

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the	)	DOCKET NO. UT-003013
	)	
	)	THIRTY-SECOND SUPPLEMENTAL
	)	ORDER; PART B ORDER; LINE
Continued Costing and Pricing of	)	SPLITTING, LINE SHARING OVER
Unbundled Network Elements,	)	FIBER LOOPS; OSS; LOOP
Transport, and Termination	)	CONDITIONING; RECIPROCAL
	)	COMPENSATION; AND
	)	NONRECURRING AND RECURRING
	)	RATES FOR UNES
	)	
.....	)	

I. SYNOPSIS

1 *In this Order, the Commission resolves issues relating to the nonrecurring and recurring costing and pricing of numerous unbundled network elements for Qwest and Verizon. The Commission also addresses several issues relating to reciprocal compensation for the inter-carrier exchange of telecommunications traffic; issues relating to the provisioning of digital subscriber line service – line splitting, line sharing on digital line carrier facilities, and supplemental operations support systems cost recover; and loop conditioning.*

II. PROCEDURAL SUMMARY

2 This proceeding was opened on February 17, 2000, to address issues arising out of Docket Nos. UT-960369, 960370, and 960371 (“UT-960369”) (also referred to as the “Generic Costing and Pricing Proceeding”).<sup>1</sup> On March 16, 2000, the Commission<sup>2</sup> established a two-part schedule. Several other parts to this proceeding were subsequently established. The Commission’s Thirteenth Supplemental Order in Part

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<sup>1</sup> See *In the Matter of the Pricing Proceeding For Interconnection, Unbundled Elements, Transport and Termination, and Resale*, Docket Nos. UT-960369 (general), UT-960370 (US WEST), and UT-960371(GTE), Order Instituting Investigations (November 20, 1996). Qwest was formerly known as US WEST. Verizon was formerly known as GTE.

A was entered on January 31, 2001, addressing line sharing, operations support systems (“OSS”), collocation, and certain nonrecurring charges.

3 The issues addressed in this Part B Order are digital subscriber line provisioning, including line splitting and line sharing over fiber-fed loops, updated operational support systems cost recovery, loop conditioning, reciprocal compensation, including tandem rates and interconnection cost sharing, and the nonrecurring and recurring costs and rates of numerous unbundled elements.

4 Part B evidentiary hearings began on, March 26, 2001, and concluded on April 20, 2001. Parties filed opening and reply briefs on May 29 and June 19, 2001, respectively. Part C proceedings have been completed. Part D hearings were recently completed, and the parties are preparing post-hearing briefs. The Commission has initiated a Part E Proceeding, but no hearing date has been set.

5 **Parties:** The following participated in the Part B hearings: Qwest Corporation (“Qwest”), by Lisa Anderl, Seattle; Verizon Northwest Inc. (“Verizon”), by Jennifer McClellan, W. Jeffrey Edwards, and Meredith Miles, Richmond, Virginia; WorldCom, Inc. (“WorldCom”), by Ann E. Hopfenbeck, Denver, CO, and Brooks Harlow, Seattle, WA; Covad Communications Company (“Covad”) by Brooks Harlow, and Megan Doberneck, Denver, CO; Telecommunications Ratepayers for Cost-based and Equitable Rates (“TRACER”), and Rhythms Links, Inc., by Arthur A. Butler, Seattle; XO Washington, Inc., Electric Lightwave, Inc., AT&T Communications of the Pacific Northwest, Inc., and Focal Communications Corporation (collectively, “Joint CLECs”), by Gregory J. Kopta and Mary Steele, Seattle; and Commission Staff, by Mary Tennyson and Gregory Trautman, Assistant Attorney Generals, Olympia.

### III. MEMORANDUM

#### A. PROCEDURAL BACKGROUND

6 In November 1996, the Commission issued an Order Instituting Investigation and Consolidation in Docket Nos. UT-960369, 960370, and 960371, also referred to as

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<sup>2</sup> In this Order, the Washington Utilities and Transportation Commission is referred to as the “Commission.” The Federal Communications Commission is referred to as the FCC.

the Generic Costing and Pricing Proceeding. The Commission initiated that proceeding to consider cost and pricing issues that arose during the arbitration process and out of the Commission's obligations under the Telecommunications Act of 1996 ("Telecom Act" or "Act") to establish rates for unbundled network elements ("UNEs"), interconnection, transport and termination, and wholesale services.<sup>3</sup>

7 These cost and pricing issues also arise from the Commission's obligations in Title 80 RCW to regulate telecommunications companies in the public interest, and to establish rates and charges for telecommunications services. This case is a necessary and anticipated continuation of the Generic Costing and Pricing Proceeding. The prices established in the Generic Costing and Pricing Proceeding and this case are intended for use in pending and future arbitrations, and in tariffs required pursuant to Commission orders in the consolidated interconnection and Qwest rate case proceedings.<sup>4</sup>

8 In the earlier Generic Proceeding, the Commission adopted the total element long run incremental cost ("TELRIC") methodology for setting UNE prices. The Commission also noted that all of the parties in the case advocated the use of the TELRIC methodology as the appropriate costing analysis, and thus adopted use of TELRIC for these proceedings.<sup>5</sup> The Commission stated that the TELRIC methodology: (1) assumes the use of best available technology within the limits of existing network facilities; (2) makes realistic assumptions about capacity utilization rates, spare capacity, field conditions, and fill factors; (3) employs a forward-looking, risk-adjusted cost of capital; (4) uses economic depreciation rates for capital recovery; and (5) properly attributes indirect expenses to network elements on a cost-causative basis.

9 Docket No. UT-960369 involved three phases. In Phase I of that proceeding, the Commission established a cost methodology and determined the direct cost of many

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<sup>3</sup> Pub. L. No. 104-104, 110 Stat. 56 (1996), codified at 47 U.S.C. §§ 151 *et seq.* (1996), 47 U.S.C. § 252(d).

<sup>4</sup> Order Instituting Investigations; Order of Consolidation; and Notice of Prehearing Conference, Docket Nos. UT-960369, et al. (November 21, 1996) at page 3.

<sup>5</sup> *In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale*, Docket No. UT-960369 et al., Eighth Supplemental Order (May 11, 1998) ("Eighth Supplemental Order"), at para. 9.

unbundled network elements, as well as the wholesale discount for the resale of retail services for providing certain telecommunications services.<sup>6</sup>

10 In Phase II, the Commission determined the mark-up that should be applied to the direct cost of unbundled network elements.<sup>7</sup> The mark-up was added to the direct cost in order to include a contribution to the common costs incurred by incumbent local exchange carriers in the price of unbundled network elements. In addition, the Phase II proceeding addressed the recovery of operations support system (“OSS”) transition costs, nonrecurring charges, collocation, and various other matters related to the costing and pricing of interconnection and unbundled network elements. In Phase III, the Commission addressed the deaveraging of unbundled loop prices. In Part A of this proceeding, the Commission resolved issues relating to costing and pricing for three aspects of the way competitive carriers interconnect with incumbent carriers: the high frequency portion of the local loop as a new unbundled network element (line sharing); unbundled access to incumbent local exchange carriers’ operations support systems; and collocation of competitors’ facilities in or near incumbents’ facilities.

## **B. TELECOMMUNICATIONS ACT OF 1996**

11 The purpose of the Act is to “provide for a pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening all telecommunications markets to competition . . . .” *H.R. Conf. Rep. No. 104-458, 104th Cong., 2d Sess. 13 (1996)*. Congress envisioned that the Act’s pro-competitive policies would be accomplished, in large part, by requiring incumbent local exchange companies (“ILECs”), such as Qwest and Verizon, to open their networks to competitive local exchange companies (“CLECs”).

12 A fundamental requirement of the 1996 Act imposes on the ILECs the obligation to provide their competitors with access to unbundled network elements.<sup>8</sup> This phase of the proceedings arises out of the FCC’s UNE Remand Order, Third Report and Order,

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<sup>6</sup> Eighth Supplemental Order.

<sup>7</sup> *In the Matter of the Pricing Proceeding for Interconnection, Unbundled Elements, Transport and Termination, and Resale*, Docket No. UT-960369 et al., Seventeenth Supplemental Order (August 30, 1999) (“Seventeenth Supplemental Order”).

<sup>8</sup> Thirteenth Supplemental Order, Docket No. UT-003013, at para. 86.

*In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98. FCC 99-238 (1999).<sup>9</sup> As noted by the FCC in its press release announcing the release of that order:

This FCC decision removes a major uncertainty surrounding the unbundling obligations of the Telecommunications Act of 1996 and is expected to accelerate the development of competitive choices in local services for consumers. Unbundling allows competitors to lease portions of the incumbent's network to provide telecommunications services.

Today's order adopts a standard for determining whether incumbents must unbundle a network element. Applying the revised standard, the Commission reaffirmed that incumbents must provide unbundled access to six of the original seven network elements that it required to be unbundled in the original order in 1996:

- (1) loops, including loops used to provide high-capacity and advanced telecommunications services;
- (2) network interface devices;
- (3) local circuit switching (except for larger customers in major urban markets);
- (4) dedicated and shared transport;
- (5) signaling and call-related databases; and,
- (6) operations support systems.

FCC Report No. CC 99-41, September 15, 1999.

### **C. ADMISSION OF BENCH REQUEST RESPONSES AND RECORDS REQUISITIONS**

13 All responses to bench requests are admitted into the record. Additionally, we grant Commission Staff's motion that Records Requisition No. 105 be admitted. A revised exhibit list will be prepared and separately distributed to the parties.

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<sup>9</sup> Parties have not yet had an opportunity to make legal arguments regarding the impact of recent FCC and court decisions on the issues presented in this proceeding. These arguments may be presented in petitions for reconsideration.

**D. ISSUES BEFORE THE COMMISSION****1. DIGITAL SUBSCRIBER LINE (“DSL”)<sup>10</sup> ISSUES****a. Line Splitting*****Background***

14 The distinction between line sharing and line splitting, as defined in this proceeding, turns on the type of carrier that provides voice service in association with a CLEC that provides data service over the same loop. *Line sharing* describes the situation where an ILEC provides voice service utilizing the low frequency portion of the loop and a CLEC provides data service over the high frequency portion of the loop. *Line splitting* describes the situation where one CLEC provides the underlying voice service and another CLEC provides data service. Both Qwest and Verizon agree to provide line splitting over UNE-P loops.

15 There are three issues regarding line splitting that the Commission must address.

- First, the Joint CLECs request that the Commission ensure that customers who are receiving DSL service from an ILEC do not lose that service if the customer chooses to obtain voice services from a CLEC.
- Second, the Joint CLECs have asked the Commission to require Qwest and Verizon to provide splitters for line splitting.
- Third, the Commission must determine permanent line splitting costs, and if necessary, to define the technical procedures used to provide line splitting.

***i. ILEC DSL Service to Customers Who Switch Voice Services to a CLEC***

16 The FCC’s Line Sharing Reconsideration Order<sup>11</sup> states that ILECs must permit line splitting on all capable loops. However, the FCC denied AT&T’s request also to require ILECs to provide DSL to customers who switch voice providers.

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<sup>10</sup> There are numerous technical versions of digital subscriber line service. Although those versions are sometimes collectively referred to as “xDSL,” we simply use the term “DSL” in this Order.

Although the Line Sharing Order obligates incumbent LECs to make the high frequency portion of the loop separately available to competing carriers on loops where incumbent LECs provide voice service, it does not require that they provide xDSL service when they are not longer the voice provider. We do not, however, consider in this Order whether, as AT&T alleges, this situation is a violation of sections 201 and/or 202 of the Act. To the extent that AT&T believes that specific incumbent behavior constrains competition in a manner inconsistent with the Commission's line sharing rules and/or the Act itself, we encourage AT&T to pursue enforcement action." *Line Sharing Reconsideration Order, at para. 26.*

17 The Joint CLECs acknowledge that the FCC's Line Sharing Reconsideration Order does not require ILECs to continue providing DSL service in the event that the ILEC ceases to provide the underlying voice service. They argue, however, that the FCC order also does not prohibit the Commission from enacting such a requirement with respect to Qwest or Verizon.<sup>12</sup> The Joint CLECs maintain that the FCC has determined that an incumbent carrier's refusal to provide service under such circumstances could be a violation of Section 201 or 202 of the Telecom Act. The Joint CLECs also claim that there simply is no readily available alternative to Qwest and Verizon for most consumers who desire DSL service.<sup>13</sup>

18 Staff notes that there are potential legal and jurisdictional problems if the Commission mandates that ILECs must continue to provision DSL, because DSL service is interstate in nature. Staff also believes that the Commission's disconnection of service rules do not apply to an ILEC providing DSL service. Staff witness Roth testified that it would be bad public policy to require the ILECs to continue to provide DSL service to a customer who switches voice providers;

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<sup>11</sup> *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Third Report and Order on Reconsideration, CC Docket No. 98-147, and *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Fourth Report and Order on Reconsideration, CC Docket No. 96-98 (released January 19, 2001) ("Line Sharing Reconsideration Order").

<sup>12</sup> At the outset of this proceeding, Verizon was complying with a GTE/Bell Atlantic merger requirement that the merged entity provide DSL services through a separate subsidiary – Verizon Advanced Data, Inc. ("VADI"). Verizon has since been relieved of that requirement, and Verizon has announced plan to integrate operations. In this Order, we refer to Verizon as the entity providing DSL service.

