BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Joint Application of FRONTIER COMMUNICATION CORPORATION AND VERIZON COMMUNICATIONS, INC. for Approval of Indirect Transfer of Control of Verizon Northwest, Inc.	DOCKET UT-090842

TESTIMONY

OF

ROBERT T. WILLIAMSON

STAFF OF

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION

November 3, 2009

REDACTED VERSION

HIGHLY CONFIDENTIAL PER PROTECTIVE ORDER

TABLE OF CONTENTS

EXHIBIT LIST

Exhibit No. ___ (RTW-2)   Qualifications

I.   INTRODUCTION

Q.   Please state your name and business address.

A.   My name is Robert Williamson, and my business address is 1300 South Evergreen

Park Drive Southwest, P.O. Box 47250, Olympia, Washington, 98504-7250. My

business e-mail address is bwilliam@utc.wa.gov.

Q.   By whom are you employed and in what capacity?

A.   I am employed by the Washington Utilities and Transportation Commission as a

Utility Engineer in the Telecommunications Section.

Q.   Please state your qualifications to provide testimony in this proceeding.

A.   I have provided a description of my qualifications as Exhibit No. ____ (RTW-2).

Q.   Have you presented testimony before this Commission in other cases?

A.   Yes I have. I testified in docket UT-011439 concerning a petition for a line

extension waiver, docket UT-030614 concerning a petition by Qwest for competitive

classification of business services, docket UT-031472 concerning a case referred to

the Commission from the U.S. District court in regards to a IP-in-the-middle

telecommunications company bypassing Access Charges, and docket UT-063038

concerning Inter-Carrier Compensation for ISP bound traffic.

1 **Q.** **What is the purpose of your testimony?**

2 A. On behalf of the Commission Staff, I address issues surrounding the conversion of

3 operations support systems ("OSS" or "systems") that will occur as a result of the

4 transfer of control of Verizon Northwest, Inc. from Verizon Communications, Inc.

5 ("Verizon") to Frontier Communications Corporation ("Frontier"). I will first

6 provide a general explanation of what OSS are and what they are used for. I will then

7 compare the systems conversions that are expected to occur as a result of the current

8 transaction, with the systems conversions made necessary by Verizon's sale of its

9 Hawaiian Tel properties to the Carlyle Group, and then by the Verizon sale of its

10 properties in Maine, New Hampshire, and Vermont to FairPoint Communications. I

11 further discuss the risks associated with Verizon's plan to make a copy of its systems

12 prior to close of the transaction, and Frontier's plan to migrate customer and

13 organizational data from those copied Verizon systems to its own systems sometime

14 after the transaction is completed. Finally, I provide recommendations on limiting

15 possible negative effects of both conversions.

16

17   **II. OVERVIEW OF OPERATIONS SUPPORT SYSTEMS**

18

19 **Q.** **What are operations support systems (OSS)?**

20 A. Operations support systems are generally the computer hardware and software that

21 perform management, ordering, inventory, engineering, planning, repair, and billing

22 functions for telecommunications service providers. Originally, most OSSs were

23 manual systems that were replaced with main-frame based, stand-alone systems

1   designed to support telephone company staff. These systems were designed to make

2   manual processes, through which a telephone network was operated, more efficient.

3   Today's service providers are required to manage a much more complex set of

4   services and network technologies, and in most cases the providers use information

5   technology like routers and servers to host the systems.

6   Failures associated with OSSs can have a direct negative effect on customer

7   service as seen in the cases in Hawaii and the New England states which I will

8   discuss in more detail below.

9

10 **Q.   What are some of the systems that make up a telecommunication's company's**

11   **operations support systems?**

12 A.   What follows is a partial list of general systems that can make up a company's OSS:

13   Management - Overall management of the systems is normally provided by

14 some type of "workflow engine" that manages the flow of information from system

15 to system and checks off tasks with other processes as it goes.

