due Date)] ÷ (Total Number of Pending Orders Delayed for CenturyLink QC reasons as of the last day of Reporting Period)
OP-15B = Count of pending orders measured in numerator of OP-15A that were delayed for CenturyLink QC facility reasons

Exclusions:

- Disconnect, From (another form of disconnect) and Record order types.
- Records involving official company services.
- Records with invalid due dates or application dates.
- Records with invalid product codes.
- Records missing data essential to the calculation of the measurement per the PID.

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

Product Reporting:	**Standards:** Diagnostic, with retail comparatives also reported as specified below
~~• Resale Residential single line service~~	~~Diagnostic (Expectation: Parity with retail service)~~
• Sub-Loop Unbundling~~–~~ Non-Loaded	Diagnostic
• LIS Trunks	Diagnostic (Expectation: Parity with Feature Group D (aggregate)) (separately reported)
• Unbundled Loops:	
~~Analog Loop~~	~~Diagnostic (Expectation: Parity with retail Res and Bus POTS with dispatch)~~
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

Availability:	**Notes:**
Available	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 OP-15A, Saturday is counted as a business day for all non-dispatched orders for Resale Residence, as well as for non-dispatched orders in the retail analogues specified above as standards~~. For all ~~other~~ 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

Purpose:
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).

Description:
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.

- 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.
- 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**: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC, and CenturyLink QC Retail results	**Disaggregation Reporting:** Statewide level. Results for listed products will be disaggregated according to trouble reports: MR-5A Zone-type disaggregation In Interval Zone 1 areas MR-5B Zone-type disaggregation In Interval Zone 2 areas MR-5X Non-disaggregated reporting

Formula:
[(Number of Trouble Reports closed in the reporting period that are cleared within interval specified herein) ÷ (Total Trouble Reports closed in the reporting period)] x 100

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, Carrier Action (IEC) and Customer Provided Equipment (CPE).
- Subsequent trouble reports of any trouble before the original trouble report is closed.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- Time delays due to “no access” are excluded from repair time.
- Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.
- 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.

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

Product Reporting:	**Standards:**
Zone-Type Disaggregation – All Troubles Cleared within 4 Hours	
• 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
Non-disaggregated Reporting – Out of Service Cleared within 24 Hours	
• Existing Resale Services - Business Single Line Service NOTE 1	Diagnostic (Expectation: parity with retail)
• Sub-Loop Unbundling – Non-Loaded (Includes Existing Analog Loops NOTE 1)	Diagnostic (Expectation: parity with retail RES and BUS POTS)
Availability: Available	**Notes:** 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:	**Disaggregation Reporting:** Statewide level.
CLEC aggregate, individual CLEC, and CenturyLink QC Retail results	• 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:
∑[(Date & Time Trouble Report Cleared) – (Date & Time Trouble Report Opened)] ÷ (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)

• 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:	**Standards:**
MSA-Type Disaggregation	
• ~~Resale~~ Existing Resale Services - Residential single line service NOTE 2	Parity with retail service
• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops NOTE 2)	Parity with Retail RES and BUS POTS NOTE 1
Zone-Type Disaggregation -	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
~~Analog Loop~~ Existing Analog Loops NOTE 2	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)
• Enhanced Extended Loops-DS1 (EEL-DS1)	Parity with retail DS1 Private Line
Availability: Available	**Notes:** 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.” 2. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.

MR-7 – Repair Repeat Report Rate

Purpose:
Evaluates the accuracy of repair actions, focusing on the number of repeated trouble reports received for the same line/circuit within a specified period (30 calendar days).

Description:
Measures the percentage of trouble reports that are repeated within 30 days on end user lines and circuits.

- 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.
- 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.
- Includes reports due to CenturyLink QC network or system causes, customer-direct and customer-relayed reports.
- 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).

Reporting Period: 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.	**Unit of Measure:** Percent

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-7A Dispatches within MSAs; MR-7B Dispatches outside MSAs; and MR-7C No dispatches. • Results for products/services listed in Product Reporting under "Zone-type Disaggregation" will be disaggregated according to trouble reports involving: MR-7D In Interval Zone 1 areas; and MR-7E In Interval Zone 2 areas.

Formula:
[(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) ÷ (Total number of Trouble Reports Closed in the reporting period)] x 100

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).