<sup>13</sup> Joint CLEC Reply Brief, at para. 20.

however, her testimony is based on the premise that customers have viable alternatives in the data service market.<sup>14</sup>

- 19 As an accommodation to CLECs and a demonstration of good faith in the Commission's 271/SGAT process, Qwest has agreed to continue providing DSL service to customers that switch to CLEC voice providers. However, Qwest continues to assert that it is not legally required to do so. As a practical matter, the Commission need not make further findings regarding Qwest. However, we must address the policy and legal issues raised by the parties if we choose to impose a similar requirement on Verizon.
- 20 Verizon notes that the FCC has already rejected the Joint CLECs request in the Line Sharing Reconsideration Order. Verizon also points out that some CLECs are capable of providing both voice and data service, but are not mandated to continue providing service even though they have the same incentive to bundle services in order to retain customers. Verizon describes numerous other practical problems that would arise – for which there are no proposed solutions – if the Commission were to require ILECs to provide DSL service. Verizon argues, furthermore, there is no evidence in the record that it has or would refuse to provide DSL services to any end users, let alone those purchasing voice services from CLECs
- 21 The Commission places a high priority on facilitating competition among carriers and facilitating access to broadband services. The record in this part of the proceeding is unclear as to whether the majority of consumers have real alternatives among carriers for voice or data services. We commend Qwest for its initiative in this matter, but we hesitate to decide, under present circumstances, whether this would be a good policy or a bad policy.
- 22 There is no bona fide case or controversy presently before us. Furthermore, the myriad collateral issues raised by Verizon appear to represent valid concerns that cannot be resolved based on the record at this time. As a practical matter, development of terms and conditions necessary to implement line splitting (including the provisioning of DSL service by an ILEC in conjunction with voice services provided by a CLEC) should proceed in the Washington Line Splitting Collaborative

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<sup>14</sup> Staff Brief, at page 44. Staff appears to argue that the ILECs should not be forced to provide DSL service because Staff assumes that there are numerous alternative providers. See TR 3911-3912.



discussed below, or in another appropriate proceeding.<sup>15</sup> The Commission will address relevant policy issues in the context of actual cases or controversies.

*ii. Provisioning Splitters in a Line Splitting Arrangement*

- 23 As with line sharing, line splitting requires the use of specialized equipment. A line splitter is a device that separates the voice traffic from the data traffic over the same loop, allowing for simultaneous transmission of both forms of communication. The Joint CLECs contend that the deployment of line splitters in ILEC central offices by the ILEC will remove barriers to entry, promote the competitive provision of advanced services, and minimize customer service disruptions.<sup>16</sup>
- 24 Commission Staff recommends that the ILECs not be required to provide the splitter in a line splitting arrangement, because the FCC's Line Sharing Order does not impose that requirement.<sup>17</sup> Where the ILEC is the owner of the splitter in a line sharing arrangement, the ILEC should continue to provide the splitter for line splitting if it is technically feasible. Staff contends that the ILECs should not be required to purchase and install a splitter solely for use by CLECs to provide voice and data services if the ILECs do not already do this for themselves and their subsidiaries, as is the case with Verizon.<sup>18</sup>
- 25 Verizon notes that the Commission, in the Part A Final Order in this proceeding, declined to require ILECs to purchase splitters on behalf of CLECs in line sharing arrangements.<sup>19</sup> Verizon argues that there is no evidence to justify a different result regarding line splitting. Where a CLEC wishes to convert a Verizon-owned splitter currently used in a line sharing scenario to a line splitting scenario, Verizon agrees to sell the installed splitter to either the voice or data CLEC.<sup>20</sup>
- 26 Qwest argues that splitters are available on the open market to both ILECs and CLECs at comparable prices. Qwest maintains that CLECs' cost of offering DSL

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<sup>15</sup> We note that, in addition to proceedings to resolve disputes pursuant to Section 252(b) of the Act and WAC 480-09-530, the Commission continues to consider the request of several parties in Docket No. UT-011219 to establish a master interconnection agreement for Verizon's provisioning of interconnection and network elements.

<sup>16</sup> Joint CLEC Brief, at para. 143.

<sup>17</sup> Staff Brief, at page 41.

<sup>18</sup> Staff Brief, at page 42.

<sup>19</sup> Verizon Brief, at para. 128.

service has been reduced because they no longer have to purchase separate collocation space for a splitter. Qwest also argues that if it is required to provide splitters, the company would be forced to purchase equipment that it does not already use. Qwest deploys an integrated voice splitter/DSLAM in its provision of a Rate Adaptive Digital Subscriber Line ("RADSL") service, and claims that it would have to purchase stand-alone voice splitters solely to accommodate line-splitting CLECs.<sup>21</sup>

27 The ILECs present convincing arguments on this issue. The FCC's rules do not currently require ILECs to provide splitters for line splitting/sharing, and splitters are available on the open market to both ILECs and CLECs. We also note that no party asked the Commission to reconsider its decision in Phase A that ILECs are not required to provide the splitter in line sharing arrangements. Staff and Verizon persuasively argue that the efficient use of network resources calls for an ILEC to offer to sell the installed splitter if a CLEC wishes to convert a line sharing arrangement to a line splitting arrangement. In that situation, an ILEC must offer to sell the installed splitter; otherwise, ILECs are not required to provide splitters in a line splitting arrangement. Parties should identify in Part E of this proceeding any rates that must be consequently established.

*iii. Line Splitting Costs and Product Definition*

28 Commission Staff believes that that it is necessary for this Commission to set a date certain by which the ILECs must present a product definition and proposed permanent costs and prices for line splitting. Staff maintains that absent a Commission-mandated schedule the ILECs have an incentive to delay this offering for as long as possible. Staff argues that any further delay in defining the line splitting product and addressing relevant OSS issues will unreasonably stall the development of competition in the UNE-P environment.<sup>22</sup>

29 Verizon argues that it has committed to implement line splitting in Washington consistent with the results of the New York Collaborative, and that a separate collaborative would be an inefficient use of the parties' and the Commission's resources.<sup>23</sup> Verizon claims that it has submitted preliminary cost estimates and

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<sup>20</sup> Verizon Reply Brief, at para. 154.

<sup>21</sup> Qwest Brief, at page 56.

<sup>22</sup> Staff Brief, at page 43.

<sup>23</sup> Verizon Brief, at para. 127.

interim rates even though the company has not defined how it will offer line splitting.<sup>24</sup> However, Verizon recommends that costing and pricing decisions be deferred until a clearer picture of line splitting has evolved.<sup>25</sup>

30 Staff agrees with Verizon that the results of the New York collaborative will provide value to this Commission in setting terms and rates for line splitting. Staff argues, however, that since Qwest and other LECs are not involved in that proceeding, a collaborative or similar process should be initiated in Washington.<sup>26</sup>

31 Qwest states that it has not provided a new cost study relating to line splitting because no additional costs have been identified for this service. That is, Qwest claims that all costs associated with line splitting have already been included in other proposed or existing rates.<sup>27</sup> Qwest recommends that the Commission refrain from ordering firm deadlines for the deployment of line splitting, allowing instead for a collaborative process to address both technical issues and a deployment schedule.<sup>28</sup>

32 According to the Joint CLECs it is too early to address cost issues because the conditions for provisioning line splitting have not yet been determined. The Joint CLECs support the initiation of a Washington collaborative.<sup>29</sup>

33 Neither Qwest nor Verizon has submitted sufficient evidence in this proceeding to determine appropriate rates for line splitting. We agree with Staff that the Commission should take an active role in defining line splitting, in order to avoid further delays to the availability of this UNE.

34 The Commission will initiate a proceeding to establish a product definition for line splitting, proposed rates (including OSS), and a deployment schedule within a reasonable time frame.<sup>30</sup> Procedural issues to be discussed at the initial prehearing conference will include the appropriate process for conducting the proceeding.<sup>31</sup> As parties may be aware, the Commission is presently managing an unprecedented

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<sup>24</sup> Exhibit T-1163, at pages 1-4. *See also* Exhibit 1164/C-1164.

<sup>25</sup> Verizon Brief, at para. 136.

<sup>26</sup> Staff Reply Brief, at page 16.

<sup>27</sup> Exhibit T-1092, at page 3.

<sup>28</sup> Qwest Brief, at page 57.

<sup>29</sup> Joint Brief, at para. 149.

<sup>30</sup> As discussed above, the Line Splitting Collaborative may also address terms and conditions necessary to implement line splitting.

regulatory work load. We will establish permanent line splitting rates, in balance with our other duties, as soon as possible.

**b. Line Sharing On Fiber Fed Loops**

***Background***

35 The FCC's rules require ILECs to unbundle the high frequency portion of the local loop, even where the incumbent LEC's voice customer is served by digital line carrier ("DLC") facilities.<sup>32</sup> The FCC clarified its requirements concerning line sharing on fiber fed loops in the Line Sharing Reconsideration Order.

In the absence of this clarification, a competitive LEC might undertake to collocate a DSLAM in an incumbent's central office to provide line-shared xDSL services to customers, only to be told by the incumbent that it was migrating those customers to fiber-fed facilities and the competitor would now have to collocate another DSLAM at a remote terminal in order to continue providing line-shared services to those same customers. If our conclusion in the *Line Sharing Order* that incumbents must provide access to the high frequency portion of the loop at the remote terminal as well as the central office is to have any meaning, then competitive LECs must have the option to access the loop at either location, not the one that the incumbent chooses as a result of network upgrades entirely under its own control. This approach is consistent with the dual goals expressed in the *Line Sharing Order* of allowing incumbents to deploy whatever network architecture they deem to be most efficient, while also requiring them to engage in good faith negotiations regarding their unbundling obligations. . . .

All indications are that fiber deployment by incumbent LECs is increasing, and that collocation by competitive LECs at remote terminals is likely to be costly, time consuming, and often unavailable. We provide this clarification because we find that it would be inconsistent with the intent of the *Line Sharing Order* and the statutory goals behind sections 706 and 251 of the

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<sup>31</sup> The results of the New York collaborative, as suggested, should serve as the starting point.

<sup>32</sup> Although the high frequency portion of the loop element ("H-UNE") is limited by technology (i.e., the H-UNE is only available on a copper loop facility), access to that network element is not limited to the copper loop facility itself. See Line Sharing Reconsideration Order, at para. 10.

1996 Act to permit the increased deployment of fiber-based networks by incumbent LECs to unduly inhibit the competitive provision of xDSL services. This clarification promotes the 1996 Act's goal of rapid deployment of advanced services because it makes clear that competitive LECs have the flexibility to engage in line sharing using DSLAM facilities that they have already deployed in central offices rather than having to duplicate those facilities at remote terminals. In addition, our ruling in the instant Order ensures that in situations where there is no room in the remote terminal for the placement of competitive LEC facilities, competitors nevertheless are able to obtain line sharing from the incumbents. *Line Sharing Reconsideration Order, at para. 11-13 (footnotes omitted).*

36 Thus, CLECs must be allowed to line share using DSLAM facilities that they deploy at either an incumbent's central office or at a remote terminal. Where there is no room in the remote terminal for the placement of CLEC facilities, ILECs must, nevertheless, make line sharing available to CLECs. The FCC recognized that there may be many different ways to provide line sharing on fiber fed loops, and has initiated a proceeding that requests comment on the feasibility of different methods of providing line sharing where an incumbent LEC has deployed fiber in the loop.<sup>33</sup> In this proceeding, there are two issues regarding line sharing on fiber fed loops that the Commission must address: 1) how should CLECs obtain access to customers on fiber-fed loops; and 2) the extent to which ILECs are entitled to recover related OSS transition costs.

*i. CLEC Access to Fiber-Fed Loops*

37 Qwest maintains that it will offer line sharing over DLC loops by enabling CLECs to access DSL loops from remote terminals. Qwest claims that this is the same arrangement used for Qwest's own customers.<sup>34</sup> Covad contends that this network architecture requires CLECs to place DSLAMs and splitters at each fiber distribution interface ("FDI") in a remote terminal. This location is referred to as a "DA Hotel." Covad claims that this would only provide CLECs with the ability to share the distribution portion of the loop but not the feeder portion. Covad argues that this proposal violates the FCC's clear directive that CLECs should not be forced to

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<sup>33</sup> See *Line Sharing Reconsideration Order*, at para. 55-56.

<sup>34</sup> Qwest Brief, at page 57.

collocate DSLAMs at remote terminals because this arrangement is likely to be costly, time consuming, and often unavailable.<sup>35</sup> Qwest denies Covad's claim that this so-called "DA Hotel" arrangement would give Qwest an unfair advantage.

38 Covad requests that the Commission order Qwest to provide remote terminal access to its DLC functionality via what Covad calls "plug-and-play." Plug-and-play refers to a CLECs ability to collocate a line card in the ILEC's remote DSLAM.<sup>36</sup> Covad argues that this proposal will maintain Qwest's network architecture while providing CLECs the functionality of line sharing over hybrid fiber/copper loops without the expense and inefficiency of having to collocate their own DSLAMs at every remote terminal.<sup>37</sup> Qwest argues that the Commission should reject Covad's plug-and-play proposal because it was not presented in testimony and lacks supporting evidence in the record.<sup>38</sup>

39 Verizon claims that plug-and-play is not collocation as defined by the Act. According to Verizon, the Act does not require an ILEC to include CLEC supplied components in the ILEC's own equipment. Verizon claims that the Act only requires ILECs to provide collocation of "equipment" that is necessary for interconnection or access to UNEs. Since line cards do not have a stand-alone function Verizon argues that line cards cannot be considered equipment. Therefore, Verizon argues that plug-and-play is not collocation.<sup>39</sup>

40 Verizon also argues that allowing the "collocation" of line cards is a bad idea because the appropriate technology is not ready and it would make inefficient use of Verizon's equipment.<sup>40</sup> According to Verizon, a remote terminal line card is an integral part of the ILEC voice network, in the same fashion as a switch line card, and

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<sup>35</sup> Post-Hearing Brief of Covad Communications Company ("Covad Brief"), at page 16. Covad notes that Qwest is building space at the FDI based on upfront financial commitments and does not assure that there will be space available in the future. Covad argues that future entrants as well as entrants that do not have the financing or the ability to make commitments now will not be assured of the ability to obtain space later to achieve entry into new geographic areas. *See* Covad Brief, at page 18.