16   Ordering - Ordering systems contain all the information necessary for the

17 company to provide service in response to a customer's order. The services range

18 from basic residential telephone service to complex services like channelized T1s,

19 Integrated Subscriber Digital Network (ISDN), Digital Subscriber Line (DSL), and

20 many others. Most ordering systems utilize some type of graphical user interface

21 that assists the company's sales people through the ordering process. Once the sales

22 representative enters the order into the system, the ordering system generates specific

23 tasks that must be completed to activate service on the network. This system passes

1 those tasks on to other systems where required, which in turn updates the ordering

2 system as those tasks are completed. The work flow engine generally supervises

3 those tasks and ensures completion.

4 <u>Inventory</u> - A telecommunications carrier stores all of its information

5 regarding the facilities and equipment available in its network in an inventory

6 system. The inventory system must be queried by the ordering system to determine

7 whether the requested service can be applied. The inventory system must contain a

8 real time accounting of what equipment is available to be used, or what must be

9 ordered and installed to provide all types of services.

10 <u>Engineering, Circuit Design and Provisioning</u> - These systems manage and

11 track equipment and circuits that physically provide service and that are to be

12 assigned for *eventual* use. The engineering and provisioning systems are used to

13 make sure that future capacity is available to provide service. The design portion

14 involves specifying which equipment and network routes a given service will utilize.

15 As an example, if a T1 service is requested, channels, ports, cards, and circuits must

16 be assigned on any combination of multiplexers, digital cross-connect systems, T3

17 facility circuits, or synchronous optical network (SONET) channels and network

18 routes connecting network locations to the users.

19 <u>Element management, Activation and Field Management</u> - These systems

20 activate services on the network. If new equipment or lines must be installed, or if

21 equipment or lines must be configured manually, the systems will notify the field

22 service management system so that technicians can be dispatched. Some service

23 providers use a flow-through provisioning and activation system, combining

1 provisioning and activation, to automatically activate service on network elements

2 such as a switch, multiplexer, or cross connect system. Element management

3 systems are two-way systems that activate service and provide status back to the

4 engineering and provisioning systems as well as billing.

5   Billing - The billing system requires input from a number of other OSS

6 functions. Ordering, inventory, circuit design, provisioning, and others must come

7 together through the management system to bill line type (e.g. business or

8 residential) and features (e.g., voice mail, caller identification) for each line.

9 Automatic message accounting also collects records of long distance calls including

10 the time, length and carrier used through the management function to create billing

11 records. Taxes and fees are added depending on the state, county and city in which

12 the customer lives. The network and trouble management functions may pass along

13 outage information for reduction of billing in some locations. Installation charges

14 may be added to the billing system for new services. Customer information may be

15 stored and available to each customer on the web. Billing systems are the end

16 product of OSSs and as such, require information from many of the other systems.

17 The improper functioning of billing systems has been a major problem in past OSS

18 replacements.

19   Network and Trouble Management - OSSs must go beyond service activation

20 and billing. Network and trouble management systems are two of the most critical

21 elements of the OSS. These two systems are responsible for the overall supervision

22 of a network. They monitor traffic, collect statistics regarding network performance,

23 and send traffic data to the engineering system. These systems are also responsible

1   for spotting trouble on a network, or particular network elements, and identifying the

2   cause. Company employees monitor graphical displays that are part of the network

3   management systems at a facility called a Network Operations Center. If the

4   Network Management system identifies trouble on a system (such as a service

5   outage), it passes information on to the Trouble Management system that logs the

6   problem, along with customer complaints, and issues a trouble ticket that begins the

7   repair process. A trouble management system in an integrated OSS environment can

8   send commands to appropriate systems such as field service management, to

9   dispatch technicians.

10   Each of these systems requires some degree of employee training, which can

11   be very intense and in-depth, as a well-written set of business practices. Whatever

12   their design and sophistication, OSSs make up an incredibly complex web of mostly

13   inter-connecting, very specialized systems.

