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MAY 06 2015

MONT. P.S. COMMISSION

May 6, 2015

Montana Public Service Commission
Kate Whitney
Division Administrator - Regulatory Division
1701 Prospect Avenue
Helena, MT 59620

E-filed and e-mailed

Re: Consolidated Docket Nos. D2014.11.91 and N2014.4.38

Dear Ms. Whitney:

Transmitted with this letter is a supplemental response of Qwest Corporation d/b/a CenturyLink QC ("CenturyLink QC") to Data Requests MCC-001 through MCC-014 of the Montana Consumer Counsel ("MCC").

On March 6, CenturyLink QC filed with the PSC its initial responses to MCC Data Requests MCC-001 through MCC-014.

On March 10, CenturyLink QC filed with the PSC a supplemental response consisting of an un-redacted *Exhibit 166* to the response to MCC-009.

With the attached May 6, 2015 supplemental response, CenturyLink QC is providing a more detailed, but non-confidential narrative in response to MCC-014. The supplemental response also includes assorted attachments and exhibits protected from public disclosure by Montana PSC Order No. 7388e which grants CenturyLink QC's motion for a protective order. The protected attachments and exhibits include:

- *MCC-001 Confidential Attachment B;*
- *MCC-002 Confidential Attachment A;*
- *MCC-002 Confidential Attachment B;*
- *MCC-002 Confidential Attachment C;*
- *MCC-002 Confidential Attachment D;*
- *MCC-003 Confidential Attachment A;*
- *MCC-007 Confidential Attachment A;*
- *MCC-008 Confidential Attachment A;*

CONFIDENTIAL

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- MCC-009 Exhibit 164 485104 Qwest MT ETC Fed 2012 CONFIDENTIAL UN-redacted;
- *MCC-011 Confidential Attachment A;*
- *MCC-011 Confidential Attachment B;*
- *MCC-014 Confidential Attachment A.*

Respectfully,

A handwritten signature in black ink, reading "Philip E. Grate". The signature is written in a cursive style with a large, prominent "P" and "G".

DEPARTMENT OF PUBLIC SERVICE REGULATION
BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MONTANA

* * * * *

IN THE MATTER OF CenturyLink QC's)
Service Quality and Its Response to Notice of)
Commission Action in Docket N2014.3.38,)
Including Petition for Waiver of Admin. R.)
Mont. 38.5.337197)(b))

REGULATORY DIVISION

DOCKET NO. D2014.11.91

IN THE MATTER OF the Request of Staff of)
the Montana Public Service Commission for)
CenturyLink Service Quality Information)

REGULATORY DIVISION

DOCKET NO. N2014.4.38

**CENTURYLINK QC SUPPLEMENTAL RESPONSES AND OBJECTIONS TO
DATA REQUESTS OF THE MONTANA CONSUMER COUNSEL
TO CENTURYLINK
MAY 6, 2015**

MCC-001

Request: Regarding the information contained in Slide 2, please provide the following in electronic spreadsheet or database format and in paper format:

- a. The investment for each year from 2000 through 2013, and for 2014 when that number becomes available (please specify that date if it is not currently available).
- b. The investment by wire center for every Montana wire center for each year from 2000 through 2013 and 2014 when that number becomes available.
- c. The investment by program type, where program types are FTTN, COIP, FTTH, Fiber to the Business and Fiber to the Cell Tower, for each year from 2000 through 2013 and 2014 when that number becomes available.
- d. The investment by wire center by program type, where program types are FTTN, COIP, FTTH, Fiber to the Business and Fiber to the Cell Tower, for each year from 2000 through 2013 and 2014 when that number becomes available.

Response to part a: The requested data are contained in an electronic spreadsheet in Excel file format entitled

MCC-001 Attachment A.

The question asks for “investment” but does not define it. For purposes of responding to part “a” of the request, the attachment contains additions to plant in service recorded on the company’s books of account for the years 2000 through 2014. The data in the attachment for the years 2004 through 2013 are the data used to populate Schedule 11, column d, of the company’s annual report to the Montana PSC for the years 2004 through 2013. The data for 2014 are the same data that would be used to populate Schedule 11, column d, if the PSC requires that data to be filed in 2014 annual reports to the PSC. The data in the attachment for the years 2000 through 2003 are from the company’s MR21 report. The access line data are the access lines the company reported on Schedule 23 of its annual report to the Montana PSC for the years 2000 through 2013 and will report for 2014 if the annual reports for 2014 require that data. The company’s annual reports are readily available for review and download from the PSC’s website.