MR-7 – Repair Repeat Report Rate (Continued)

- Subsequent trouble reports of any trouble before the original trouble report is closed.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.
- 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:	**Standards:**
MSA-Type Disaggregation -	
• ~~Resale~~ Existing Resale Services - Residential single line service NOTE 1	Parity with retail service
• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops NOTE 1)	Retail DS1 Private Line
Zone-Type Disaggregation -	
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
~~Analog Loop~~ Existing Analog Loops NOTE 1	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)
• Enhanced Extended Loops-DS1 (EEL-DS1)	Parity with retail DS1 Private Line

Availability: Available	**Notes:** 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.

MR-8 – Trouble Rate

Purpose: Evaluates the overall rate of trouble reports as a percentage of the total installed base of the service or element.	
Description: Measures trouble reports by product and compares them to the number of lines in service. • Includes all trouble reports closed during the reporting period, subject to exclusions specified below. • Includes all applicable trouble reports, including those that are out of service and those that are only service-affecting.	
Reporting Period: One month	**Unit of Measure**: Percent
Reporting Comparisons: CLEC aggregate, individual CLEC, and CenturyLink QC Retail results	**Disaggregation Reporting**: Statewide level
Formula: [(Total number of trouble reports closed in the reporting period involving the specified service grouping) ÷ (Total number of the specified services that are in service in the reporting period)] x 100	
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. • Information tickets generated for internal CenturyLink QC system/network monitoring purposes. • Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete. • 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:	**Standards:**
• ~~Resale~~ Existing Resale Services - Residential single line service NOTE 2	Parity with retail service
• Sub-Loop Unbundling - Non-Loaded (Includes Existing Analog Loops NOTE 2)	Parity with Retail DS1 Private Line
• LIS Trunks	Parity with Feature Group D (aggregate)
• Unbundled Loops:	
~~Analog Loop~~ Existing Analog Loops NOTE 2	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 NOTE 1
xDSL-I Capable Loop	Parity with retail DS1 Private Line

MR-8 – Trouble Rate (continued)

<table>
<tr><td colspan="2">ADSL-Compatible Loop</td><td>Parity with retail ISDN-BRI</td></tr>
<tr><td colspan="2">• Enhanced Extended Loops-DS1 (EEL-DS1)</td><td>Parity with retail DS1 Private Line, except Colorado NOTE 1</td></tr>
<tr><td>Availability: Available</td><td colspan="2">Notes:
1. <u>In Colorado Only</u>: For DS1-Capable Loops and EEL-DS1s, the following three-tiered standard applies:
a. Benchmark of 3% for 3-month rolling average CLEC aggregate result or, if greater than 3%,
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,
c. Parity in current reported month using DS1 Private Line as retail comparative.
2. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description.</td></tr>
</table>

MR-9 – Repair Appointments Met [NOTE 1]

Purpose:
Evaluates the extent to which CenturyLink QC repairs services for Customers by the appointment date and time.

Description:
Measures the percentage of trouble reports for which the appointment date and time is met.

- Includes all trouble reports closed during the reporting period, subject to exclusions specified below.
- 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:** Percent
Reporting Comparisons: CLEC aggregate, individual CLEC and CenturyLink QC Retail results	**Disaggregation Reporting:** 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.

Formula:
[(Total Trouble Reports Cleared by appointment date and time) ÷ (Total Trouble Reports Closed in the Reporting Period)] x 100

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.
- Information tickets generated for internal CenturyLink QC system/network monitoring purposes.
- 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.
- Trouble reports on the day of installation before the installation work is reported by the technician/installer as complete.
- 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: ~~Resale~~ Existing Resale Services: Residential single line service [NOTE 1]	**Standard:** Diagnostic, with residential single line retail comparative results also reported
Availability: Available	**Notes:** 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description

MR-11 – LNP Trouble Reports Cleared within Specified Timeframes

Purpose:
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.

Description:

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.

- 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 business day, 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.

- 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.
- 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.
- 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.
- Time measured is from the date and time CenturyLink QC receives the trouble report to the date and time trouble is cleared.

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC Aggregate and Individual CLEC	**Disaggregation Reporting:** Statewide level (all are "non-dispatched").