14

15   **Q.   How are competitive local exchange carriers (CLECs) that interconnect with**

16   **and obtain network elements from an incumbent local exchange carrier (ILEC)**

17   **connected with the ILEC's systems?**

18   A.   A significant amount of the effort involved in implementing the Telecommunications

19   Act of 1996 dealt with OSS interconnection. Regulations require the ILECs to allow

20   competitors limited access to their customer databases and various OSS functions

21   such as pre-ordering, ordering, and provisioning. Each of the ILECs has built

22   interfaces into which a CLEC can connect its own systems. Most of the larger

23   ILECs, like Verizon, have built sophisticated interfaces allowing CLECs to access

1   their OSSs in a manner similar to the way the ILEC's own personnel access their

2   OSSs. Many of the smaller more rural ILECs, like Frontier, allow interconnection to

3   their systems in less sophisticated ways, which may be much more manually driven

4   and time consuming.

5

6   **III. HISTORICAL VERIZON SPIN-OFFS**

7

8   **Q.   Please explain what has happened with the last two Verizon sales of access lines.**

9   A.   There have been two previous major spin offs of subscriber lines from Verizon in

10   recent history. Verizon sold off its Hawaii wireline business to the Carlyle Group

11   (Hawaiian Telecom) in 2005 and then spun-off its wireline assets in Maine, New

12   Hampshire, and Vermont to FairPoint Communications in 2008. Both have turned

13   out to be disasters for the states and customers involved due to the failure to

14   successfully convert the legacy Verizon OSSs to the purchasing companies' new

15   systems.

16

17 **Q.   Describe the sale of Verizon's Hawaii Telecom.**

18 A.   Hawaiian Telephone Company was a wholly owned subsidiary of General

19   Telephone & Electronics (GTE) until Verizon acquired GTE in the 1990s, including

20   GTE's Hawaiian assets. In 2004, Verizon sought approval to sell its Hawaiian assets

21   to the Carlyle Group, a private equity firm that previously had acquired DEX yellow

22   pages from Qwest. The Carlyle Group asked to provide the state of Hawaii with local

23   exchange services similar to those provided by GTE through the newly formed

1   Hawaiian Telecom (HT). The Public Utilities Commission of Hawaii (HPUC)

2   approved the transfer subject to conditions in 2005.[1]

3   Although the parties had a detailed plan to convert the company's critical

4   back-office systems, or OSS, the systems lacked sufficient functionality, and

5   significant problems occurred. Massive failures of automated systems created

6   problems for both retail and wholesale customers. Because so many customers

7   experienced service problems, regional call centers (repair, business office, etc.)

8   could not handle the additional volume and customers experienced dropped calls,

9   long call answering times and long holding times. Billing issues were prevalent but

10   customers couldn't reach business offices to complain. The problems were so

11   pervasive that HT couldn't track repair and installation times to compute reports

12   required by HPUC. The total back-office disaster also created major problems for

13   HT's wholesale customers as well as its retail customers. Wholesale customer Time

14   Warner Telecom for Hawaii summarized the problem: "HT's conversion to its new

15   back office systems was a failure by any measure. Immediately following cut-over,

16   virtually none of the wholesale back office systems were functioning. Today, 19

17   months after cut-over, they are still not functioning at the same level as the Verizon

18   systems."[2]

19

---

[1] HPUC Docket No. 04-0140, Decision and Order No. 21696, March 16, 2005.
[2] Time Warner of Hawaii, d/b/a Oceanic's Post-hearing Brief, HPUC Docket No. 2006-0400, p. 2 (November 9, 2007).

1   HT filed for Chapter 11 bankruptcy protection on December 1, 2008.[3] The cost of

2   lost customers resulting from poor service quality and additional costs from its

3   attempt to reconstitute a working OSS most likely contributed to the company's

4   failure.