The data in *MCC- 001 Attachment A* for the years 2000 through 2013 are the data used to create the Slide 2 of the company’s the October 17, 2014 oral presentation to the Commission.

Respondent: Phil Grate, Director Regulatory and Legislative Affairs, formerly Director Regulatory Finance.

Response to parts b, c and d: The requested data are contained in an electronic spreadsheet in Excel file format entitled

MCC-001 Confidential Attachment B.

This attachment contains six worksheets as follows:

- a. IR Descriptions* provides a definition of investment reasons. This data is non-confidential and is provided below.
- b. Summary by WC* provides construction expenditures by Wire Center by year from 2000 through 2014 for all CenturyLink QC wire centers.
- c. Summary by Investment Reason* provides construction expenditures by year by Investment Reason.
- d. Summary by WC-IR* provides construction expenditures by year by Investment Reason by Wire Center.
- e. 2000-2014 data* contains the raw data used to create b, c and d.
- f. Difference ATNPS vs CP* provides a calculation of the difference between Additions to Net Plant in Service and total Construction Projects by year. This information is not confidential but is also not requested. It is provided to aid the understanding of persons reviewing the confidential data described above.

The question asks for “investment” but does not define it. The response to part “a” of this request treats as “investment” the company’s additions to plant in service recorded on the company’s books of account. The company does not have a report of additions to

plant in service by wire center by program types; additions are recorded by Part 32 account number under the FCC's Uniform System of Accounts. The available data that most closely matches the data specified in the request is found in the company's network project tracking system called "Fireworks" that the company has used to manage construction projects since it converted its accounting system from Peoplesoft to SAP at the beginning of 2012. Prior to the conversion, the company used a network project tracking system called the Job Entry Tracking System/Common Planning Document (JETS/CPD) that also did not track construction projects by the program types specified in the request. The company's network project tracking systems contain construction expenditures by year by Wire Center by Investment Reason. The following matrix describes each Investment Reason used in the attachment.

INVESTMENT REASON	DESCRIPTION OF INVESTMENTS
DROP	Drop wire needed to provide customer services (Note: Drop is not charged to specific projects, prior to 2012 these charges were allocated to all wire centers, beginning in 2012, all Drop is to the Amsterdam wire center)
FEV	Fleet, Capital Tools & Test Equipment
HSI BANDWIDTH AUGMENTATION	Increases HSI Bandwidth Capacity
HSI EXISTING MARKET EXPANSION	New HSI coverage via CO-IP & Remote Terminals including any FTTN/FTTH and CAF (Connect America Fund) investments
HSI Growth	Card additions to supply HSI subscriber demand
INVENTORY & ADJUSTMENTS	Capitalized Inventory, Accounting Adjustments, Accruals and other Miscellaneous Capital
MARKETABLE REVENUE	Co-location, E911 and Voice Mail Services
MARKETABLE REVENUE – FTTT	Fiber To The Tower services for Wireless Carriers
NATIONAL SALES	Success Based Customer Sales (Business, Wholesale, Federal & Consumer) within the state that are funded on a National basis
NETWORK PLAN – ACCESS	Local Network Access (Distribution & Feeder), Commercial Developments, High Cap Circuits (DS1 & Above), Line Extension, OSP Rehab & OSP Preservation (Like-for-Like Plan Replacements)
NETWORK PLAN – SWITCHING	Switch Growth, Upgrades, Replacements, ISDN, Switch Preservation (Like-for-Like Plan Replacements)
NETWORK RELIABILITY	Network Power (Generators, CO & OSP Batteries), Network Monitoring
NEW RES DEVELOPMENTS	Build out of New Residential Subdivisions
REAL ESTATE	Network Related Real Estate Investments

ROADMOVES	Relocation of Cables and Loop electronics mandated by jurisdictional road work activities
SPECIAL CIRCUITS/CARDS	PICS card growth for subscriber demand, like-for like replacements and maintenance spares. (Note: Cards shipped from warehouse inventory are not charged to specific projects, prior to 2012 these charges were allocated to all wire centers, beginning in 2012, all Special Circuits/Cards are charged to the Amsterdam wire center)
TRANSPORT / IP - ETHERNET CORE	Inter-office Facilities (IOF) Growth, Reconfigurable Optical Add-Drop Multiplexer (ROADM) Transport, Microwave Radio Transport, MOE Metro Optical Ethernet, Fiber Diversity

The construction expenditures in the company’s network project tracking systems used to respond to parts “b,” “c” and “d” of this data request do not measure the same activity as the additions to net plant used to respond to part “a” of this data request. Construction expenditures measures expenditures during a given year on construction projects; additions to net plant measure the dollar value of plant turned-up for service in a given year. Hence, the two data sources measure different financial activities (construction expenditures vs. plant put into service) and recognize those activities at different times (when the expenditure is incurred vs. when the capitalized cost is placed in service). In addition, the project tracking systems do not capture the total dollar value of all plant costs turned-up for service. Following is a calculation rounded to the nearest thousand dollars of the difference over the 15-year period of 2000 through 2014.