Formula:

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

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

<table>
<tr><td colspan="2">Purpose:
Evaluates the timeliness with which CenturyLink QC delivers industry-standard, electronically-transmitted bills to CLECs, focusing on the percent delivered within ten calendar days.</td></tr>
<tr><td colspan="2">Description:
Measures the percentage of invoices that are delivered within ten days, based on the number of days between the bill date and bill delivery.
• Includes all industry standard electronically transmitted invoices for local exchange services and toll, subject to exclusions specified below.</td></tr>
<tr><td>Reporting Period: One month</td><td>Unit of Measure: Percent</td></tr>
<tr><td>Reporting Comparisons: Combined CenturyLink QC Retail/CLEC results (Parity by design)</td><td>Disaggregation Reporting: State level</td></tr>
<tr><td colspan="2">Formula:
[(Count of Invoices for which Bill Transmission Date to Bill Date is ten calendar days or less) ÷ (Total Number of Invoices)] x 100</td></tr>
<tr><td colspan="2">Exclusions:
• Bills transmitted via paper, magnetic tape, CD-ROM, diskette.
• Records with missing data essential to the calculation of the measurement per the PID.</td></tr>
<tr><td>Product Reporting:
• UNEs (including Existing Analog Loops NOTE 1) and Existing Resale Services – Residence NOTE 1)</td><td>Standard:
Diagnostic (Parity by Design)</td></tr>
<tr><td>Availability:
Available</td><td>Notes:
1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</td></tr>
</table>

BI-3 – Billing Accuracy – Adjustments for Errors

<table>
<tr><td colspan="2">Purpose:
Evaluates the accuracy with which CenturyLink QC bills CLECs, focusing on the percentage of billed revenue adjusted due to errors.</td></tr>
<tr><td colspan="2">Description:
Measures the billed revenue minus amounts adjusted off bills due to errors, as a percentage of total billed revenue.
• Both the billed revenue and amounts adjusted off bills due to error are calculated from bills rendered in the reporting period.
• “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.)</td></tr>
<tr><td>Reporting Period: One month</td><td>Unit of Measure: Percent</td></tr>
<tr><td>Reporting Comparisons: CLEC aggregate, individual CLECs</td><td>Disaggregation Reporting: State level</td></tr>
<tr><td colspan="2">Formula:
[∑(Total Billed Revenue Billed in Reporting Period - Amounts Adjusted Off Bills Due to Errors) ÷ (Total Billed Revenue billed in Reporting Period)] x 100</td></tr>
<tr><td colspan="2">Exclusions:
• BI-3A - UNEs and Resale – None
• BI-3B - Reciprocal Compensation Minutes of Use – Billing adjustments as a result of CLEC-caused errors in return of minutes of use</td></tr>
<tr><td>Product Reporting:
• BI-3A – UNE Loops (including Existing Analog Loops NOTE 1) and Existing Resale Services – Residence NOTE 1)
• BI-3B - Reciprocal Compensation Minutes of Use (MOU)</td><td>Standards: Diagnostic</td></tr>
<tr><td>Availability: Available</td><td>Notes:
1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description</td></tr>
</table>

BI-4 – Billing Completeness

Purpose:
- BI-4A – Evaluates the completeness with which CenturyLink QC reflects non-recurring and recurring charges associated with completed service orders on the bills.
- 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.

Description:
BI-4A –Measures the percentage of non-recurring and recurring charges associated with completed service orders appear on the correct bill.*

BI-4B – Measures the percentage of revenue associated with local minutes of use appearing on the correct (current) bill.*

* Correct bill = next available bill

Reporting Period: One month	**Unit of Measure:** Percent
Reporting Comparisons: CLEC aggregate, individual CLECs, and CenturyLink QC Retail results	**Disaggregation Reporting:** Statewide level.

Formula:
BI-4A =∑(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 ÷ total count of service orders with non-recurring and recurring charges associated with completed service orders billed on the bill)] x 100

BI-4B = [∑(Revenue for Local Minutes of Use billed on the correct* bill ÷ Total revenue for Local Minutes of Use collected during the month)] x 100

Exclusions: None

Product Reporting: • UNE Loops (including Existing Analog Loops NOTE 1) and Existing Resale Services – Residence NOTE 1) • Reciprocal Compensation (MOU)	**Standards:** Diagnostic
Availability: Available	**Notes:** 1. Product Reporting begins 2/2/20 and ends 8/2/22. See definition of terms for product description

Database Updates

DB-1 – Time to Update Databases

Purpose:
Evaluates the time required for updates to the databases of LIDB and Directory Builder.

Description:
- Measures the average time required to update the databases of LIDB and the directory database updating system.
- Includes all database updates as specified under Disaggregation Reporting completed during the reporting period.

Reporting Period: One month	**Unit of Measure:** Seconds
Reporting Comparisons: • DB-1B-LIDB: Combined results for all CenturyLink QC Retail, Reseller CLEC and Facilities Based CLEC updates; • 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. NOTE 1	**Disaggregation Reporting:** 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

Formula:
Σ[(Date and Time of database update for each database update as specified under Disaggregation Reporting in the reporting period) – (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)] ÷ Total database updates as specified under Disaggregation Reporting completed in the reporting period

Exclusion: Invalid start/stop dates/times.