5

6 **Q.   Please describe the sale of Verizon's New England assets to FairPoint**

7   **Communications.**

8 A.   Formed in 1984 as a result of the Bell System Divestiture, NYNEX served New

9   York and the New England states as a newly created Regional Bell Operating

10   Company. In 1997 Bell Atlantic acquired NYNEX and on June 30, 2000, Bell

11   Atlantic acquired GTE, forming Verizon Communications. On March 31, 2008,

12   Verizon sold off the former NYNEX wireline and related operations in Maine, New

13   Hampshire, and Vermont to FairPoint Communications, a relatively small company

14   that, until that time, had only 330,000 access lines. The transaction added

15   approximately 1.6 million phone lines to FairPoint's existing properties. As a result

16   of financial and systems conversions problems associated with the Verizon

17   transaction, FairPoint announced a restructuring[4] plan on September 28, 2009, and

18   subsequently filed for Chapter 11 protection.[5]

19   Many serious problems have plagued FairPoint's New England subscribers

20   since the acquisition. According to the Maine PUC, the ongoing FairPoint service

21   issues produced "the highest level of calls involving a single utility the consumer

---

[3] Hawaiian Telecom Communications, Inc., Securities and Exchange Commission Form
8-K filed December 1, 2008.
[4] http://biz.yahoo.com/e/090928/frp8-k.html.
[5] http://news.yahoo.com/s/ap/20091026/ap_on_bi_ge/us_fairpoint_communications_bankruptcy.

1   assistance division has seen."[6] Thousands of serious recurring billing errors, poor

2   customer service, delays in installation and repair, slow and inadequate response to

3   consumer complaints and service issues occurred following the conversion to

4   FairPoint's new OSS from Verizon's legacy systems approximately one year after

5   closing.

6   Wholesale customers experienced major problems as well. As one CLEC

7   noted: Wholesale customers have experienced numerous problems, including the

8   following: (1) difficulties in creating orders; (2) inconsistencies in processing orders;

9   (3) failures of many pre-ordering transactions, such as requests for customer service

10   records and loop qualifications; (4) unreliable and inaccurate notification messages

11   about order status; (5) problems with format and consistent content of Daily Usage

12   Feed files; (6) low response times after notification of transaction problems; (7) poor

13   customer service; (8) billing errors.[7]

14   As recent as August 5, 2009, FairPoint admitted that "a number of the key

15   back-office systems, such as order entry, order management and billing, experienced

16   certain functionality issues."[8] The problems were so pervasive that on September 16,

17   2009,

18   Public Service representatives, state utility commissioners and lawmakers

19   from Maine, New Hampshire and Vermont convened an unusual joint hearing with

20   FairPoint executives demanding answers for the multitude of issues following

21   FairPoint's acquisition and subsequent conversion of their OSS.

---

[6] Tux Turkel, "FairPoint Besieged by Complaints," *Kennebec journal Morning Sentinel,* March 22, 2009.
[7] *Petition to Deny of TW Telecom Inc., One Communications Corp., Integra Telecom, Inc., and CBeyond, Inc.*,
FCC WC Docket No. 09-95 (filed September 21, 2009).
[8] FairPoint Communications, Inc., Quarterly Report for the Period ending June 30, 2009 (Form 10-Q), at 40
(filed August 5, 2009).

1

2

3   **Q.**   **Please explain in general the Joint Applicants' plan for migrating information**

4   **from Verizon systems to systems that will be owned by Frontier.**

5   A.   From the information provided through discovery, it is apparent that Verizon and

6   Frontier are planning a two step cut-over. The OSS transition consists of one cut-

7   over prior to closing and another sometime in the future. Verizon and Frontier have

8   provided only very general information and are apparently still in the process of

9   developing detailed step-by-step cut-over plans.

10   1.   The first cut-over, and the one that must be completed before close, is

11   Verizon Spinco's replication of its existing systems, and the company's migration of

12   all data files and transaction logs onto the newly replicated systems. (Spinco is the

13   entity within Verizon, of which Verizon Northwest is a part, which will be

14   transferred and merged into Frontier at the close of the transaction.) Verizon

15   indicates that all systems will be available at Verizon Spinco's Fort Wayne, Indiana,

16   data center in April 2010.

17   2.   The second cut-over, which according to Frontier will not occur until

18   at least one year following close, is the migration by Frontier from Verizon legacy

19   systems onto the Frontier's existing systems.