Total Additions to Net Plant in Service (response to part a)	\$443,476,000
Total Construction Projects (response to parts b, c and d)	<u>\$396,986,000</u>
Difference	\$46,490,000

MCC-001 Confidential Attachment B contains a worksheet entitled “*f.Difference ATNPS vs CP*” that provides a year-by-year calculation of the difference for the 15-year period of 2000 through 2014. CenturyLink QC does not have a reconciliation of the difference and does not have the data necessary to prepare such reconciliation.

CenturyLink QC is not providing *MCC-001 Confidential Attachment B* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect from public disclosure the confidential data it contains. If printed, *MCC-001 Confidential Attachment B* would consume over 650 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-001 Confidential Attachment B* as an electronic spreadsheet only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-001 Confidential Attachment B* pursuant to Montana PSC Order No. 7388e which grants CenturyLink’s motion to protect from public disclosure the confidential data it contains.

Respondent: Ray Graeve, Lead Analyst, Network Capital Planning and Phil Grate,

Director Regulatory and Legislative Affairs, formerly Director Regulatory Finance.

MCC-002

Request: Regarding CenturyLink's October 17, 2014 [oral presentation] to the Commission and the attached slide presentation, slides 3 and 4, please provide in electronic spreadsheet or database format and in paper format:

- a. The addresses for the households where FTTN is deployed.
- b. The addresses for the households where COIP is deployed.
- c. The addresses for households where bonded solution is deployed.
- d. The addresses for households where FTTH is deployed.

Response:

a. Please see *MCC-002 Confidential Attachment A*, which provides the addresses where FTTN has been deployed as of December 31, 2014. Please note that the data in *MCC-002 Confidential Attachment A* does not agree with the numbers in slide 3 of the October 17, 2014 presentation for the following reasons: (1) *MCC-002 Confidential Attachment A* provides data as of December 31, 2014, while slide 3 of the October 17, 2014 presentation provides data as of August 2014; (2) Slide 3 of the October 17, 2014 presentation provides data only for downstream speeds of 7, 12, 20 and 40 mbps, while *MCC-002 Confidential Attachment A* provides data for 1.5, 3, 5, 7, 12, 20, 40, 60, 80 and 100 mbps; (3) The data in Slide 3 of the October 17, 2014 presentation includes only residential locations while the data in *MCC-002 Confidential Attachment A* includes both residential and business locations.

CenturyLink QC is not providing *MCC-002 Confidential Attachment A* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-002 Confidential Attachment A* would consume 1,589 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-002 Confidential Attachment A* as an electronic spreadsheet only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-002 Confidential Attachment A* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

b. Please see *MCC-002 Confidential Attachment B*, which provides the addresses where COIP has been deployed as of December 31, 2014. Please note that the data in *MCC-002 Confidential Attachment B* does not agree with the numbers in slide 3 of the October 17, 2014 presentation for the following reasons: (1) *MCC-002 Confidential Attachment B* provides data as of December 31, 2014, while slide 3 of the October 17, 2014

presentation provides data as of August 2014; (2) Slide 3 of the October 17, 2014 presentation provides data only for downstream speeds of 7, 12 and 20 mbps, while *MCC-002 Confidential Attachment B* also provides data for 1.5, 3 and 5 mbps; (3) The data in Slide 3 of the October 17, 2014 presentation includes only residential locations while the data in *MCC-002 Confidential Attachment B* includes both residential and business locations.