<sup>36</sup> In the "plug-and-play" scenario, a CLEC would provide Qwest or Verizon with an integrated DLC line card that is compatible with the DLC equipment used by the ILEC. This would allow the CLEC to avoid the full getting started costs of the remote packet switching equipment. Rather, the CLEC would only have to pay for a line card and its proportionate share of the getting started costs.

<sup>37</sup> Covad Brief, at page 20.

<sup>38</sup> Qwest Reply Brief, at page 39.

<sup>39</sup> Verizon Reply Brief, at para. 158.

<sup>40</sup> This is because each individual line card in a remote terminal gives access to multiple circuits for both voice and data functions.

therefore, these cards must remain the property of – and under the sole control of – the ILEC.<sup>41</sup>

41 Verizon states that CLECs may currently obtain access to the high-frequency portion of a loop served by fiber-fed DLC by collocating its DSLAM at or near the FDI accessible terminal that connects Verizon's copper distribution plant to Verizon's DLC-supported feeder. To transport its data signal back to the central office the CLEC can then purchase a sub-loop feeder element and use its own or third party facilities.<sup>42</sup> Verizon argues that TELRIC treatment is only appropriate where the CLEC places its DSLAM at the remote terminal.<sup>43</sup> Verizon says that it has initiated workshops in New York to address issues surrounding the provision of DSL services over fiber-fed loops. Verizon argues that if, and when, the company implements a nationwide fiber-fed DLC wholesale product, then it should be priced based on wholesale market rates, not TELRIC, because the product constitutes a service, and not a UNE.<sup>44</sup>

42 We reject Verizon's proposal because the Commission has previously concluded that the high frequency portion of the loop is a UNE, not a retail service. We also disagree with Verizon's claims that this arrangement should be priced at wholesale market rates. The Commission has the obligation under Section 252(d)(1) of the Act to set TELRIC prices for UNEs. We also reject Qwest's DA Hotel proposal because the company's proposal for sharing the cost of the DA Hotel would create a significant barrier to entry.

43 Having rejected the proposals submitted by the incumbent LECs in this proceeding, we conclude, nevertheless, not to adopt Covad's plug-and-play proposal at this time. We note that proceedings before the California Public Utilities Commission and the FCC to determine the technical feasibility of line sharing options and to establish terms and conditions for access to fiber-fed loops have been long underway. The well-developed records in these other proceedings raise concerns over the efficient use of resources in this jurisdiction. We are also mindful that this may be a subject area where greater uniformity among jurisdictions may be beneficial.

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<sup>41</sup> Verizon Brief, at para. 144.

<sup>42</sup> Verizon Brief, at para. 139.

<sup>43</sup> Verizon Brief, at para. 142.

44 In light of the extensive record that has been developed in other proceedings, and considering the high priority that the FCC has assigned to broadband issues, we conclude that our efforts to implement competition in the deployment of advanced telecommunications services using DSL will be better served by waiting for the outcome in one or more of these other proceedings. Our decision should not be read to impart deference to other jurisdictions to any extent, and the Commission will promptly renew our review of the relevant provisioning and pricing issues raised by the parties as soon as we become aware that there is a completed outside record for our consideration. Nor will we wait indefinitely for these other proceedings to conclude. As demonstrated by the Commission's decision to review loop and switching UNE rates and deaveraged zone rate structures, we remain committed to the need to effectively set just and reasonable rates in order for competitive markets to develop.

*ii. Operational Support Systems ("OSS")*

45 The Joint CLECs argue that the Commission should modify its prior decision that ILECs are entitled to recover OSS transition costs from the CLECs. The Joint CLECs also argue that the Commission should clarify that its findings regarding OSS cost recovery in Part A of this proceeding constitute a cap on the amounts that Qwest and Verizon may recover for all OSS development.<sup>45</sup> Qwest and Verizon claim that the FCC and this Commission have already determined that ILECs are entitled to recover costs incurred to modify OSS for use by CLECs.

46 Qwest argues that OSS costs to provide line splitting will have to account for the fact that three parties are involved in the transaction: the voice CLEC, the data CLEC, and the ILEC. The specific OSS work needed to permit line splitting, according to Qwest, will minimally include changes to electronic interfaces and several downstream systems. Qwest has not yet estimated fully its costs for line splitting because the product has yet to be defined.<sup>46</sup> Likewise, Verizon filed estimated costs,

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<sup>44</sup> See Exhibit T-1136, at page 18. Verizon claims that this is a service rather than a UNE because the FCC has yet to determine that this arrangement falls within the definition of an unbundled network element. See also Verizon Brief, at para. 143.

<sup>45</sup> Joint CLEC Brief, at para. 153.

<sup>46</sup> Qwest Brief, at page 60.



even though the company has yet to identify all of its OSS costs to provide line splitting or line sharing because many of the costs have yet to be incurred.<sup>47</sup>

- 47 Commission Staff notes that the Commission determined, in the 13<sup>th</sup> Supplemental Order in this docket, that OSS modifications to enable line sharing are to be recovered through the same \$3.27 charge per local service request (“LSR”) as other OSS transition costs. Staff contends that there is no difference between the engineering and physical costs to provision line splitting as opposed to line sharing, but that there may be a difference in the operation of OSS, depending on the underlying voice provider.
- 48 In UT-960369, the Commission stated that “[h]aving found that ILECs are entitled to recover the cost of OSS from CLECs, it remains for the Commission to determine what those costs may reasonably be assumed to be and what the ILECs may reasonably expect to recover.”<sup>48</sup>
- 49 We affirm that The OSS costs approved in Part A of this docket were expressly for the period 1996-1999, and there is no basis for finding that the OSS transition costs approved in Phase A constitute a recovery cap. Additionally, the list of UNEs may change over time as new regulations are promulgated and reviewed by the judiciary. Consequently, ILECs may incur additional OSS costs that are determined in part by regulatory requirements over which they have no control. The ILECs should not be prohibited from recovering reasonably incurred costs.
- 50 There is also a trade-off between OSS costs and nonrecurring rates. Nonrecurring rates largely are a function of labor costs. However, OSS expenditures enable CLECs to increasingly rely on machine interfaces when accessing the ILECs OSS. This mechanization should lead to a reduction in nonrecurring rates. Unless the ILECs receive compensation for their OSS costs, they will have a reduced incentive to automate their internal processes and this, in turn, could delay the reduction of nonrecurring rates. Both Qwest and Verizon should recover any and all reasonable expenses associated with OSS modifications that are required by the FCC or that result in an increase in overall efficiency.

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<sup>47</sup> Verizon Brief, at para. 147.

<sup>48</sup> 17th Supplemental Order, UT-960369 , at Para. 102.

51 The 26<sup>th</sup> Supplemental Order in this docket notified parties that all issues regarding Qwest's and Verizon's updated OSS Transition Costs are to be addressed in the Part E proceeding. As noted in the 29<sup>th</sup> Supplemental Order, the parties agree that discussions regarding the Part E procedural schedule are continued until after this Part B Final Order is entered. As Qwest and Verizon update their OSS Transition Costs in Part E – including modifications to implement line sharing and line splitting – they must also file updated nonrecurring cost studies supported by time and motion studies that reflect decreased work times that have been achieved through their increasingly mechanized processes.

## 2. LOOP CONDITIONING – NONRECURRING COSTS

### *Background*

52 The FCC's Line Sharing Order<sup>49</sup> states that incumbent LECs are required to condition loops to enable requesting carriers to offer advanced services wherever a competitor requests service. A conditioned loop describes a copper loop (usually 18,000 feet or longer) from which bridge taps, low-pass filters, range extenders, and similar devices that carriers use to improve voice transmission capability have been removed in order to allow access to all of the loop's native "features, functions, and capabilities."

In the Local Competition Third Report and Order we clarified that incumbent LECs are required to condition loops to enable requesting carriers to offer advanced services, wherever a competitor requests, even if the incumbent LEC itself is not offering xDSL services to the customer on that loop. . . . We found that because competitors cannot access all of the loop's native "features, functions, and capabilities" unless it has been stripped of all accreted devices, loop conditioning falls within the definition of the loop network element. Moreover, we concluded that although loops of 18,000 feet or shorter normally should not require voice-transmission enhancing devices, these devices are sometimes present on such loops and the incumbent LEC

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<sup>49</sup> See *In re Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, and *In re Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in Docket No. 96-98, 14 F.C.C.R. 20912 (1999) ("Line Sharing Order").

should be able to charge for conditioning such loops. *Fourth Local Competition Order, at Para. 82.*

53 In the 8<sup>th</sup> Supplemental Order in UT-960369, the Commission found that although load coils are not forward-looking technology (and, therefore, should be removed from a loop model to estimate forward-looking recurring costs), there will be occasions where a CLEC will request that load coils or a bridge tap be removed from existing facilities.<sup>50</sup> The Commission concluded that where load coils or bridge taps are removed at the request of a CLEC, the CLEC is the cost-causer and should pay the ILEC for the specific costs that are incurred.

54 In the 17<sup>th</sup> Supplemental Order in UT-960369, the Commission approved nonrecurring rates for Qwest's loop conditioning, and concluded that a requesting CLEC must pay for all costs incurred regardless of the number of loops that the CLEC orders.<sup>51</sup> Verizon (then GTE NW) did not file an adequate cost study early enough in that proceeding to be considered by the Commission. Consequently, the Commission approved Qwest's rate for use by Verizon on an interim basis, and deferred consideration of Verizon's study to this Part B proceeding. The Commission also deferred further consideration of the rate structure for recovery of nonrecurring costs to condition loops.

55 There are three loop conditioning issues that we must resolve:

- First, what are Verizon's nonrecurring rates for loop conditioning?
- Second, how should nonrecurring rates for loop conditioning be assessed?
- Third, should the ILECs be permitted to charge for loop conditioning on loops that are shorter than 18,000 feet long?

**a. Verizon's Nonrecurring Rates for Loop Conditioning**

56 Staff contends that Verizon's work time estimates are several times greater than the estimates used by Qwest for the same activities and that Verizon's proposed charges for loop conditioning are much higher than Qwest's rates that were approved in UT-

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<sup>50</sup> Eighth Supplemental Order, UT-960369, at para. 155.

<sup>51</sup> Seventeenth Supplemental Order, UT-960369, at para. 228-239.

960369.<sup>52</sup> Staff argues that there is no basis for Verizon's engineers or technicians to be less efficient than Qwest's personnel. Even if there were a good explanation for this gross difference in productivity, according to Staff, under the theories used to set TELRIC-based rates, the most efficient and productive time estimates should be used. Therefore, Staff recommends that the Commission reject Verizon's work time estimates and require the company to recalculate its costs and rates using Qwest's time estimates.<sup>53</sup>

57 Covad and the Joint CLECs agree that Qwest's relevant activity times approved in the 8<sup>th</sup> Supplemental Order should be applied to Verizon. According to Covad, the revised calculations for Verizon's nonrecurring loop conditioning charges are \$200.31 for load coil removal for a 25-pair binder group, and \$193.59 and \$364.73 for bridge tap removal at single and multiple locations, respectively.<sup>54</sup>

58 Verizon argues that the Commission should approve the company's proposed rates based on its reported engineering work times. Verizon contends that the Telecom Act requires that Verizon's rates recover its costs, not those of Qwest or any other LEC.<sup>55</sup>

59 Although Verizon discusses in its Reply Brief numerous details regarding the engineering activities that comprise its loop conditioning work time estimates, Verizon offers no explanation for the gross discrepancy between its estimates and those of Qwest. This dispute goes to the reasonableness of Verizon's inputs to its cost study, and not the methodology of the study itself. Verizon's failure to explain how engineering activities to remove load coils and bridge taps on one network can differ from those on another leaves us with no basis to conclude that there is an appreciable difference between Verizon's and Qwest's networks, as far as these engineering activities are concerned. Therefore, we direct Verizon to recalculate its costs and rates using the work time estimates previously approved for Qwest, with one qualification.

60 In UT-960369, Verizon documented that its average loop length is considerably longer than Qwest's average loop length.<sup>56</sup> Because Verizon's average loop length is

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<sup>52</sup> Staff Brief, at page 17.

<sup>53</sup> Staff Brief, at page 18.

<sup>54</sup> See Exhibit T-1310, at page 47.

<sup>55</sup> Verizon Reply Brief, at para. 58.

considerably longer, the additional load coils and bridge taps will cause Verizon to experience longer work times to condition loops, and therefore, higher costs than Qwest. To resolve that disparity, the installation work time estimates approved for Qwest should be adjusted to reflect Verizon's longer loop lengths. Unfortunately, no party has suggested a method for adjusting these values.

61 We take official notice of the submissions in UT-960369 regarding average loop lengths, in order to establish reasonable interim nonrecurring rates for Verizon based on Qwest's loop conditioning work time estimates. The distance-sensitive work time estimates approved for Qwest should be increased by a ratio of 17:13 for Verizon. This ratio reflects that the average Verizon loop is approximately 17,316 feet long versus 13,291 feet for Qwest. Qwest and Verizon will be required to update their average loop length data in Part E of this proceeding. The Commission will establish permanent nonrecurring rates for Verizon based on that updated information.