20   Both are areas of concern to staff.

21

1   **Q.   What are some of the risks that the Frontier admits?**

2   A.   Frontier admits that, among other things: "The acquisition of the Spinco business is

3   the largest and most significant acquisition Frontier has undertaken. Frontier

4   management will be required to devote a significant amount of time and attention to

5   the process of integrating the operations … which may decrease the time they will

6   have to serve existing customers, attract new customers and develop new services or

7   strategies."[9] The company also states that "the size and complexity of the of the

8   Spinco business and the process of using Frontier's existing common support

9   functions and systems to manage the Spinco business after merger, if not managed

10   successfully by Frontier management, may result in interruptions of the business

11   activities of the combined company that could have a material adverse effect on the

12   combined company's business, financial condition and results of operation."[10]

13   During the critical timeframe that the OSS replication and testing is taking

14   place: "Frontier management will be required to devote a significant amount of time

15   and attention before completion of the merger to the process of migrating the

16   systems and processes supporting the operations of the Spinco business in West

17   Virginia from systems owned and operated by Verizon to those owned by Frontier.

18   The size, complexity and timing of this migration, if not managed successfully by

19   Frontier management, may result in interruptions of Frontier's business activities."[11]

20   Indeed, no company Frontier's size has taken on a deal as complex and large

21   as this one – approximately 4.8 million access lines across 14 states. The largest deal

22   that Frontier has completed was the acquisition of Rochester Telephone, where

---

[9] Frontier Communications SEC Form S-4 Registration Statement, p. 25 (filed July 24, 2009).
[10] Id.
[11] Id.

1   Frontier obtained close to 800,000 lines. It took almost 7 years to convert from

2   Rochester Telephone's OSS to a common Frontier system. The largest deal

3   attempted from a Verizon divestiture was the now infamous FairPoint transaction in

4   New England of about 1.6 million lines in only three states.

5   Frontier is proposing to acquire 4.8 million lines from Verizon in 14 states

6   tripling Frontier's size. The network that Frontier is purchasing connects █████

7   switches and nearly █████ central offices using approximately █████ copper miles,

8   █████ fiber miles and █████ fiber-to-the-premise miles of cable. All of which have

9   to be accurately represented and stored in numerous OSSs.

10   According to information obtained during discovery, at the same time

11   Verizon is working on the OSS replication, and the conversion of the West Virginia

12   OSS, it will also be doing an incredible amount of network re-arrangements in the

13   other 13 states, including:

14   ● [REDACTED]
15
16
17
18
19
20
21
22   ● [REDACTED]
23
24
25
26   ● [REDACTED]
27
28
29
30   ● [REDACTED]
31

1	**V.**	**FIRST CUT-OVER: FRONTIER/VERIZON OSS REPLICATION**
2		**PROCESS**
3		
4		

5 **Q.** **What has Staff been able to learn about Frontier's and Verizon's Plan for**

6 **Operations Support Systems Realignment prior to close?**

7 A. As Frontier witness Mr. McCallion explains in his direct testimony beginning on

8 page 14, Verizon Northwest has continued to use the centralized computer systems

9 that Verizon obtained from GTE and has modified and improved them since closing

10 that transaction in 2000. These systems are the basis of the Verizon OSSs involved in

11 this transaction, and are used to run essential aspects of the business, such as retail

12 ordering and billing, CLEC ordering and billing, network monitoring and

13 maintenance, and all customer support functions. Verizon chose to keep the GTE

14 systems rather than merge them into the other non-GTE Verizon legacy OSSs.

15 Verizon's Spinco will utilize the existing centralized legacy GTE systems

16 that have been used by Verizon to operate the former GTE assets that Verizon is

17 transferring to Frontier.

18 According to Frontier witness Mr. McCarthy, prior to closing, Verizon will

19 replicate and physically separate these systems from the systems it will continue to

20 use for its operations after close. The separate, centralized, systems will be dedicated

21 to the operations being acquired by Frontier.

22 Essentially, Frontier will use copies of those existing systems that Verizon

23 uses today to support customers in the State of Washington (as well as 12 of the

24 other states included in the transaction, excluding West Virginia). Frontier will pay

1   Verizon an annual fee of $94 million dollars for system support for at least one year,

2   but as long as five years after close. It has not been explained which of Verizon's █

3   third party vendor "system modules" will be retained by Frontier or what the annual

4   fees and contracts may entail to retain those systems, however it would appear that

5   the annual cost for the use of existing Verizon systems will be something greater

6   than $94 million.