CenturyLink QC is not providing *MCC-002 Confidential Attachment B* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-002 Confidential Attachment B* would consume 5,316 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-002 Confidential Attachment B* as an electronic spreadsheet only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-002 Confidential Attachment B* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

c. Please see *MCC-002 Confidential Attachment C*, which provides the addresses where Bonding has been deployed as of December 31, 2014. Please note that the data in *MCC-002 Confidential Attachment C* does not "add up" to the numbers in slide 3 of the October 17, 2014 presentation for the following reasons: (1) *MCC-002 Confidential Attachment C* provides data as of December 31, 2014, while slide 3 of the October 17, 2014 presentation provides data as of August 2014; (2) Slide 3 of the October 17, 2014 presentation provides estimates of CenturyLink's plan at the time to deploy a bonded pair solution, while *MCC-002 Confidential Attachment C* provides actual deployment data. Based on trials and further analysis, the universe of locations where bonding is being deployed has been reduced. (3) The data in Slide 3 of the October 17, 2014 presentation includes only residential locations while the data in *MCC-002 Confidential Attachment C* includes both residential and business locations.

CenturyLink QC is not providing *MCC-002 Confidential Attachment C* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-002 Confidential Attachment C* would consume 2,760 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-002 Confidential Attachment C* as an electronic spreadsheet only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-002 Confidential Attachment C* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

d. Please see *MCC-002 Confidential Attachment D*, which provides the addresses where FTTH has been deployed as of December 31, 2014. Please note that the data in *MCC-002 Confidential Attachment D* data does not "add up" to the numbers in slide 4 of the October 17, 2014 presentation for the following reasons: (1) *MCC-002 Confidential Attachment D* provides data as of December 31, 2014, while slide 4 of the October 17, 2014 presentation provides data as of August 2014; (2) Slide 4 of the October 17, 2014

presentation describes planned FTTH developments. As of the end of 2014, some of these developments have not been completed and therefore are not included in *MCC-002 Confidential Attachment D*.

CenturyLink QC is not providing *MCC-002 Confidential Attachment D* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-002 Confidential Attachment D* would consume 10 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-002 Confidential Attachment D* as an electronic spreadsheet and will provide a paper printout of that spreadsheet upon request.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-002 Confidential Attachment D* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

Respondent: Jacob Barlow, Regulatory Operations manager and Robert Brigham, Regulatory Operations Director

MCC-003

Regarding CenturyLink's October 17, 2014 presentation to the Commission and the attached slide presentation, slide 4, please provide, in electronic spreadsheet or database format and in paper format, the census block and wire center where there is a cell tower that is served by the Fiber to the Cell Tower initiative.

Objection: CenturyLink QC objects to this request on the grounds that it seeks information that not reasonably calculated to lead to the discovery of admissible information and seeks information that is not relevant to this investigation. The Commission does not regulated the provision of fiber services to cellular towers.

Response: Notwithstanding the objection and without waiving it, CenturyLink QC is providing the requested data which are contained in an electronic spreadsheet in Excel file format entitled:

MCC-003 Confidential Attachment A.

CenturyLink QC is not providing *MCC-003 Confidential Attachment A* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-003 Confidential Attachment A* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

Respondent: Robert Brigham, Regulatory Operations Director

MCC-004

Request: Regarding CenturyLink's October 17, 2014 presentation to the Commission and the attached slide presentation, slides 3 and 5, please explain what causes the difference between the 193,223 households with fiber fed service shown on slide 3 and the 147,000 access lines shown on slide 5. Provide a work paper in electronic spreadsheet or database format that supports your explanation.

Response: The 193,223 households on page 3 of CenturyLink's October 17, 2014 presentation to the Commission represents only households that are *enabled* with fiber-fed services. These households may or may not purchase service from CenturyLink. The 147k access lines listed on page 5 of the presentation represents actual CenturyLink QC voice access lines in service. These customers purchase voice service from CenturyLink QC using several technologies including fiber and copper.

Respondent: Robert Brigham, Regulatory Operations Director

MCC-005

Does CenturyLink resell video services to any customers in Montana? If so, please provide:

- a. The date when the service was first offered.
- b. The number of customers purchasing this service by wire center on December 31, 2011, 2012 and 2013.
- c. List the companies whose video services CenturyLink resells.

Objection: CenturyLink QC objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible information and seeks information that is not relevant to the issues in this case.

Response to "a," "b" and "c": Notwithstanding the objection and without waiving it CenturyLink QC responds that CenturyLink QC has never resold video services in Montana. CenturyLink has an agreement with DirecTV under which CenturyLink markets and bills DirecTV satellite services as part of a bundle of services. However, under this agreement, CenturyLink acts as DirecTV's sales and billing agent only; DirecTV provides the video service under its own brand and maintains the customer relationship.