**b. Loop Conditioning Rate Structure**

62 The Seventeenth Supplemental Order requested parties to address in this proceeding whether ILECs should recover costs only from a CLEC that requests the de-loading or removal of bridge taps, or should recover the costs from all unbundled loops.<sup>57</sup>

63 Covad and the Joint CLECs request that the Commission adopt a rate structure that would recover loop conditioning costs on a per-pair basis. According to Covad, when ILECs receive a request to de-load even a single loop, it is common practice to de-load all 25 pairs in the relevant binder group. Covad argues that this de-loading activity brings the loop plant up to modern design standards and makes the de-loaded pairs available for the provisioning of DSL by either the ILEC itself or other CLECs. This upgrade, according to Covad, is an investment that increases the value of the ILEC's loop plant.<sup>58</sup> Covad also argues that the Commission's interim decision in UT-960369 that the CLEC requesting the activity should pay all of the associated

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<sup>56</sup> Average loop length values for Verizon (17,316) and Qwest (13,291) appear in responses to the WUTC bench request to the Developers of the Benchmark Cost Proxy Model Test Runs using GTE and U S WEST actual loop length data in Docket No. UT-960369, on or about November 21, 1997.

<sup>57</sup> Seventeenth Supplemental Order, at para. 236-237. In the Seventeenth Supplemental Order, we restated our conclusion that the party requesting the activity should pay all costs of removing the load coils.

<sup>58</sup> Covad Brief, at page 9-10. *See also* Exhibit T-1310, at page 45.

loop conditioning costs violates 47 U.S.C. § 251(c)(3) and state laws prohibiting discriminatory rates.<sup>59</sup>

64 Verizon and Qwest disagree with Covad, and claim that it is not “typical” to de-load all 25 pairs in a binder group when a CLEC requests that only one pair be de-loaded.<sup>60</sup> Verizon maintains that conditioning additional pairs in advance presumes a demand for an application of those pairs that may not be correct, and could result in additional work later to restore the pairs to their original configuration.

65 Both Qwest and Verizon contend that Covad’s proposal is inconsistent with principles of cost causation. Verizon argues that Covad’s proposal would result in a CLEC paying only 1/25<sup>th</sup> of the actual costs for loop conditioning where only one pair is de-loaded.

66 Covad and the Joint CLECs are concerned that the ILECs will obtain an unjust benefit by conditioning additional pairs if the CLECs are responsible for the entire cost. However, if this is in fact the practice of the ILECs (an assumption that is not supported by the record), then it seems just as likely that the ILECs – which control a sizeable majority of the market – will incur costs to de-load loop bundles in order to promote advanced services to the CLECs’ benefit.

67 We conclude that it is overly speculative to presume that the ILECs will de-load additional pairs, or that they disproportionately benefit by doing so. Accordingly, we reaffirm that parties requesting de-loading or removal of bridge taps are the cost-causer and must compensate ILECs for the entire nonrecurring costs that are consequently incurred.

**c. Loop Conditioning on Loops That Are Shorter than 18,000 Feet Long**

68 Verizon argues that the CLECs should be required to pay for loop conditioning regardless of the length of the loop because neither the FCC’s Line Sharing Order nor the Commission’s Eighth Supplemental Order qualifies an ILEC’s right to charge for this service based on loop length.<sup>61</sup>

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<sup>59</sup> 47 U.S.C. § 251(c)(3) requires ILECs to provide UNEs on rates, terms, and conditions that are just, reasonable and nondiscriminatory.

<sup>60</sup> Verizon Reply Brief, at para. 66-76. Qwest Reply Brief, at page 24-25.

<sup>61</sup> See FCC Line Sharing Order, at para. 87. See also 8<sup>th</sup> Supplemental Order, at para. 155.

- 69 Covad and the Joint CLECs argue that the Commission should not permit the ILECs to charge for removing bridge taps and load coils on loops shorter than 18,000 feet, because these elements are unnecessary when providing voice grade service on these loops.<sup>62</sup> Covad maintains that the CLECs should not have to pay for bringing these loops up to current design standards. Covad argues that Qwest has admitted as much, based on Qwest's Loop Conditioning Program as part of its Settlement Agreement in Docket No. UT-991358, the U S WEST/Qwest merger case.<sup>63</sup>
- 70 Neither Qwest's Loop Conditioning Program nor the Commission's Ninth Supplemental Order Approving and Adopting Settlement Agreements in the merger case makes any conclusions about whether load coils or bridge taps are unnecessary elements on loops shorter than 18,000 feet. The express purpose of Qwest's Loop Conditioning Program was to reduce the number of loops held or delayed for line conditioning purposes. We decline to read into Qwest's concessions in the Loop Conditioning Program any more than what it plainly states.
- 71 Furthermore, both the FCC and this Commission have previously declined to limit the ILECs' recovery of costs based on the length of loops, in spite of arguments similar to those being made in this proceeding. The record in this proceeding does not sufficiently support Covad's argument that these elements are at all times unnecessary on loops that are shorter than 18,000 feet long, and common sense tells us that Qwest and Verizon would not have incurred the cost to install load coils and bridge taps in the first place unless they served some purpose at some time. Therefore, to be consistent with this Commission's prior rulings, we find that the ILECs are permitted to recover costs associated with loop conditioning for loops of any length.

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<sup>62</sup> Covad Brief, at page 10. Joint CLECs Brief, at para. 102. *See also* Exhibit T-1310, at page 43-44.

<sup>63</sup> Covad Brief, at page 10.

### 3. RECIPROCAL COMPENSATION

#### *Background*

72 Four separate issues are raised in briefs filed by parties regarding reciprocal compensation:

- Does the Commission have authority to set reciprocal compensation rates for local telecommunications traffic?
- What are the appropriate reciprocal compensation rate structure and rates?
- Are CLECs entitled to the tandem switching rate?
- How should interconnection costs be shared?

73 The primary impetus behind arguments by the parties regarding reciprocal compensation has been whether reciprocal compensation payment should be paid for ISP-bound traffic. Overshadowing these issues are arguments by all parties that the FCC's ISP Remand Order<sup>64</sup> preempts certain action by commissions.

74 One of the conditions for application of the ISP Remand Order's interim compensation regime is that an affected ILEC must also elect to offer all of its local traffic at the same interim rate levels, thereby displacing reciprocal compensation rates for local traffic already established by commissions pursuant to Section 252 of the Telecom Act. Briefs filed by various parties disclose that both Qwest and Verizon intend to amend existing interconnection agreements, and to include terms in new interconnection agreements, consistent with the FCC's interim compensation regime.

#### **a. Commission Authority to Set Reciprocal Compensation Rates**

75 Staff interprets the ISP Remand Order to bar the Commission from action concerning reciprocal compensation for ISP-bound traffic for three years, unless the ISP Remand Order is stayed or overturned. However, Staff argues that the FCC Order does not preempt states from setting reciprocal compensation rates for non-ISP-bound local

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<sup>64</sup> *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Intercarrier Compensation for ISP-Bound Traffic, CC Docket No. 96-98; CC Docket No. 99-68, 16 FCC Rcd 9151 (rel. April 27, 2001) ("ISP Remand Order").



traffic. Staff urges the Commission to implement bifurcated rates for non ISP-bound local traffic based on call set-up and duration times to the greatest extent possible.<sup>65</sup>

76 Qwest, Verizon, and the Joint CLECs agree that the FCC's ISP Remand Order prohibits this Commission from ruling on inter-carrier compensation for ISP-bound traffic.<sup>66</sup> Verizon and the Joint CLECs note that the Commission retains jurisdiction over the establishment of just and reasonable rates applicable to the reciprocal compensation obligations under Section 251(b)(5) of the Act.<sup>67</sup> However, the Joint CLECs argue that the Commission's authority to establish reciprocal compensation rates for local traffic (excluding ISP-bound traffic) is also implicated by the ISP Remand Order. The Joint CLECs contend that, in light of Qwest's and Verizon's stated intent to opt into the FCC's interim compensation regime, any decision regarding reciprocal compensation for local traffic would be moot, because the FCC requires that ILECs opting into the regime terminate all local traffic at the same rates established for terminating ISP-bound traffic.

77 We agree that the FCC ISP Remand Order does not directly preempt our authority to establish reciprocal compensation rates for non-ISP-bound local traffic that falls within Section 251(b)(5) of the Act. We also recognize that the FCC's Order may indirectly affect our authority, because it allows ILECs to take advantage of the capped rates for ISP-bound traffic provided they "offer to exchange all traffic subject to section 251(b)(5) at the same rate."<sup>68</sup> We take these factors into consideration in making our decisions regarding rate structure.

78 We also note that the Commission's Declaratory Order on Reciprocal Compensation,<sup>69</sup> entered on January 31, 2002, raises an issue regarding the Commission's authority to establish rates. In that case, the petitioners sought an order declaring that orders entered in UT-960369 did not establish permanent per-minute of use ("MOU") rates for reciprocal compensation. The petitioners also requested that the Commission declare that as a result, interim per-MOU reciprocal

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<sup>65</sup> Staff Reply Brief, at page 11.

<sup>66</sup> See Qwest Brief, at page 44, Verizon Brief, at para. 116, and Joint CLEC Brief, at para. 129.

<sup>67</sup> See Verizon Reply Brief, at para. 141, and Joint CLEC Brief, at para. 130..

<sup>68</sup> See ISP Remand Order, at para. 89.

<sup>69</sup> *In re the Matter of the Petition of Electric Lightwave, Inc., Fox Communications, Inc., International Telecom Ltd, and XO Washington, Inc., for Declaratory Order on Reciprocal Compensation Rates, Declaratory Order on Reciprocal Compensation Rates, Docket No. UT-013073 (January 31, 2002) ("Declaratory Order").*

compensation rates in interconnection agreements approved by the Commission remain in effect until the Commission specifically establishes permanent reciprocal compensation in some other proceeding.

79 We found that the Commission did not establish termination rates for reciprocal compensation in UT-960369.<sup>70</sup> Furthermore, we found that the Commission did not establish a permanent per-MOU reciprocal compensation rate structure. Accordingly, we concluded that our orders in UT-960369 did not establish permanent per-MOU reciprocal compensation rates.<sup>71</sup>

80 Verizon subsequently filed a Petition for Clarification of the Declaratory Order, suggesting that the Commission establish a permanent per-MOU reciprocal compensation rate in this Part B Order.<sup>72</sup> After careful review of the FCC's ISP Remand Order, we affirm that the Commission's authority to establish permanent reciprocal compensation rates in existing interconnection agreements has not been preempted by the FCC.

81 The interim compensation regime adopted by the FCC does not alter existing contractual obligations between parties, except to the extent that parties are entitled to invoke change-of-law provisions in interconnection agreements.<sup>73</sup> Under the ISP Remand Order, commissions simply no longer have authority to address the issue of intercarrier compensation for ISP-bound traffic. Under the rationale of that order, the Commission does not have authority to supplant prior decisions regarding compensation for ISP-bound traffic, but parties remain bound by the Commission's prior decisions that are reflected in existing agreements.

82 Parties are also subject to the Commission's decision that all rates, including reciprocal compensation rates, determined in individual proceedings under the Act, are interim rates to be supplanted by rates established in the Commission's generic

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<sup>70</sup> See Declaratory Order, at Para. 28 and 44. Termination rates are an essential component of reciprocal compensation.

<sup>71</sup> See Declaratory Order, at Para. 32 and 44.

<sup>72</sup> See *In re the Matter of the Petition of Electric Lightwave, Inc., Fox Communications, Inc., International Telcom Ltd, and XO Washington, Inc., for Declaratory Order on Reciprocal Compensation Rates*, Petition for Clarification of Verizon Northwest, Inc., Docket No. UT-013073 (February 11, 2002), at page 2.

<sup>73</sup> See ISP Remand Order, at para. 82.

proceedings.<sup>74</sup> Thus, even though the Commission is restricted by the ISP Remand Order from altering the make-up of traffic entitled to reciprocal compensation, the Commission has authority to establish the appropriate rate structure and permanent rates for the exchange of traffic governed by existing agreements that are not subject to the FCC's interim compensation regime.

**b. Reciprocal Compensation Rate Structure and Rates**

83 Commission Staff argues that the possibility of arbitrage in connection with local traffic (and especially ISP-bound traffic) depends purely upon the assumption that the current compensation rate exceeds the cost of terminating traffic. To correct this, Staff recommends that the Commission adopt a rate structure that includes: (1) call setup and call duration costs; (2) consideration of load factor; and (3) tandem switching versus end-office switching costs.<sup>75</sup> Staff also recommends that the Commission reiterate its policy that a bill-and-keep compensation structure is appropriate only when traffic between two local exchange carriers is roughly in balance. Staff proposes that the Commission make a policy determination on rate structure at this time, then direct the parties to present evidence at a later date regarding the details and technical solutions to implement the bifurcated rate structure.

84 The Joint CLECs oppose a bifurcated rate structure and contend that the Commission should not establish a different rate structure than the existing per-MOU compensation.<sup>76</sup> According to the Joint CLECs, the issue of the appropriate rate structure should be moot, based on statements made by Qwest and Verizon that they agree to terminate all local traffic at the rates established by the FCC's interim compensation regime.

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<sup>74</sup> Consolidated Docket Nos. UT-960307, UT-960309, UT-960310, UT-960323, UT-960326, and UT-960332, Order on Sprint's Petition to Intervene and to Establish Generic Pricing Proceeding (October 23, 1996), p. 5.

<sup>75</sup> Staff Brief, at page 37-38. "Load factor" means the average calling volume relative to the peak calling volume. Switching costs increase to meet the peak volume, but per-minute costs decrease because fixed switching costs can be spread over more minutes of traffic during periods of peak activity.

<sup>76</sup> Joint CLEC Brief, at para. 131-133.