7   According to Verizon, the maintenance services are a negotiated commercial

8   arrangement whereby Frontier has the flexibility after the first year of a five-year

9   agreement to purchase full, partial or no maintenance services that include:

10   • Services provided: New releases, updates to source code, patches, and bug
11   fixes
12   • Optional services: Systems training, changes requested by Frontier.
13
14   Frontier states that it has not developed a plan or timeline for completing the

15   conversion of Verizon systems to Frontier systems and no conversion will occur in

16   the first year.

17

18 **Q.   How will the replication process work?**

19 A.   The replication process will create totally separate OSS software copies hosted on

20   new hardware. Verizon will install additional hardware at the existing Verizon Fort

21   Wayne, Indiana, Data Center (which will become a Frontier Data Center at close).

22   According to materials obtained through discovery, hardware installation and

23   systems configuration will be ongoing through the end of 2009. System end-to-end

24   and operational readiness testing will be completed in the January-February 2010

1   time frame. Data migration (a complete copy of all data incorporated in the OSS,

2   e.g., billing records, outside plant, and central office translations for all the states

3   involved in the transaction except for West Virginia) will be completed by March 31,

4   2010. On April 1, 2010, Verizon states that it will use and operate the replicated

5   systems to serve retail and wholesale customers for 60 days prior to close. According

6   to Verizon, during that period the replicated systems will be used for the following

7   functions using Verizon employees that are expected to continue employment with

8   Frontier:

9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

- Ordering: After April 1, 2010, new customer orders will be taken by Verizon representatives that are expected to continue employment with Frontier and the orders will be placed in the replicated Spinco ordering systems.
- Provisioning: After April 1, 2010, new customer orders will be provisioned from the replicated Spinco provisioning systems. Verizon's technicians that are expected to continue employment with Frontier will provision the service.
- Customer Care: After April 1, 2010, calls to retail care centers will be fielded by a Verizon representative that is expected to continue employment with Frontier. The representative will pull up the customer's account on the replicated systems, use the replicated system to answer the customer's questions, and make any service changes using the replicated system.
- Repair: After April 1, 2010, service outages will be taken by Verizon representatives that are expected to continue with Frontier, who will enter repair tickets that are tracked and dispatched from replicated ticketing and dispatch systems to repair technicians who are expected to transfer with the transaction.
- Billing: After April 1, 2010, customers will receive bills generated from the replicated billing systems. Bill inquiries will be handled by Verizon representatives that are expected to continue with Frontier, and be processed in the replicated systems.

1   **Q.**   **How will Frontier verify that the newly replicated systems are functioning**

2   **correctly?**

3   A.   Verizon indicates that it will test the replicated systems prior to April 1, 2010, and

4   share those tests with Frontier. Frontier will then test the systems using its own

5   procedures for the next 60 days during the same time period that Verizon is actually

6   using and operating the systems to serve retail and wholesale customers. In response

7   to data requests, Frontier explains that it will make a determination prior to closing

8   that all systems are functioning correctly.

9   No test plan exists today but Frontier has stated that its test plan for

10   confirmation and validation will be separated into two sections. The first section will

11   focus on those customer/carrier facing systems that allow service to be provisioned

12   and have been replicated and are in production prior to close. That set of tests will

13   be primarily exception testing and testing for any activity that is not being processed

14   properly. The second set of testing will cover the smaller number of downstream

15   systems (e.g., payroll, accounts payable) that will be put into production at close and

16   will involve various standard tests for functionality, including testing end-to-end

17   process flows.

18   The latest information obtained from Verizon is that CLECs will have an

19   opportunity to test replicated systems prior to April 2010.