Respondent: Robert Brigham, Regulatory Operations Director

MCC-006

Request: Does CenturyLink provide video services as part of a joint marketing arrangement to any customers in Montana? If so, please provide:

- a. The date when the service was first offered.
- b. The number of customers purchasing this service by wire center on December 31, 2011, 2012 and 2013.
- c. List the companies that CenturyLink has joint marketing arrangements with.

Objection: CenturyLink QC objects to this request on the grounds that it is not reasonably calculated to lead to the discovery of admissible information and seeks information that is not relevant to the issues in this case.

Response to “a,” “b” and “c”: Notwithstanding the objection and without waiving it CenturyLink QC responds that CenturyLink QC has never provided video services in Montana. CenturyLink has an agreement with DirecTV under which CenturyLink markets and bills DirecTV satellite services as part of a bundle of services. However, under this agreement, CenturyLink acts as DirecTV’s sales and billing agent only; DirecTV provides the video service under its own brand and maintains the customer relationship.

Respondent: Robert Brigham, Regulatory Operations Director

MCC-007

Request: Regarding CenturyLink’s October 17, 2014 presentation to the Commission and the attached slide presentation, slide 10, please provide, in electronic spreadsheet or database format and in paper format, the number of living units and CenturyLink voice service customers by wire center.

Response: The data used for the chart on slide 10 of CenturyLink’s October 17, 2014 presentation to the Commission is as follows:

% LU with QC Voice	Number of Wire Centers
0-10%	4
11-20%	14
21-30%	17
31-40%	22
41-50%	12
51-60%	1

61-70%	2
71-80%	0

These data are derived from confidential Living Unit data provided in an attachment to this response that is a worksheet in Excel file format entitled

MCC-007 Confidential Attachment A.

CenturyLink QC is not providing *MCC-007 Confidential Attachment A* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-007 Confidential Attachment A* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

Respondent: Robert Brigham, Regulatory Operations Director

MCC-008

Request: Please provide, in electronic spreadsheet or database format and in paper format, the number of total switched access lines and the number of residential access lines by census block as of December 31, 2013.

Response: The requested data are contained in an electronic spreadsheet in Excel file format entitled:

MCC-008 Confidential Attachment A.

This file provides the number of total switched access lines and the number of residential switched access lines by census block as of December 31, 2013, as contained in CenturyLinkQC's mapping database.

In order to provide the access lines by census block, CenturyLink QC had to perform additional processing of the mapping data. As a result, the count of access lines from the mapping database is close to but not exactly the same as the December 31, 2013 count of access lines shown on Schedule 23 of CenturyLink QC's 2013 annual report to the Montana PSC. A reconciliation of the difference follows:

	Total	Residential
Access lines per mapping database	142,395	73,579
Official Company access lines	5,107	
Access lines that cannot be mapped	286	
Un-reconciled difference	-38	-196
Access Lines Per Schedule 23	147,750	73,383

CenturyLink QC is not providing *MCC-008 Confidential Attachment A* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-008 Confidential Attachment A* would consume 452 pieces of paper. Accordingly, CenturyLink QC will provide *MCC-008 Confidential Attachment A* as an electronic spreadsheet only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-008 Confidential Attachment A* pursuant to Montana PSC Order No. 7388e which grants CenturyLink’s motion to protect from public disclosure the confidential data it contains.

Respondent: Jacob Barlow, Regulatory Operations Manager

MCC-009

Request: Please provide every document or filing provided to the FCC or the Universal Service Administrative Company regarding any FCC universal program for the years 2005 through the present for both Qwest and for CenturyLink.

Objection: CenturyLink QC objects to this request on the grounds that some of the information it seeks is information that is not reasonably calculated to lead to the discovery of admissible evidence in this docket. In addition, the request is overly broad and unreasonably burdensome. The request is for “every document or filing...regarding any FCC universal program.” The FCC provides universal service support through four mechanisms:

1. High Cost Support Mechanism provides support to certain qualifying telephone companies that serve high cost areas, thereby making phone service affordable for the residents of these regions.
2. Low Income Support Mechanism assists low-income customers by helping to pay for monthly telephone charges as well as connection charges to initiate telephone service.
3. Rural Health Care Support Mechanism allows rural health care providers to pay rates for telecommunications services similar to those of their urban counterparts, making telehealth services affordable.
4. Schools and Libraries Support Mechanism, popularly known as the "E-Rate," provides telecommunication services (e.g., local and long-distance calling, high-speed lines), Internet access, and internal connections (the equipment to deliver these services) to eligible schools and libraries.