85 The Joint CLECs also argue that Staff's concerns regarding the current per-MOU rate structure arose in the specific context of ISP-bound traffic.<sup>77</sup> Because the Commission no longer has authority to determine the appropriate intercarrier compensation for ISP-bound traffic, the Joint CLECs argue that adoption of a bifurcated rate structure for local traffic would have no practical effect on the compensation that carriers exchange for terminating local traffic. At the same time, adoption of a bifurcated rate structure for local traffic that falls within Section 251(b)(5) could have a significant effect on other switching rates, such as unbundled switching.<sup>78</sup> If the Commission nevertheless decides to adopt a bifurcated rate structure, the Joint CLECs claim that additional proceedings must be conducted because there is insufficient evidence in the record to determine rates in this proceeding.

86 Qwest also opposes Staff's proposed bifurcated rate structure, and argues that a two-tiered rate structure would cause significant administrative burdens and costs for both ILECs and CLECs arising from substantial changes that would have to be made to billing and other systems in order to track initial and additional call minutes separately.<sup>79</sup> Qwest agrees with the Joint CLECs that if Staff's rate structure is adopted, the Commission should determine these rates in another proceeding because there is insufficient evidence in the record.<sup>80</sup> Qwest's witness Ms. Million testified that "[a]s for a usage based mechanism, Qwest believes that the switching rates already established by the Commission are the rates which would apply for reciprocal compensation."<sup>81</sup>

87 Verizon initially proposed separate per-MOU reciprocal compensation rates for non-ISP and ISP-bound traffic.<sup>82</sup> Subsequent to the ISP Remand Order, Verizon argues that the Commission no longer has authority to set rates for ISP-bound traffic. The company argues that Staff's proposal, as it applies to non-ISP traffic, should be rejected.<sup>83</sup>

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<sup>77</sup> Joint CLEC Reply Brief, at para. 13-14.

<sup>78</sup> Joint CLEC Reply Brief, at para. 15.

<sup>79</sup> Qwest Brief, at page 45-46.

<sup>80</sup> Qwest Reply Brief, at page 35.

<sup>81</sup> Exhibit T-1001, at page 18.

<sup>82</sup> See Exhibit T-1190, at page 40; *see also* Exhibit 1191, page 7.

<sup>83</sup> Verizon Reply Brief, para. 141-142.

- 88 The Commission concurs in and supports the Resolution on Jurisdictional Issues for Internet-Bound Traffic adopted by the National Association of Regulatory Utility Commissioners (“NARUC”) Board of Directors on July 18, 2001.<sup>84</sup> NARUC’s Resolution states several exceptions to the FCC’s ISP Remand Order, and NARUC – along with other parties – initiated judicial review of that order to preserve state authority with regard to Internet-related traffic and intercarrier compensation. Although we fundamentally disagree with the legitimacy of FCC policies asserted in the ISP Remand Order, we are bound to abide by them until they are vacated or overturned.
- 89 It is not in the public interest for the Commission to interject greater uncertainty over reciprocal compensation rates into the business operations of telecommunications carriers than that which already exists. In the event that the FCC’s ISP Remand Order is vacated or reversed on judicial review, we will conduct further proceedings regarding the implementation of a flat-rate capacity charge or a bifurcated rate structure.
- 90 For those same reasons, we hesitate to establish a permanent reciprocal compensation rate based on either a flat-rate capacity charge or a bifurcated rate structure to replace interim rates in existing interconnection agreements. These agreements generally are effective for two or three years, and they will be subject to the FCC’s interim compensation regime as they expire. The possibility that the implementation of either preferred rate structure will be rescinded upon expiration of the underlying agreement is too great a burden to impose on parties. However, the implementation of a per-MOU reciprocal compensation rate structure that is based on permanent UNE switching and transport rates approved in UT-960369, poses few, if any, additional burdens.
- 91 The FCC’s Local Competition Order<sup>85</sup> contemplates that local and tandem switching rates are applicable to Section 251(b)(5) reciprocal compensation. In Paragraph 1040, the FCC defined “termination” as the switching of traffic at the terminating carrier’s end-office switch and delivery of that traffic from that switch to the called party’s premises. The FCC further stated that the cost of call termination consists of

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<sup>84</sup> See [http://www.naruc.org/Resolutions/2001/summer/telecom/internet\\_traffic.shtml](http://www.naruc.org/Resolutions/2001/summer/telecom/internet_traffic.shtml).

<sup>85</sup> First Report and Order, *In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, No. 96-98, 11 FCC Rcd 21905, 1996 FCC LEXIS 4312, (rel. Aug. 8, 1996) (“Local Competition Order”).

the traffic-sensitive component of local switching.<sup>86</sup> Thus, according to the FCC, the component of local switching costs that should apply for reciprocal compensation was only the per-minute rate for local switching, and not the flat-rated port charge for local switching. Additionally, the FCC stated that the default price range for the termination part of reciprocal compensation was based on the same proxies that apply to local switching as an unbundled network element.<sup>87</sup>

92 We find that switching as a UNE and switching to terminate a call are functionally the same thing; in both instances, the function performed is the switching of a call through a carrier's end-office or tandem switch. The Commission previously determined that Qwest and Verizon's transport cost models filed in UT-960369 should be used to determine the transport component of reciprocal compensation rates in a per-MOU rate structure.<sup>88</sup> We conclude and order that a per-MOU reciprocal compensation rate structure based on permanent UNE switching and transport rates must replace interim reciprocal compensation rates in existing interconnection agreements. Although such a per-MOU rate structure may be less accurate to reflect carriers' costs to transport and terminate local traffic than a flat-rate capacity charge or a bifurcated rate structure, it better estimates costs than per-MOU rate structures based on interim UNE rates or other rate elements.

**c. Tandem Switch Compensation Rate**

93 The FCC's Local Competition Order and 47 C.F.R. 51.711 address symmetrical rates for reciprocal compensation.

We find that the "additional costs" incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending on whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to the end-office switch. In such event, states shall also consider whether new technologies (*e.g.*, fiber ring or wireless

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<sup>86</sup> Local Competition Order, at Para. 1060.

<sup>87</sup> See Local Competition Order, at Para. 1060. Also Compare Paragraphs 815 and 1060, showing proxy rates of \$0.002 to \$0.004 for both local switching and call termination.

<sup>88</sup> Docket No. UT-960369, 9<sup>th</sup> Supplemental Order, at para. 32. A per-MOU rate structure is an alternative reciprocal compensation method to bill-and-keep.

networks) perform functions similar to those performed by an incumbent LEC's tandem switch and thus, whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch. Where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate.” *Local Competition Order, at Para. 1090.*

- 94 The parties’ dispute regarding tandem rates reflects the fundamental difference between ILEC and CLEC network architecture. ILEC networks employ a hub-and-spoke architecture, with tandem switches residing at the hubs. However, trunks also directly connect end-offices where large volumes of traffic are routinely transported between them, bypassing the tandem switch. CLEC networks are designed in rings, rather than employing hubs. Thus, CLECs incur networking costs for transport and switching different from ILECs.
- 95 A CLEC’s originating traffic that passes through an ILEC’s tandem switch incurs an additional switching cost. Accordingly, a CLEC may pay a tandem switching rate in addition to an end-office switching rate, depending on where the CLEC delivers its traffic. An ILEC, however, does not have a similar (or symmetrical) choice when delivering volumes of traffic to a CLEC, because there is no comparable hierarchal switching function on the CLEC’s network. The parties disagree whether CLECs are entitled to receive reciprocal compensation for terminating some or all ILEC traffic at tandem switching rates.
- 96 The Joint CLECs contend that a Commission decision on this issue may be moot because the FCC’s interim compensation regime establishes a single rate for the transport and termination of local and ISP-bound traffic, without regard to whether that traffic is delivered at a tandem or end-office. Whereas both Qwest and Verizon have declared their intent to adopt the FCC’s regime, a single rate applies for terminating all traffic within a local calling area.<sup>89</sup> Otherwise, the Joint CLECs argue that federal and state law require ILECs to pay reciprocal compensation at the tandem

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<sup>89</sup> Joint CLEC Reply Brief, at para. 16.

rate if the CLEC switch serves a geographic area comparable to the ILEC tandem, regardless of other factors.<sup>90</sup>

97 Qwest contends that a CLEC should only be compensated at the tandem rate when it can demonstrate, on a case-by-case basis, that its switches, serving area, and customer base justify the tandem rate.<sup>91</sup> Qwest thus argues that it would be inappropriate for the Commission to broadly decide that CLECs are entitled to tandem rates. Qwest also argues that it would be improper for the Commission to broadly decide that CLECs are entitled to receive the tandem rate for all local traffic that it terminates. According to Qwest, the FCC's rule establishing rate symmetry for reciprocal compensation requires that analogies be drawn between the way that ILECs and CLECs terminate traffic on their respective networks.<sup>92</sup> Verizon similarly argues that the CLECs' reciprocal compensation rates to terminate local traffic should be symmetrical to the ILECs' rates based on actual network functions performed, and infers that CLECs bear the burden to demonstrate that they are entitled to tandem rates.<sup>93</sup>

98 Commission Staff characterizes the Joint CLECs' argument as "the tandem rate must be paid in all cases where the CLEC switch is *capable* of serving an area comparable to that served by the [ILEC's] tandem switch."<sup>94</sup> Staff rejects that argument as economically unsound and highly inequitable. Staff argues that the economically sound approach is that an ILEC pay the end-office rate if it demonstrates that it would have used direct end-office trunking had the traffic remained on its network.

99 The Ninth Circuit Court of Appeals – in a case originating with this Commission – considered the issue of tandem switch compensation rates subsequent to the filing of briefs in this case.<sup>95</sup> In that case, we initially found that the AT&T Wireless switch was the functional equivalent of a U S WEST end-office switch, even though we also found that AT&T's switch served a comparable geographic area to U S WEST's tandem switch. Thus, we concluded that AT&T was only entitled to reciprocal compensation at the end-office switching rate. Because of our conclusion, we did not

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<sup>90</sup> Joint CLEC Brief, at para. 137.

<sup>91</sup> Qwest Brief, at page 47.

<sup>92</sup> Qwest Brief, at page 48-49.

<sup>93</sup> Verizon Brief, at para. 121-122.

<sup>94</sup> Staff's Reply Brief, at page 14.

<sup>95</sup> U.S. WEST Communs. v. Wash. Utils. & Transp. Comm'n, 255 F.3d 990 (9<sup>th</sup> Cir. 2001). The real parties in interest in the underlying arbitration proceeding were U S WEST and AT&T Wireless.



reach the issue of whether 47 C.F.R. 51.711(a)'s symmetry requirement demanded a two-tiered rate (one tier being the end-office rate, and the other being the tandem rate) for traffic terminated on AT&T's network.

100 The Ninth Circuit Court rejected the functional analysis performed by the Commission, and found that AT&T Wireless was entitled to be compensated at the tandem rate based on the Commission's determination that the company met the geographic area test. The Court's conclusion was supported by a FCC Common Carrier Bureau letter issued under delegated authority, clarifying that 47 C.F.R. 51.711(a)(3).

With respect to when a carrier is entitled to the tandem interconnection rate, the Commission stated that section 51.711(a)(3) of its rules requires only that the comparable geographic area test be met before a carrier is entitled to the tandem interconnection rate for local call termination. It noted that although there has been some confusion stemming from additional language in the text of the Local Competition Order regarding functional equivalency, section 51.711(a)(3) requires only a geographic area test. Therefore, a carrier demonstrating that its switch serves "a geographic area comparable to that served by the incumbent LEC's tandem switch" is entitled to the tandem interconnection rate to terminate local telecommunications traffic on its network.<sup>96</sup>

101 A CLEC that does not meet the geographic area test may still be entitled to the tandem switch compensation rate if the Commission finds that the CLEC's switch is the functional equivalent of the ILEC's tandem switch. However, the only issue addressed by the Ninth Circuit Court was whether AT&T Wireless should be compensated at the tandem rate for some or all of U S WEST's traffic terminated on AT&T's network. The Court expressly did not consider whether 47 C.F.R. 51.711(a)'s symmetry requirement demands either a single rate or a two-tiered rate for both carriers where the geographic area test is met, or where the CLEC switch is determined to be the functional equivalent of the ILEC tandem switch. We now address that issue.

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<sup>96</sup> Letter from Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau of the FCC, and Dorothy T. Attwood, Chief, Common Carrier Bureau of the FCC, to Charles McKee, Senior Attorney, Sprint PCS (May 9, 2001) (internal citations omitted).

- 102 FCC Rule 51.711(a) provides that rates for the transport and termination of local telecommunications traffic must be symmetrical.<sup>97</sup> Rule 51.711(a)(1) further defines symmetrical rates as like rates assessed between carriers for like services. We disagree with the Joint CLEC's argument that a CLEC is entitled to the tandem switch compensation rate for 100% of an ILEC's traffic that is terminated on the CLEC's network. Neither the Ninth Circuit Court of Appeals decision nor FCC orders dictates such an outcome.
- 103 Under the FCC's Local Competition Order, Paragraph 1090, state commissions must determine "whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch." We do not assume that 100% of the traffic terminating on an ILEC's network goes through a tandem switch. Therefore, we conclude that once a CLEC is entitled to tandem compensation, Rule 51.711(a)'s symmetry requirement necessitates that a two-tiered rate be established.
- 104 Furthermore, an assumption that 100% of the traffic terminated by a CLEC should be compensated at the tandem switch compensation rate conflicts with other statements by the FCC. For example, the Local Competition Order, at Paragraph 1086, provides that "where traffic is balanced, net termination charges are zero . . . and the incumbent LEC is provided with correct incentives to minimize termination costs." However, net termination charges would not be balanced, even where traffic is balanced, if *all* traffic that a CLEC terminates on its network is subject to the tandem switch compensation rate.
- 105 Pursuant to 47 C.F.R. 51.711(b), a CLEC may prove to the Commission that it is entitled to an asymmetrical compensation rate. Otherwise, a CLEC entitled to tandem switch compensation rates is subject to a two-tiered rate. We are unable to determine the appropriate two-tiered rate for CLECs based on the record in this Part B proceeding. Parties are directed to present evidence regarding the appropriate standard for setting symmetrical two-tiered rates in Part E.
- 106 Furthermore, the determination whether a CLEC switch serves a geographic area comparable to that served by an ILEC's tandem switch is a decision that cannot be

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<sup>97</sup> Discussion of exceptions as provided in 47 C.F.R. 51.711(b) and (c) is not germane to our findings in this Order.

made as a matter of general application. Prior Commission decisions on the tandem switch compensation rate issue focused on functional comparisons between ILEC and CLEC networks, and the Commission has not had an opportunity to consider relevant criteria for assessing geographic area comparability subsequent to the Ninth Circuit Court's decision. The Commission will continue to consider whether a CLEC's switch serves a geographic area comparable to that served by the ILEC's tandem switch on a case-by-case basis. If the Commission finds that a CLEC switch does not serve a comparable geographic area, then 47 C.F.R. 51.711(a)(3) is not applicable. But the Commission may still establish a two-tiered symmetrical compensation rate if we also conclude that the CLEC's switch is the functional equivalent of the ILEC's tandem switch.