20   It is important to note that Verizon Spinco will be using the replicated

21   systems for its everyday business, utilizing personnel that will become Frontier

22   employees at close, for at least 60 days. It is also important to note that Frontier can,

23   and should, refuse to close the transaction if Verizon fails to achieve its obligation to

1   provide "functionality substantially similar to, but no less favorable to the Spinco

2   Business than, that which the Spinco Business received from Verizon and its

3   Affiliates."[12]

4

5 **Q.   How does the replication plan compare to the cut-overs in Hawaii and New**

6   **England?**

7 A.   In both Hawaii and New England the purchasers developed new OSS from scratch

8   and then cut those systems into service. In both cases the systems were cut-over

9   lacking sufficient functionality. In this case, Verizon itself is providing Frontier with

10   exact copies of systems that Verizon has been using for operational support for many

11   years. The complexity lies in the replication of the software onto newly installed

12   hardware and the downloading of all customer data into the new systems. Done

13   correctly, the operation support systems will essentially be the same as before cut-

14   over. The use of replicated systems should prove to be less risky than a cut-over to

15   new untried systems as in Hawaii and the New England States. In this case, Verizon

16   will actually use the newly replicated systems for daily business for a minimum of

17   60 days before the transaction closes, giving Frontier time to complete its systems

18   testing.

19   Even so, this is a complex transition and the companies should be held to

20   rigid standards and reporting requirements, as set forth later in my testimony, to

21   prevent the kinds of problems seen in Hawaii and New England (e.g., billing errors,

22   missed installation appointments, missed repair appointments, lost records, long

---

[12] Merger Agreement at 7.24(c).

1   answer and hold time for order and repair centers, as well as the inability of

2   wholesale customers to accurately access needed ordering software).

3

4   **Q.   What would you propose to mitigate risks associated with the replication of**

5   **Verizon's OSS?**

6   A.   If the Commission decides to approve the transaction, Staff would recommend a

7   number of conditions to mitigate the risks associated with the cut-over to the Verizon

8   replicated systems:

9   a.   Verizon/Spinco should use the replicated OSSs for all customer
10   transactions, retail and wholesale, for a period not less than *ninety*
11   *days,* thirty days longer than specified in the companies' agreement.
12   This will allow for at least one complete billing cycle and for three
13   months of service quality reports to be gathered and evaluated.
14   b.   Within ninety days following the completion of the replication
15   process, but prior to closing, Frontier must complete system testing
16   and validate that the OSS are operational in accordance with the terms
17   of the merger agreement and notify the Commission in writing of
18   such validation.
19   c.   For ninety days before close, following completion of the replication
20   process, Verizon Spinco must meet the retail service quality standards
21   as set forth in Staff witness Kristen Russell's testimony on pages 25
22   and 28. Wholesale quality of service should not show substantial
23   degradation under the JPSA reporting structure referred to in Staff
24   witness Rick Applegate's testimony.
25   d.   Due to the complexity and movement of large amounts of customer
26   records and network data, Verizon should create an archive of all data
27   transferred to the replicated systems. The archived record must
28   contain all network, repair, and customer billing and payment records
29   for the twelve months prior to the transfer of customers to Frontier.
30   The archive should be maintained by a third party at Verizon's
31   expense for a period of 12 months following closing of the merger.
32   Both Frontier and Verizon should have access to the archived records
33   when needed to repair missing or corrupted records, if any.
34   e.   Frontier should be required, for a period of four years following
35   closing, to submit quarterly reports on the integration of business and
36   repair office operations and billing systems to the Commission. The
37   reports would continue through the second cut-over (described in the

1 next section of my testimony) if that conversion happens within four
2 years following close.
3 f. Frontier should be required, for a period of four years following
4 closing, to submit quarterly reports on any consolidation of network
5 operations and staffing levels associated with network operations in
6 Washington. The reports would continue through the second cut-over
7 if that conversion happens within four years following close.