Product Reporting: Not applicable (Reported by database type)	**Standards:** Diagnostic

Availability: Available	**Notes:** 1. Because they cannot be separated, results for CenturyLink QC Retail, Reseller CLEC, Facilities-based CLECs, ILEC and Unknown Provider updates are reported combined.

Network Performance

NI-1 – Trunk Blocking

Purpose:
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.

Description:
Measures the percentage of trunks blocking in interconnection and interoffice final trunks.

- 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.

Reporting Period: One month	**Unit of Measure:** Percent Blockage

Reporting Comparisons: CLEC aggregate, individual CLEC, and CenturyLink QC Interoffice trunk blocking results.	**Disaggregation Reporting:** Statewide level. Reports the percentage of trunks blocking in interconnection final trunks, reported by: NI-1A Interconnection (LIS) trunks to CenturyLink QC tandem offices, with TGSR-related exclusions applied as specified below; NI-1B LIS trunks to CenturyLink QC end offices, with TGSR-related exclusions applied as specified below; NI-1C LIS trunks to CenturyLink QC tandem offices, without TGSR-related exclusions; NI-1D LIS trunks to other CenturyLink QC end offices, without TGSR-related exclusions.

Formula:
{[∑(Blockage in Final Trunk Group of Specified Type) x (Number of Circuits in Trunk Group)] ÷ (Total Number of Final Trunk Circuits in all Final Trunk Groups)} x 100

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.

Exclusions:
For NI-1A and NI-1B only:

- Trunk groups, blocking in excess of one percent in the reporting period, for which:
  - A Trunk Group Service Request (TGSR) NOTES 1 & 2 or the equivalent (if replaced by another process) has been issued in the reporting period; or
  - CLECs do not submit, within 20 calendar days of receiving a TGSR or equivalent:
    - Responsive ASRs (or have ASRs pending that are delayed for CLEC reasons NOTE 3);
    - Trouble Reports; or
    - Notification of traffic re-routing (as described in Note 1 below).

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 NOTE 4); 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:	**Standards:** Diagnostic, with retail comparative results also reported as specified below for NI-1A and NI-1B:
LIS Trunks	• NI-1A: Comparison with CenturyLink QC Interoffice Trunks to tandems • NI-1B: Comparison with CenturyLink QC Interoffice Trunks to end offices

Availability:	**Notes:**
Available	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

NI-1 – Trunk Blocking (Continued)

	response period ends. Thus, any trunk group excluded in one month 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. 3. CLEC delays are reflected by CLEC-initiated order supplements that move the due date later. 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. 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. 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. 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. 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. 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. c. This limitation may change depending on the outcome of separate workshops dealing with issues of interconnection forecasting.

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. NOTE 1
- 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)

- Where CLECs do not accept the quote within thirty calendar days of the quote date, the application is considered expired.

CP-2A **Forecasted Collocations**: Measures collocation installations for which CLEC provides a forecast to CenturyLink QC 60 or more calendar days in advance of the Collocation Application Date.

CP-2B **Non-Forecasted and Late Forecasted Collocations**: 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.

CP-2C **All Collocations requiring Major Infrastructure Modifications and Collocations with intervals longer than 120 days**: 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.

Reporting Period: One month	**Unit of Measure**: Percent
Reporting Comparisons: CLEC aggregate and individual CLEC results	**Disaggregation Reporting:** Statewide level.

Formula: (for CP-2A, CP-2B and CP-2C)
[(Count of Collocations for which the RFS is met) ÷ (Total Number of Collocations Completed in the Reporting Period)] x 100

Exclusions:
- RFS dates missed for reasons beyond CenturyLink QC's control.
- Cancelled or expired requests.

Product Reporting: None	**Standards:** Diagnostic

Availability: Available	**Notes:** 1. 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).

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 ~~Resale Residence,~~ Unbundled Loops~~, and non-designed, flow-through LNP~~.
  4. ~~Retail orders for comparable non-designed services cannot be received after closing time, so the cutoff time is essentially the business office closing time.~~
- 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 4th, 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.

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.

~~**Directory Listings** – Subscriber information used for DA and/or telephone directory publishing, including name and telephone number, and optionally, the customer's address.~~

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.

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.

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

ACRONYM	DESCRIPTION
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.)