**d. Interconnection Cost Sharing**

107 The Joint CLECs request that the Commission require ILECs to pay a proportionate share of the costs to construct interconnection facilities in both the ILEC wire center and the CLEC switching center under two scenarios: (1) when the ILEC provides interconnection entrance facilities; and (2) when the parties interconnect through collocation.<sup>98</sup> According to the Joint CLECs, any time an ILEC provides entrance facilities it should be assumed that the CLEC incurs identical costs to provide the same functionality in its switching center as the ILEC incurs in its wire center. Therefore, each party should pay the other for an Interconnection Entrance Facility at the ILEC's nonrecurring and recurring rates in proportion to the amount of traffic delivered for termination, including ISP-bound traffic.<sup>99</sup>

108 Qwest agrees to share in the costs of interconnection trunking and entrance facilities in proportion to the amount of local traffic that Qwest originates over those facilities. Qwest argues, however, that ISP-bound traffic is not local and must be excluded from the cost calculations of interconnection facilities.<sup>100</sup>

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<sup>98</sup> Arguments regarding interconnection cost sharing in the Joint CLECs' briefs are, for the most part, attributed to XO, Washington, Inc. ("XO"), one of the Joint CLECs. Nevertheless, we continue to refer to the Joint CLECs for continuity.

<sup>99</sup> Joint CLEC Brief, at para. 141(a).

<sup>100</sup> Qwest Brief, at page 49.

- 109 Regarding the second scenario, when connection is established through collocation, the Joint CLECs contend that they are providing, and should be compensated for, two Interconnection Entrance Facilities – one in the CLEC switching center and one in the ILEC wire center.<sup>101</sup> According to Qwest, the proposal that ILECs also share the costs for facilities that are purchased for collocation lacks both legal and evidentiary support.<sup>102</sup>
- 110 Qwest also maintains that XO’s witness Knowles testified that a substantial part of the motive for collocating is to enable a CLEC to obtain access to UNEs, cross-connect with other CLECs, and provide services to other CLECs. Qwest argues that it should not be required to finance the acquisition of these benefits by CLECs through cost sharing for collocation facilities. Qwest also contends that Mr. Knowles, during cross-examination, testified that XO would pay all of the costs associated with collocation if those facilities are not priced “inappropriately high.” Verizon also points to Mr. Knowles’ testimony that, since the Commission adopted collocation rates in Part A of this proceeding, the issue of cost sharing for collocation facilities has been rendered moot.<sup>103</sup>
- 111 According to the Joint CLECs, the ILECs misinterpret Mr. Knowles’ testimony. According to the Joint CLECs, Mr. Knowles simply narrowed the issue of *how* the CLEC should be compensated for the ILEC’s use of those facilities. He did not concede the issue of *whether* ILECs should compensate CLECs for collocation facilities that the CLEC provides.<sup>104</sup>
- 112 We disagree with the argument that Mr. Knowles’ testimony did not address the core issue of whether ILECs should share the costs of collocation facilities. Mr. Knowles makes clear that that the ILECs should share costs if collocation facilities are being used in part to provide interconnection *and* they are priced inappropriately high.<sup>105</sup> While collocation facilities may also serve to interconnect the parties, CLECs choose to collocate for numerous purposes other than interconnection in order to benefit their own interests.<sup>106</sup> The Joint CLECs do not propose how the parties could separate collocation costs attributable to interconnection from expenses associated with

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<sup>101</sup> Joint CLEC Brief, at para. 141(b).

<sup>102</sup> Qwest Reply Brief, at page 37.

<sup>103</sup> Verizon Brief, at para. 123. *See* TR 3085.

<sup>104</sup> Joint CLEC Reply Brief, at para. 17.

<sup>105</sup> TR 3056-3057 and 3083.

gaining access to unbundled network elements. As acknowledged by Mr. Knowles, because the Commission has established just and reasonable collocation rates in Part A of this proceeding, implementation of collocation cost sharing is unduly burdensome and costly.

113 As for the sharing of costs for interconnection trunking and entrance facilities, we conclude that both interconnecting firms should share the cost of these facilities, regardless of whether the facilities are constructed by the ILEC or the CLEC. We further resolve this issue by adopting the Joint CLECs' proposal with one modification. As argued by the ILECs, the cost sharing for interconnection facilities will be determined according to the relative *local* traffic flow over that facility.<sup>107</sup> Whereas the FCC has concluded that ISP-bound traffic is interstate traffic, this traffic should be excluded from the consideration of interconnection facilities cost-sharing. We may revisit our decision excluding ISP-bound traffic as further judicial and federal regulatory review occurs.

114 Accordingly, the parties should assume that a CLEC incurs the same costs to provide the same functionality in its switching center as an ILEC incurs in its wire center. Each party should pay the other for an Interconnection Entrance Facility (and transport, to the extent not included in the Interconnection Entrance Facility) at the nonrecurring and recurring rates that the ILEC charges when it constructs those facilities, in proportion to the amount of traffic each carrier delivers to the other over those facilities for local termination, excluding ISP-bound traffic.

#### **4. QWEST'S NONRECURRING COSTS AND STUDY METHODOLOGY**

##### ***Background***

115 Nonrecurring costs ("NRCs") are the one-time costs associated with establishing a service or network element, and are expense-based. The development of Qwest's nonrecurring cost studies begins with input from subject matter experts ("SMEs") concerning the types of tasks and activities that are necessary to establish a service or to provide a UNE. These SMEs typically are engineers or product managers.<sup>108</sup>

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<sup>106</sup> TR 3059-3061.

<sup>107</sup> See 47 C.F.R. 51.709.

<sup>108</sup> Qwest Corporation's Part B Post-Hearing Brief (May 29, 2001) ("Qwest Brief") at page 11; Exh. T-1001, at page 7.

116 After the SMEs identify the necessary tasks associated with establishing a particular service or element, they estimate the time needed to perform each task and the probability that the task will have to be performed based on their actual experience or company practice.<sup>109</sup> The performance times and probability estimates developed by the SMEs are then multiplied by the appropriate labor rate to develop the direct costs of a given activity. According to Qwest, the Commission's approved loading factors of 19.62 percent and 4.05 percent are then added to the direct costs to produce TELRIC plus common nonrecurring costs.

117 Qwest presented nonrecurring cost studies in this proceeding relating to the following services and network elements:

- UNE platform (“UNE-P”);
- enhanced extended loops (“EELs”);
- high capacity capable loops;
- sub-loop unbundling;
- unbundled dedicated interoffice transport (“UDIT”) and extended UDIT (“EUDIT”);
- multiplexing;
- on-premise wiring;
- poles, ducts, and rights of way; and
- unbundled dark fiber.

118 Parties dispute aspects of each of these NRC studies, including issues regarding Qwest’s overall cost study methodology. Qwest claims to have adjusted its original studies to comply with the Commission’s prior orders and also to respond to the majority of criticisms from the Staff and the Joint CLECs. Qwest must incorporate the recommendations it has accepted into its NRC cost studies, if it has not already done so in revised exhibits.

**a. Interconnection Service Center (“ISC”) Order Processing Time**

119 Qwest maintains that they have complied with the Commission’s directive to include a six-minute order-processing time in its cost studies. Qwest argues, however, that the

Commission's decision in the Eighth Supplemental Order establishing the input of six minutes for the interconnection service center rests on an error in testimony from a U S WEST witness during the Phase I proceeding in Docket No. UT-960369. Qwest explains that a cost witness inadvertently testified that U S WEST's nonrecurring cost study for the unbundled loop included a work time of six minutes for the interconnect service center ("ISC") when, in fact, the study assumed 45 minutes for the first order and six minutes for each additional order.<sup>110</sup>

120 Qwest has updated its NRC studies over time to reflect efficiencies that it has realized in the ISC through mechanized order processing. Those studies have significantly decreased the time estimate for processing the first order, but it remains substantially more than the six minutes of ISC work time that Qwest is presently must use in its studies to process orders.<sup>111</sup> Qwest argues that the Commission should not perpetuate the erroneous six-minute ISC work time in this proceeding.<sup>112</sup>

121 Commission Staff argues that Qwest did not present testimony in support of its claim that the six-minute time estimate should be modified, and argues that Qwest raised the issue for the first time in its post-hearing brief. Consequently, other parties did not have an opportunity to cross-examine a Qwest witness regarding its proposed modification.<sup>113</sup> We find, however, that Qwest effectively raised this issue in the rebuttal testimony of Ms. Million.<sup>114</sup>

122 Qwest claims that its SMEs have extensive experience in the areas they address and argues that their opinions should be deemed valid because other parties did not present evidence to rebut their opinions. Staff disputes the validity of the work-time estimates provided by Qwest's SMEs. Staff argues that, without time and motion studies or the opportunity to observe the activities that are performed, it is difficult, if not impossible, to obtain such validation.<sup>115</sup>

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<sup>109</sup> TR 1821.

<sup>110</sup> See Qwest Response to Bench Request 02-021.

<sup>111</sup> Compare Exh. C-1002 at page 73 (revised time estimate) with Exh. C-1010 at page 92 (6-minutes).

<sup>112</sup> Qwest Brief at page 18.

<sup>113</sup> Commission Staff's Reply Brief (June 19, 2001) ("Staff Reply Brief") at page 5.

<sup>114</sup> Exhibit T-1009, at page 5, lines 4-7: "Those prior Commission requirements reduced order processing times in ways that are not consistent with Qwest's actual experience, and therefore reflect efficiencies in order processing that have yet to be achieved."

<sup>115</sup> Brief of Commission Staff (May 29, 2001) ("Staff Brief") at page 5.

- 123 Qwest's NRC study, used to derive its 45-minute initial order-time estimate in UT-960369, was performed in December 1996.<sup>116</sup> The significantly lower time estimate in Exhibit C-1002, at page 73, is based on data collected in 1998 and was claimed to be forward-looking to year-end 1999. The substantial reduction in time that occurred between the studies conducted in 1996 and 1998 suggests that order processing time may continue to decrease as the result of increased efficiencies achieved through ongoing mechanization. Qwest's 1998 data appears no more reliable as of the date of the Part B hearings than its 1996 data was in 1998.
- 124 Since it is fair to assume that further improvements have been made at the ISC since 1999, these productivity improvements need to be reflected in Qwest's rates. Furthermore, work time estimates produced by subject matter experts that are unsupported by traditional time and motion studies raise serious concerns regarding the validity of nonrecurring cost studies, especially – as in Qwest's case – where the experts are not made available for questioning.
- 125 The Commission's prior determination of a six-minute order processing time for Qwest's ISC will remain unchanged. The Commission will consider, however, further modifications to the six-minute assumption in the Part E proceeding. Approval of a different time value will be contingent on Qwest showing that the time used in its NRC studies are consistent with current and near-future efficient operations, based on time and motion studies.

**b. Probability of Manual Orders**

- 126 Commission Staff recommends that Qwest be required to lower the probability that the company will receive orders from CLECs without the use of an electronic interface to 25% for certain studies.<sup>117</sup> The Joint CLECs' witness Weiss testified that it is not reasonable to assume that Qwest will receive fax orders on a going-forward basis, and he proposes that Qwest's nonrecurring rates should be based on 100% mechanized order processing.<sup>118</sup>

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<sup>116</sup> UT-960369, Eighth Supplemental Order, at para. 468.

<sup>117</sup> Staff Reply Brief at page 3-4. *See* Exhibit C-1363, last comparison in chart entitled "Probability for Non-Electronic Interconnection."

<sup>118</sup> TR 3647-3649.



127 Qwest argues that the value should reflect the probability that an order is submitted using facsimile transmission. Fax submissions require additional time for manual processing. Qwest accepts orders submitted electronically and by fax, and points out that the company has no control over how CLECs submit orders. Qwest believes that Staff and the Joint CLECs understate the probability of manual orders.<sup>119</sup>

128 The 17<sup>th</sup> Supplemental Order established interim rates that reflect the cost of providing CLEC access to an ILEC's operational support system, including separate rates for manual and electronic ordering.<sup>120</sup> We recognized that the cost of manual access to ILEC systems is greater than electronic access. We reject the suggestion by the Joint CLECs' witness Mr. Weiss that Qwest should not be allowed to recover the additional costs caused by manual order processing because there won't be any orders by fax in a forward looking system. Not only is that suggestion overly speculative, but it conflicts with our decisions entitling ILECs to recover their reasonable costs. If CLECs choose to submit orders by fax, then ILECs must be allowed to recover the reasonable costs they incur for manual processing. One can assume that Qwest's order processing will become more mechanized and that the probability of fax submissions will decrease over time. Nevertheless, the recovery of manual processing costs is consistent with TELRIC principles, and does not constitute a double recovery.