Thus, the request asks for every report or filing made under these four mechanisms. In addition, the Low Income Support Mechanism, the Rural Health Care Support Mechanism and the Schools and Libraries Support Mechanism have no relevance to the issues in this docket. Accordingly, CenturyLink QC objects to providing information regarding these three federal universal service support mechanisms.

The request also seeks the requested information “for both Qwest and for CenturyLink.” CenturyTel of Montana d/b/a CenturyLink (“CenturyLink”) is not a party to this docket and does not provide service in any of the areas that CenturyLink QC serves. This docket pertains to CenturyLink QC only. Accordingly, CenturyLink QC objects to providing reports filed by CenturyTel of Montana because they have no relevance to the issues in this docket.

Finally, although the issues in this docket pertain to Montana only, the request is not limited to information pertaining to Montana only. Accordingly, CenturyLink QC objects to providing any information that pertains to jurisdictions other than Montana.

Response: Notwithstanding the objection and without waiving it, CenturyLink QC is providing a total of 169 reports filed by CenturyLink QC with the FCC or the Universal Service Administrative Company regarding the FCC’s High-Cost Support Mechanism and the FCC’s Connect America Fund for the years 2005 through the present for the state of Montana. Please see attached MCC-009 Exhibits for filings (High Cost Model Support Exhibits 1 – 116, Interstate Access Support Exhibits 117 - 163, Form 481 Exhibits 164 - 166, and Rate Floor Exhibits 167 - 169 Filings) made with USAC, NECA & FCC for the requested period. Interstate Access Support and High Cost Model Support filings were required through 2011. Beginning 2012 in connection with the FCC’s Transformation Order, Connect America Fund reporting commenced.

CenturyLink QC has redacted certain confidential information in Exhibits 164 and 166 and is not providing that information with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. CenturyLink QC has not determined how many sheets of paper would be consumed by printing all 169 attachments but is confident it would be more than 169 sheets. Accordingly, CenturyLink QC will provide these attachments electronically and will not provide printed copies of them.

May 6, 2015 Supplemental Response: On March 10, 2015, CenturyLink QC supplemented its response to MCC-009 by providing Exhibit 166 without redaction. With this supplemental response CenturyLink QC is providing an unredacted Exhibit 164 pursuant to Montana PSC Order No. 7388e which grants CenturyLink’s motion to protect from public disclosure the confidential data it contains.

Respondent: CenturyLink QC Legal and Ken Buchan, Manager, Regulatory Finance

MCC-010

Request: Please provide a state of Montana cash flow table for the years 2009 through 2013. Please provide the workpapers and underlying files in Excel or other electronic format.

Response: CenturyLink QC is unable to fulfill this request because CenturyLink QC does not account for cash flow by state, does not maintain balance sheets by state, does not prepare statements of cash flows by state and, therefore, does not have a cash flow table for Montana for any of the years requested.

Respondent: Phil Grate, Director Regulatory and Legislative Affairs, formerly Director Regulatory Finance.

MCC-011

Request: Please provide all Leadership scoreboard reports for every Montana exchange for 2013 and 2014 for CenturyLink QC. Please provide the workpapers and underlying files in Excel or other electronic format.

Response: The requested information is provided in two confidential attachments:

1. *MCC-011 Confidential Attachment A* is a worksheet in Excel file format containing the Vital Few Leadership Scorecard for every CenturyLink QC Montana exchange for 2013.
2. *MCC-011 Confidential Attachment B* is a worksheet in Excel file format containing the Vital Few Leadership Scorecard for every CenturyLink QC Montana exchange for 2014.

CenturyLink QC is not providing *MCC-011 Confidential Attachment A* and *MCC-011 Confidential Attachment B* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure. If printed, *MCC-011 Confidential Attachment A* and *MCC-011 Confidential Attachment B* would consume more than 140 pieces of paper. Accordingly, CenturyLink QC will provide these attachments as electronic spreadsheets only.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-011 Confidential Attachment A* and *MCC-011 Confidential Attachment B* pursuant to Montana PSC Order No. 7388e which grants CenturyLink's motion to protect from public disclosure the confidential data it contains.

Respondent: Phil Grate, Director Regulatory and Legislative Affairs

MCC-012

Request: Please provide an electronic wire center boundary map for the CenturyLink wire centers in the state of Montana in an ESRI Shape file or in a format that can be imported by an ERSI software package.

Response: *MCC-012 Attachment A* is a computer file that contains an electronic wire center boundary map for the CenturyLink wire centers in the state of Montana in an ESRI Shape file.