8
9
10
11
12 **VI. SECOND CUT-OVER: CONVERSION OF THE REPLICATED**
13 **VERIZON SYSTEMS TO FRONTIER LEGACY SYSTEMS POST**
14 **CLOSE**
15

16

17 **Q. Does Frontier have a plan to convert systems again after close?**

18 A. During discovery Frontier stated it has not developed a plan or timeline for

19 completing the conversion from Verizon systems to its own systems. It also stated

20 that no OSS conversion will occur in the first year following closing. Given the $94

21 million Verizon system maintenance fee, however, Frontier will be under some

22 financial pressure to begin converting at least some of its systems to achieve part of

23 its expected $500 million in synergies. Verizon and Frontier state that "Frontier will

24 initially use separate instances of Verizon's OSS in 13 of the 14 states involved" and

25 that "over time Frontier expects to migrate customers from those systems onto a

26 single integrated platform."[13] Thus, Frontier postpones OSS integration issues until

27 sometime after closing, yet provides no details of its integration methods. The failure

28 to provide any specific integration method, timeline or information on staffing of the

29 transition, fails to provide confidence in Frontier's ability to complete a trouble free

30 OSS conversion in the future.

---
[13] Application, pp. 4, 21.

1 **Q.** **How would that compare to the OSS conversions in Hawaii and New England?**

2 A. Staff is very concerned about the second conversion. It is disconcerting that Frontier

3 has no plan or apparently any idea what the costs would be to convert to its legacy

4 systems, and there is no guarantee that Verizon will maintain support for the OSS

5 after five years. If the Frontier's decision is to convert the legacy Verizon systems to

6 Frontier's legacy systems as stated earlier, then the process will in some ways be

7 similar to the Hawaii and New England conversions, but with the difference being

8 that Frontier is already using its legacy systems and it will not have to create new

9 systems from scratch. Even though Frontier is obviously already familiar with its

10 own systems, it will most likely have to rely on its OSS vendor Verizon, at some

11 additional cost, to accurately port customer and network data to its legacy systems.

12 Some danger exists in the capacity of those existing systems to absorb three times as

13 much data as the company stores today, in the incredibly complex movement of

14 large amounts of data, and in the need to train former Verizon employees on the use

15 and maintenance of the legacy Frontier systems.

16 Because the second conversion is such a critical step and the outcome is in

17 some doubt, reasonable steps should be taken to mitigate that uncertainty and apply

18 some assurance to the process.

19

1 **Q.** **What types of mitigation would you propose in addition to those above?**

2 A.   As I said earlier, systems integration is a complex process, subject to errors that

3   include billing errors, missed installation appointments, missed repair appointments,

4   lost records, as well as the inability of wholesale customers to accurately access

5   needed ordering software and subsequent damage to their ability to provide

6   competitive services to their customers. Failed system integration can also lead to

7   poor answering times at business and repair office facilities (a secondary problem as

8   a result of actual bad service). As seen in Hawaii and New England, these failures

9   can lead to catastrophic business failure as well.

10   If the Commission approves this transaction, the Commission should require

11   Frontier to comply with these additional conditions to protect against the types of

12   failures that may be associated with the second cut-over:

13   a.   If the transition to Frontier operation support systems begins within
14   three years following close, Frontier must engage a third-party to
15   audit the operations support systems used to provide wholesale and
16   retail service. The third-party will issue reports on the status for all
17   systems that impact customer retail and wholesale service. The third-
18   party will also assess whether the operations support systems are
19   capable of a seamless and transparent transfer of customer and related
20   records, as well as network, maintenance and engineering records.
21   The third-party will also assess the impact of the transfer on call
22   center staffing.
23   b.   At least 60 days prior to the scheduled cut-over date of any operations
24   support system, Frontier must provide notice to CLECs of any
25   changes, detailing the specific functionality and providing any
26   necessary information to enable e-bonding (e-bonding is a software
27   interface that enables a CLEC's internal systems to generate service
28   orders, order status checks, trouble reporting, and inventory
29   management transactions, which are then automatically entered
30   directly into Verizon's proprietary system). Frontier will subsequently
31   hold collaborative meetings with CLECs to discuss such changes and
32   address CLEC issues or concerns.

1   c. Post transaction, Frontier Northwest must maintain OSS functionality,
2   performance and e-bonding in the legacy Verizon service territory
3   that is at least equal to that which Verizon provides in the territory
4   pre-transaction.
5
6

7 **Q.** **Does that conclude your testimony?**

8 A. Yes.

9
10