129 Staff's recommendation that Qwest's probability of manual processing be reduced to 25% (and a corresponding increase of the probability of mechanized orders to 75%) is based on a confidential compliance filing that Qwest (then U S WEST) made on November 15, 1999, in response to the Commission's 17<sup>th</sup> Supplemental Order in UT-960369. Qwest did not present any evidence to rebut Staff's contention, and it provided inadequate support for its own estimates. We find that Staff's recommendation is more reasonable. Qwest must make appropriate revisions to its NRC studies to reflect a 75% probability for mechanized orders and a 25% probability for manual orders.

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<sup>119</sup> Qwest Brief at page 14-16. Qwest's confidential estimate applies to certain nonrecurring cost studies in Exhibit C-1002, beginning at page 281.

<sup>120</sup> UT-960369, 17<sup>th</sup> Supplemental Order, at para. 112.

**c. Carrier-Service-Center Telephone Calls**

- 130 Qwest's NRC study states identical carrier-service-center telephone call work times for adding or disconnecting an enhanced extended loop ("EEL").<sup>121</sup> Staff recommends that the carrier-service-center call work-time to add an EEL should be reduced, and that the call work-time to disconnect should be lower than the add time. Staff recommends a six-minute add call work-time because that estimate is at the top of the range for average call time duration.<sup>122</sup>
- 131 Qwest's study uses different descriptions for telephone calls that are made as part of add and disconnect work times. The description for adding an EEL on Exh. C-1002, page 213, includes "Handle customer and internal calls regarding ASR," while the description for disconnecting on page 217 reads "Intracompany calls." At hearing, Staff's witness Jing Roth testified that Staff's recommendation did not assume that the call work-time to add an EEL included both customer and intracompany calls.<sup>123</sup> We agree with Qwest that the description refers to both types of calls, and Qwest's proposed work time for telephone calls to add an EEL are approved.
- 132 However, the work description for disconnecting an EEL provides only for intracompany calls, and should therefore be less than the call work time to add service. Further, it should take less time to process a disconnect because less new information is required.<sup>124</sup> Qwest failed to provide substantive documentation in support of its proposal, in spite of its nearly exclusive control of relevant data. Absent sufficient documentation, we reject Qwest's proposed disconnect call work-time.
- 133 Having found that Qwest's proposal is unreasonable, we must determine an alternative work-time. The proportionate call work-time that it takes to process a disconnect order compared to the call work-time that it takes to add service reasonably should be comparable for both Qwest and Verizon. We order Qwest to adjust its disconnect call work-time downward so that the ratio of disconnect-to-add service work-time is equal to that of Verizon. Qwest is ordered to include this adjustment, and all associated calculations, in a compliance filing.

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<sup>121</sup> Exh. C-1002, at pages 213 and 217.

<sup>122</sup> TR 3905.

<sup>123</sup> TR 3906.

<sup>124</sup> For example, the service address and billing information are already known.

**d. Disconnection Charges**

134 The Commission decided in UT-960369 that it was improper to bundle disconnection and connection costs together, and Qwest was required to establish separate rates for these activities.<sup>125</sup> Qwest filed revised studies in this proceeding separating disconnection charges from connection charges. Qwest argues that the costs for disconnection are real costs that will be incurred, and that the company must be compensated for them. However, Qwest's witness Robert Kennedy testified that Qwest has not previously charged for disconnects in this manner, and that, as a practical matter, Qwest had yet to decide whether and under what circumstances to impose a disconnection charge.<sup>126</sup>

135 The Joint CLECs argue that in most circumstances there will be no basis for any disconnect charge, particularly where a customer transfers service from one local exchange carrier to another. According to the Joint CLECs, Qwest should not be permitted to establish a tariffed wholesale charge for disconnection without a prior determination of the circumstances under which such a charge would apply.<sup>127</sup>

136 We share concerns with some parties whether incumbent LECs develop charges that are rationally related to the actual tasks performed. But at this juncture the record does not present a dispute that requires resolution. Although we have generally declined in the generic proceeding to consider disputes regarding terms and conditions for interconnection and UNEs, we will consider doing so on a case by case basis in the future. Parties also may raise issues regarding the imposition of disconnect charges in some other appropriate proceeding if a genuine controversy exists.

**e. Wholesale Cost Factors**

137 The Joint CLECs argue that Qwest's wholesale cost factors are, in some cases, considerably higher than its retail cost factors. They conclude that Qwest improperly inflates its costs.<sup>128</sup> WorldCom argues that the majority of activities associated with

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<sup>125</sup> See Eighth Supplemental Order, at para. 471-72, and Seventeenth Supplemental Order, at para. 471.

<sup>126</sup> TR 2108-09.

<sup>127</sup> Joint CLEC Post-Hearing Brief (May 29, 2001) ("Joint CLEC Brief"), at para. 40-41.

<sup>128</sup> Joint CLEC Brief, at para. 42.

product management are unnecessary in the case of wholesale services. Further, the costs associated with activities such as product and service identification are already being recovered by the ILECs as part of their OSS recovery in the case of network elements. Therefore, WorldCom recommends that the Commission require Qwest to reduce its product management expense factor to zero.<sup>129</sup>

138 Qwest provided a detailed explanation of how the product management expense factor is developed in response to Bench Request 2-026.<sup>130</sup> Qwest argues that the factors for product management for retail and wholesale are calculated using different expense data because the retail and wholesale organizations are separate from each other and have different operations.<sup>131</sup> According to Qwest, this framework leads to substantial product management costs that are spread over a much smaller base of wholesale customers in comparison to its large base of retail customers.

139 We are not convinced by the arguments of the Joint CLECs and WorldCom regarding wholesale versus retail cost factors. Qwest's response to Bench Request 02-021 and testimony in the record persuade us that these are different fixed costs that should be recovered from their respective users. We conclude that the company's proposed application of wholesale cost factors is reasonable and should be approved.

**f. UNE Combination Platform ("UNE-P" or "UNE-C**

140 Qwest introduced nonrecurring cost studies to reflect the one-time activities that occur when an existing UNE platform is converted and a new UNE platform is connected.<sup>132</sup> According to Qwest, conversion and connection of the UNE-P differs from the activities associated with connecting each individual element.<sup>133</sup>

141 Qwest initially proposed that the Commission adopt the previously approved Customer Transfer Charge (CTC)<sup>134</sup> for UNE-P-existing. Qwest also proposed to use the CTC for private line conversions in place when the CLEC is already the private

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<sup>129</sup> Corrected Part B Post-Hearing Brief of WorldCom, Inc. (May 29, 2001) ("WorldCom Brief"), at page 6.

<sup>130</sup> See also TR 1900-1901.

<sup>131</sup> Qwest Corporation's Part B Post-Hearing Reply Brief (June 19, 2001) ("Reply Brief"), pages 15-16.

<sup>132</sup> Qwest Brief, at page 20.

<sup>133</sup> Exh. T-1001, at page 11.

line customer and desires to convert the circuit to a UNE. Other parties presented alternative proposals.

142 The CTC that Qwest refers to was approved by the Commission for resale, not for UNE rates. The prior CTC study is outdated, and Qwest indicated during the hearing that it would file an updated study in Part D of this ongoing proceeding. Qwest did file its study in Part D, and there was a substantial reduction in the CTC. The Commission issued Bench Request Number 48 (“BR-48”) in this part of the proceeding in order to clarify Qwest’s position regarding the nonrecurring charge to be established in Part B.

143 Qwest’s response to BR-48 states:

In light of Ms. Million’s testimony in Part D, Qwest acknowledges that its proposal for the nonrecurring charge for “UNE-P existing” has been updated since briefs were filed in Part B. Qwest agrees that the Commission could implement the Part D proposed rate (Exhibit TKM-28 9.23.1.1) in its Part B final order.

144 The Commission appreciates Qwest’s willingness to voluntarily update its nonrecurring charge for UNE-P-existing, and we adopt Qwest’s proposed rate stated in Qwest’s Part D Exhibit TKM-28 at 9.23.1.1.<sup>135</sup> Qwest must include that rate in its compliance filings made pursuant to this Order.

**g. Enhanced Extended Loops (“EELs”)**

145 An EEL is a combination of an unbundled DS-1 or DS-3 capable loop, multiplexing equipment, and dedicated interoffice transport. Qwest maintains that there are specific nonrecurring costs associated with the individual elements that comprise the EEL service and also separate nonrecurring costs that reflect the one-time activities that must be performed to establish an EEL link. Qwest believes that its nonrecurring cost study for EELs accurately develops the costs for these activities.<sup>136</sup>

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<sup>134</sup> The customer transfer charge is the nonrecurring rate for the resale of exchange service or other retail services.

<sup>135</sup> Qwest’s Part D Exhibit TKM-28 was marked and admitted into the record as Exhibit No. 2022 in that part of this proceeding.

<sup>136</sup> Qwest Brief, at page 20.

146 As discussed in the cost study methodology section above, Commission Staff proposes work-time reductions for EELs. Qwest argues that Staff's proposed work-time reductions are inappropriate. The Joint CLECs restate objections to Qwest's cost study methodology and propose cost estimates and nonrecurring charges for EELs.<sup>137</sup> Qwest responds that the Commission should reject the Joint CLECs' proposed adjustments because they rely on unrealistic assumptions regarding the flow through capabilities of Qwest's OSS.

147 We rejected the Joint CLECs arguments and proposed adjustments in our discussion regarding Qwest's NRC cost study methodology. Qwest's CSC work times must be adjusted to reflect our other decisions in Paragraphs 127 through 147.

#### **h. High Capacity Loops**

148 Qwest explains that its nonrecurring costs and charges associated with the installation of high capacity loops are calculated using the company's general nonrecurring cost study methodology. Qwest's subject matter experts provide time estimates and probabilities for the different activities required for installation, including time estimates and probabilities for disconnecting loops, delivering loops to demarcation points with the use of interconnection tie pairs, completing circuit wiring, and performing testing.<sup>138</sup>

149 The Joint CLECs argue that Qwest's nonrecurring cost proposal for high capacity loops includes numerous unnecessary activities and activities that would be handled by an efficient OSS system. Qwest responds that the parties agreed on the record that there is no duplication of testing activities in Qwest's studies, and that the costs associated with these testing activities are properly part of Qwest's nonrecurring charges.<sup>139</sup> Qwest also argues that the assumption that all orders received by Qwest are electronic is contrary to the fact that a significant percentage of the orders are transmitted by fax.

150 As Qwest notes, the Joint CLECs withdrew the recommended adjustment for testing activities as part of a stipulation among the parties during the hearing. We agree with

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<sup>137</sup> See Exh. C-1331.

<sup>138</sup> Qwest Brief, at page 23.

<sup>139</sup> Qwest Reply Brief, at page 19. See also TR 3653-54.

Qwest that the assumption of 100% electronic order processing is unreasonable. We reject the adjustments recommended by the Joint CLECs and approve Qwest's proposed rates for high capacity loops, subject to adjustments based on the company's NRC cost study methodology as ordered.

**i. Sub-Loops**

151 The FCC defines sub-loops as “portions of the loop that can be accessed at terminals in the incumbent’s outside plant.”<sup>140</sup> Qwest’s proposed nonrecurring charges for sub-loops are stated in Exhibit 1061, including a Field Connection Point (“FCP”) Quotation Preparation Fee (“QPF”)<sup>141</sup> of \$1,637.04. According to Qwest, this charge covers the costs of assessing the feasibility of accessing the sub-loop at any given location and determining the requirements for making a physical connection. Qwest also proposes that the cost for actually making the connection be determined on an individual case basis (“ICB”), because the company is obligated to provide access to sub-loops at any technically feasible point and connections will vary from case to case.<sup>142</sup> Qwest responds that it could develop standard prices for clearly defined points of access to sub-loops, rather than ICB, if CLECs were willing to agree on this approach.

152 The Joint CLECs contend that in most cases CLECs will seek access at defined points like the feeder-distribution interface (“FDI”), and that Qwest should not have to undertake extensive engineering to determine the availability of access at such defined points.<sup>143</sup> The Joint CLECs argue that the FCP QPF is therefore simply not necessary in most circumstances. Qwest responds that there are many environmental and other factors that justify a FCP field verification charge, and argues that Qwest should be permitted to recover the legitimate costs it incurs for this activity.<sup>144</sup>

153 The Joint CLECs further argue that Qwest has produced little support for its proposed charge. The Joint CLECs contend that the only support in the record for this charge is a single sheet of paper listing the engineering time estimates used in the nonrecurring charge calculation, without any indication as to how these estimates

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<sup>140</sup> UNE Remand Order, at para. 206.

<sup>141</sup> The Quotation Preparation Fee is also referred to as a field verification charge.

<sup>142</sup> Exhibit T-1001, at page 12-13.

<sup>143</sup> TR 1846.

<sup>144</sup> Qwest Reply Brief, at page 20.

were derived or what activities Qwest anticipates will be undertaken in completing the proposed verification.