Respondent: Jacob Barlow, Regulatory Operations Manager

MCC-013

Request: Regarding your response to PSC 003, please provide all documents and work papers that support your \$20 per-foot estimate of the cost of replacing open wire.

Response: The \$20 per-foot estimate is based on the respondent's experience as an engineering and construction manager for CenturyLink and on the opinions he solicited from the engineers he supervises.

Prompted by this question, the respondent conducted an analysis of the average cost per foot of 80 CenturyLink Montana construction jobs closed in 2014 to place buried cable. The analysis shows the average cost for the 80 projects is \$11.53 per foot. The respondent and his engineers believe the cost per foot to replace open wire is likely to be substantially greater than \$11.53 per foot because open wire is more often located in remote areas where placement of cable can require placement through solid rock and cobble.

Respondent: Ronald Smith, Manager, Engineering and Construction

MCC-014

Request: Regarding your response to PSC 004, please provide all documents and work papers that support your \$157 million estimate of the cost of replacing analog carrier systems. Include in your response the locations and models of the switches that are not integrated. Include in your response an explanation of whether the technologies used to determine the cost estimate are compatible with the provisioning of Ethernet and VoIP services.

Response: The estimate includes the following cost components and amounts:

Cost Component	Amount
Interoffice Fiber	\$39,065,000
Rate Center Consolidation	19,100,000

Data Backhaul	300,000
Remote Terminals	5,792,000
Local Fiber	<u>92,780,000</u>
Total	\$157,037,000

MCC-014 Confidential Attachment A is a copy of the spreadsheet in Excel file format in which CenturyLink QC computed the \$157 million estimate. CenturyLink QC is not providing *MCC-014 Confidential Attachment A* with this March 6, 2015 response pending the granting of a protective order by the Montana PSC to protect this confidential data from public disclosure.

May 6, 2015 Supplemental Response: CenturyLink QC is providing *MCC-014 Confidential Attachment A* pursuant to Montana PSC Order No. XXXX which grants CenturyLink’s motion to protect from public disclosure the confidential data it contains. The following narrative explains why the various costs estimated above and in *MCC-014 Confidential Attachment A* would be incurred to replace analog carrier systems.

In response to PSC-003(d) CenturyLink QC provided *PSC-003(d) Attachment C* which shows that CenturyLink QC has 242 analog carrier systems in Montana. It also shows that 38 of the 242 analog carrier systems serve no customers. The data reported in *PSC-003(d) Attachment C* also shows that the 204 analog carrier systems that still serve customers serve a total of 1207 customers. The 204 serving analog carrier systems operate out of 36 different CenturyLink QC wire centers.

Analog carrier is a technology that allows a telephone service provider to provide basic voice service over copper wire to customers located between 50,000 and 120,000 feet from the central office switch that serves the wire center in which the customer is located. Newton’s Telecom Dictionary defines analog carrier as follows:

Analog Carrier: The first carrier-loop system, which emerged during the 1970’s and was used to provide improved voice-quality transmission to subscribers who were located at distance too remote to be served by the central office. In this system, multiplexing occurred at the central office, and there was little value added at the analog box deployed on the subscriber side. While analog carriers did provide an advantage over previous systems, they were difficult to install and often resulted in inconsistent quality of service.

As imperfect as analog carrier is (and always was), there is no other commercially available carrier solution that can provide voice service over copper wire at the great distances over which CenturyLink QC uses it. At this juncture the only *wireline* solution that can provide voice service over such great distances with better quality and reliability is optical fiber. As noted above, the total estimated cost to replace the analog carrier systems in Montana is \$157,037,000. The cost is comprised of several components.

First, of the total \$157,037,000 estimated cost to replace analog carrier in CenturyLink QC’s network, \$92,780,000 represents the outside plant (OSP) cost to deploy optical

fiber to connect customers to the central offices of the 36 wire centers. This total and the estimated cost for each wire center is shown in Excel file column H of *MCC-014 Confidential Attachment A*. The estimate is based on the local fiber route and DA/rural line measured in kilofeet multiplied by \$20,000 per kilofeet. The \$20,000 per kilofeet estimate includes the cost of permits, ducts and other associated costs. The cost of OSP optical fiber could vary depending on actual field conditions (rock, streams, easements). In most cases, no fiber exists in the route today.

Second, \$19,100,000 of the \$157,037,000 represents switching costs related to rate center consolidation. Telephone switches have two general ways to connect end-customer telephone (POTS) circuits to the switch: universal or integrated interfaces. Universal interfaces essentially connect the copper pair feeding the POTS circuit directly to the switch at a voice grade circuit level. That is, there is one physical copper pair connection to the switch for every POTS line. In contrast, integrated interfaces allow a switch to directly connect with a DS1 circuit that represents 24 POTS lines (or more if the multiplexing process includes time-slot interchanging; this is the difference between TR008 and TR303 integration). The digital integrated interface allows POTS lines to be multiplexed into a DS1 (or higher) level at an interface in the loop plant (e.g., at a feeder-distribution interface), and then be delivered over feeder facilities directly into the switch at the DS1 (or higher) level. On some switches, the integrated DS1s can be multiplexed together into DS3s or OC-n bandwidths to create larger integration groups using optical connections.

Of the 36 wire centers in the study, 27 have switches with only universal connection capability (these are labeled “Universal” in column AB of *MCC-014 Confidential Attachment A*). These universal connections must be replaced if the areas in the 27 wire centers are to be served with fiber loops, which require a digital integrated interface. One solution would be to replace the existing universal switch with an integrated switch. However, this is not a viable option because integrated switches have long been manufacturer discontinued. A remaining option is to merge (consolidate) each wire center served by a switch with a universal interface into a wire center served by a switch with an integrated interface. In order to do this, the wire centers must be consolidated into one rate center so that call routing and billing can be performed properly. This is known as rate center consolidation.

Under rate center consolidation, the universal switches are decommissioned and the central offices where the decommissioned switches are located become “remote” to the central offices equipped with integrated switches (the “host” central offices). In order for a host central office to serve the integrated switching needs of a remote central office (including 9-1-1 service), equipment must be placed at both the remote central office and the host central office. The estimated cost of the equipment appears in Excel file column D of *MCC-014 Confidential Attachment A*. The estimated cost for all 27 wire centers is \$19,100,000.

Third, in order for a host central office to serve the integrated switching needs of a remote central office in the same (consolidated) rate center, the host and remote must be connected by an optical fiber interoffice facility (IOF). Some of the 27 wire centers have

optical fiber IOF of sufficient capacity that no additional IOF deployment would be necessary. Other wire centers would require deployment of optical fiber IOF to the host switch. Some of the remote central offices in question have optical fiber IOF, but lack spare fiber pairs. Some have optical fiber IOF spliced with older methods such as roto-mechanical, which degrades the optical path such that the required higher capacity IOF circuits cannot work. The required splicing upgrades would necessitate re-splicing between the host and remote central offices using newer methods such as fusion splicing. The IOF between other host and remote central offices is copper cable or radio which would need to be replaced with new optical fiber IOF to provide the transport capacity necessary for an integrated switch in the host central office to serve the remote central office. The estimated cost of the optical fiber IOF is found in Excel file column C of *MCC-014 Confidential Attachment A*. The total estimated cost of optical fiber IOF for those wire centers that require it is \$39,065,000.

Fourth, Excel file column F of *MCC-014 Confidential Attachment A* contains an estimate of the cost of Remote Terminals (RT) that would need to be deployed to provide voice service currently provided by S6B and S6A analog carrier systems. The total estimated cost is \$5,792,000

Fifth, Excel file column E of *MCC-014 Confidential Attachment A* contains an estimate of costs of facilities for data backhaul in three wire centers equipped with 5ESS model switches and Metro Optical Ethernet (MOE). The wire centers equipped with MOE are identified in Excel file column P of *MCC-014 Confidential Attachment A*. The total estimated cost is \$300,000.

MCC-014 asks for “an explanation of whether the technologies used to determine the cost estimate are compatible with the provisioning of Ethernet and VoIP services.” The technologies used are compatible with the provisioning of Ethernet and VOIP services but do not, in and of themselves, provide Ethernet and VIOP services. Because CenturyLink does not offer a Consumer VOIP product, the study did not consider VOIP solutions.

Respondents: Sue Spitze, Manager Local Network Planning and Capacity I, and Robert Larson, Director Local Network Planning



CERTIFICATE OF SERVICE

I HEREBY CERTIFY that true and correct copies of the foregoing were served on May 6, 2015, in the manner shown and addressed as follows:

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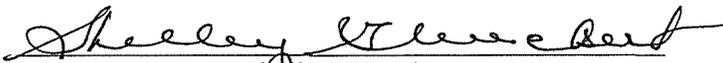
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DATED this 6th day of May, 2015


Shelley Glueckert