- 154 The Joint CLECs propose that the Commission, should it decide to permit Qwest's field connection point charge at all, set the field connection point charge at the rate proposed by the Joint CLECs.<sup>145</sup>
- 155 The Joint CLECs also take issue with Qwest's other proposed nonrecurring charges for access to feeder and distribution sub-loops. The Joint CLECs contend that Qwest's proposals include unnecessary activities and inflated time estimates. The Joint CLECs urge the Commission to adopt the Joint CLECs proposed cost estimates and nonrecurring charges for sub-loop elements.<sup>146</sup>
- 156 Based on the record in this proceeding, Qwest's support for its proposed FCP field verification charge is wholly inadequate.<sup>147</sup> The burden of proof is on Qwest to show that its proposed rates are reasonable and the company has failed to do so. Qwest indicated that lower fees would be possible if the CLEC's would indicate where they want to connect. The Joint CLECs have stated that in most cases CLECs will seek access at well-defined connection points. Two such likely points are the FDI and the pedestal.
- 157 On an interim basis, we adopt the \$430 FCP quote preparation fee proposed by the Joint CLECs for sub-loop unbundling at the feeder-distribution interface and the pedestal.<sup>148</sup> Qwest must file field connection point cost studies and develop standard prices for sub-loop access for FDI and pedestal access in the Part E proceeding. Qwest may charge CLECs on an ICB basis for sub-loop access at field connection points other than the FDI and the pedestal. We do not adopt the other sub-loop adjustments proposed by the Joint CLECs.

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<sup>145</sup> Joint CLEC Brief, at para. 49-50.

<sup>146</sup> Joint CLEC Brief, at para. 51.

<sup>147</sup> Exhibit C-1024, at page 182.

<sup>148</sup> See Exhibit C-1331, at page 6.



**j. UDIT/EUDIT**<sup>149</sup>

158 Qwest's UDIT product provides CLECs with a single transmission path between two Qwest wire centers in the same LATA. In addition, the UDIT can be used as a path between one CLEC collocated in one Qwest wire center and another CLEC in a different Qwest wire center. Where facilities are available, UDITs can be provisioned in a variety of bandwidths and, when separate channels are assigned, can provide CLECs with an opportunity to transport both voice and data traffic over the same facility.

159 According to Qwest, its UDIT offerings under consideration in this docket involve levels 3 and 12 Optical Carrier bandwidths (respectively, "OC-3" and "OC-12").<sup>150</sup> Qwest proposes two nonrecurring charges associated with UDITs: DS0 UDIT Transport (\$312.38); and a generic nonrecurring charge for DS1/DS3/OC-3 and OC-12 UDITs (\$352.54). Qwest argues that these charges reasonably compensate Qwest for the time and expense required to implement an order for the UDIT product. EUDIT is the same type of transport facility as UDIT, with the exception that it terminates on one end at a CLEC wire center.<sup>151</sup> The Joint CLECs repeat their arguments that mechanized flow-through capabilities of Qwest's OSS should be 100%, and that Qwest's cost studies include a number of unnecessary activities.

160 We approve Qwest's proposed nonrecurring rates for UDIT/EUDIT, subject to adjustments based on the company's NRC cost study methodology as ordered.

**k. Multiplexing**

161 Qwest states that the cost issues involving multiplexing relate to Qwest's product offering of DS0 Low Side Channelization. This element consists of the equipment plug-ins that are placed in the DS0 side of a DS1/DS0 multiplexer. Low Side Channelization provides transmission facilities between a customer's premises and a serving wire center, the wire center where a CLEC is collocated, or multiplexing equipment. According to Qwest, the company incurs nonrecurring costs associated with high-side and low-side multiplexing activities, and Qwest proposes nonrecurring

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<sup>149</sup> "Unbundled Dedicated Interoffice Transport," and "Extended Unbundled Dedicated Interoffice Transport."

<sup>150</sup> Qwest Brief, at page 25; *see also* Exhibit T-1062, at page 17.

<sup>151</sup> TR at 2115.

rates to recover these costs.<sup>152</sup> The Joint CLECs argue that Qwest's multiplexing costs studies, like Qwest's other cost studies, include a number of activities that should be eliminated by an efficient OSS system, and that a number of activities are unnecessary.

162 We previously rejected the Joint CLECs' proposed adjustments. We approve Qwest's proposed nonrecurring rates for multiplexing, subject to adjustments based on the company's NRC study methodology as ordered.

### **I. Poles, Ducts, and Rights of Way**

163 Qwest introduces nonrecurring charges for four activities relating to poles, ducts, and rights of way: (1) pole inquiry fee per mile; (2) innerduct inquiry fee per mile; (3) field verification fee for poles; and (4) field verification fee for manholes.<sup>153</sup> The Joint CLECs object to Qwest's proposed charge for conducting a field verification of conduit occupancy. This charge is based on the costs that Qwest estimates it incurs to physically inspect each manhole along a proposed route of conduit to ensure that sufficient space exists to accommodate a requesting CLEC's fiber. According to the Joint CLECs, Qwest is compensated for the costs of conducting an electronic database search through a separate conduit occupancy inquiry fee. The Joint CLECs argue that an additional field inspection should not be necessary, and that the CLECs should not be responsible for paying Qwest to verify its own records.<sup>154</sup>

164 Qwest claims that while it does maintain records relating to conduit use, the availability of those records does not eliminate the need to perform field verifications. Qwest asserts that visual inspections are necessary because there are many circumstances that occur in the field that can affect the availability of a conduit route.<sup>155</sup> Qwest argues that even though the company regularly updates its records, it is unavoidable that changes in the field will outpace Qwest's ability to keep records current.<sup>156</sup>

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<sup>152</sup> Qwest Brief, at page 25; *see also* Exhibit 1063.

<sup>153</sup> Exhibit T-1062, at page 19.

<sup>154</sup> Joint CLEC Brief, at para. 54.

<sup>155</sup> Qwest argues that, for example, conduit routes can be damaged through construction activities or by environmental factors such as flooding.

<sup>156</sup> Qwest Reply Brief, at page 22.

- 165 The Joint CLECs also argue that Qwest overestimates the time required to conduct a field verification in a manhole, and that it is not necessary to check every manhole along a conduit route. The Joint CLEC's witness Rex Knowles testified at hearing that based on engineering estimates he has received, two hours work time (not including travel time) is reasonable to inspect a manhole.
- 166 Qwest responds that the CLECs did not challenge these assumptions in pre-filed testimony, and the company characterizes the unsupported work time estimates by the Joint CLECs' anonymous subject matter experts as unrealistic. According to Qwest, the unsupported work time estimates prepared by its anonymous subject matter experts are more reasonable. Qwest maintains that if a CLEC requests to place its fiber in a conduit, then the entire route must be inspected.
- 167 The Commission favors establishing tariffed nonrecurring rates to the greatest extent possible in order to avoid the uncertainty inherent in ICB pricing. At the same time, we remain concerned that some generalized decisions may promote inefficiency over efficiency. We find it particularly difficult to make informed decisions where the parties provide very little information of record for us to consider, as in this instance. Further, as is the case in all of these nonrecurring cost studies, the incumbent LEC is the party in the best position to provide information relevant to its own activities. Qwest's argument that the validity of its proposed rates can be inferred from the fact that other parties are not forthcoming with independent studies is thin.
- 168 We begin our review of Qwest's proposed nonrecurring costs to conduct field verifications by considering Qwest's electronic database search activity that is recovered through a separate conduit occupancy inquiry fee. If Qwest must conduct database searches and field verifications as a result of CLEC service requests, then it must also conduct these activities for itself. We also expect that Qwest continues to update its inventory of available facilities as part of its ongoing network maintenance as expansion occurs.
- 169 We are concerned that Qwest may be rolling its own costs for conducting database searches and field verifications into loading factors that are consequently applied to wholesale costs, in which case Qwest would receive a double recovery. More information is needed to ascertain whether a double recovery is occurring. Consequently, the nonrecurring charges for database inquiries and field verifications

approved in this Order are interim rates. Qwest must demonstrate in the upcoming Part E proceeding that it does not receive a double recovery of these fees.

170 We accept that some field conditions will require that some reasonable verification occur, but Qwest's proposal to inspect every manhole along a prescribed route is excessive. There are provisions for engineering in installation rates to account for a certain amount of non-routine activities caused by unexpected conditions. However, as a matter of conducting a pre-order confirmation to ensure the reliability of Qwest's electronic database, Qwest should only inspect those manholes where congestion is likely to occur.<sup>157</sup> In high-density urban corridors, it should not be necessary to visually inspect facilities (manholes or poles) more than once a block. In low-density corridors, it should not be necessary to visually inspect facilities (manholes or poles) more than once every four blocks. We tentatively define high-density corridors as wire centers that were classified as zones one and two in UT-960369.<sup>158</sup> The remainder of the wire centers are tentatively classified as low-density corridors.

171 Based on our prior decisions regarding time estimates for work activities performed in manholes, we find that the Joint CLEC's proposed two-hour work time estimate is more reasonable than Qwest's estimate.<sup>159</sup> Further, Qwest must adjust its nonrecurring rates for poles, ducts, and rights of way consistent with adjustments based on the company's NRC cost study methodology as ordered. We try to make the best decisions possible based on the record that is placed before us, but in this instance we find the record to be scant. We expect that parties will comment about these decisions in petitions for reconsideration.

### **m. Unbundled Dark Fiber ("UDF")**

172 Qwest states that unbundled dark fiber is a deployed unlit pair of fiber optic cable that connects two points within Qwest's network. There are two distinct types of UDF: (1) UDF interoffice facility, which is an existing route between two Qwest wire centers; and (2) UDF-Loop, which is an existing loop between a Qwest wire center

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<sup>157</sup> Since sub-surface conduits generally run in straight lines and are placed beneath roadways, congestion will likely occur at street intersections where the routing of facilities are likely to aggregate and disaggregate.

<sup>158</sup> See UT-960369, 24<sup>th</sup> Supplemental Order.

<sup>159</sup> We note, for instance, the Commission found that two hours was a reasonable time for splice location visits in the course of load coil removal in UT-960369, Eighth Supplemental Order, at Para. 150.

and either a fiber distribution panel located at an appropriate outside plant structure or an end-user's premises.<sup>160</sup> Qwest argues that the Commission should approve its proposed charges because no party offered any evidence specifically challenging Qwest's proposed NRCs for dark fiber.<sup>161</sup>

173 The Joint CLECs maintain that Qwest's proposed service inquiry charges to determine whether dark fiber is available is unnecessary. According to the Joint CLECs, Qwest's proposal to charge for both a records inquiry as well as field verification is unreasonable because Qwest should know the location and amount of dark fiber in its network without a physical inspection.<sup>162</sup>

174 As stated above, the nonrecurring inquiry and field verification fees approved in this Order are interim rates. Qwest must demonstrate in the upcoming Part E proceeding that it does not receive a double recovery of these fees. Likewise, as a matter of conducting a pre-order confirmation to ensure the reliability of Qwest's electronic database, Qwest should only inspect those manholes where dark fiber is in short supply and where dark fiber is likely to aggregate and disaggregate. In high-density urban corridors, it is not necessary to visually inspect facilities more than once a block. In low-density corridors, it is not necessary to visually inspect facilities more than once every four blocks. Qwest must adjust its nonrecurring rates for poles, ducts, and rights of way consistent with adjustments based on the company's NRC cost study methodology as ordered.

**n. On-Premise Wiring**

175 Qwest presents a recurring cost study for building cable in response to FCC decisions relating to on-premise wiring, and to CLEC requests. Qwest states that it will address the recovery of costs for these activities in individual dealings with CLECs that request this element.<sup>163</sup> The Joint CLECs state that this issue is under consideration in UT-003022/003040 (Qwest's SGAT/271 proceeding), but they contend that Qwest's proposal should be rejected if Qwest continues to propose field connection point ("FCP") charges for access to on-premise wiring.

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<sup>160</sup> Exhibit T-1062, at page 20.

<sup>161</sup> Qwest Brief, at page 26.

<sup>162</sup> Joint Brief, at para. 58.

<sup>163</sup> Qwest Brief, at page 27.

176 Qwest agrees that issues relating to the terms and conditions of CLEC access to on-premise wire may be best addressed in other proceedings. However, Qwest states that some decision must be made in this proceeding because CLECs have expressed a present interest in purchasing this network element. Qwest maintains that CLECs often will be able to gain direct access to wiring in multi-dwelling units without having to establish an FCP. However, according to Qwest, there may be cases where FCP-related charges are necessary.<sup>164</sup> Qwest argues that it incurs costs when performing these tasks and, therefore, Qwest is entitled to recovery.<sup>165</sup>

177 We agree with Qwest that the circumstances surrounding on-premises wiring call for discussions between the company and CLECs requesting this element on an individual case basis. In the event that parties are unable to agree over the pricing of access to on-premises wiring, the Commission will invoke post-complaint procedures similar to those established by WAC 480-09-530 to expedite resolution of the parties' dispute.<sup>166</sup>

## **5. QWEST'S RECURRING COST STUDY**

### **a. Description of Studies**

178 Qwest contends that all of its recurring cost studies are TELRIC-based and follow the same basic steps to develop monthly, recurring TELRIC estimates. As more fully described below, the CLECs, Staff, and TRACER criticize a number of assumptions used in Qwest's model.

179 First, According to Qwest the studies – with the help of SMEs – define the network element or service for which Qwest is developing costs. Second, a cost analyst determines the amount of investment that is needed for the element or service, including expenses associated with placing the equipment based on actual vendor prices for material and equipment. Third, a cost analyst includes capital costs in the study that includes a cost of money of 9.63% and the depreciation lives established in Docket No. UT-951425. Fourth, Qwest calculates investment-related operating

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<sup>164</sup> Qwest states, for example, an FCP charge is necessary to recover costs where a CLEC asks Qwest to perform cross-connects or where Qwest must retrofit terminals on-premises to enable direct CLEC access.

<sup>165</sup> Qwest Reply Brief, at page 23.

expenses, such as maintenance expenses, using annual cost factors that the cost analyst applies to investment.

180 Qwest allegedly develops these cost factors to be consistent with the 25th Supplemental Order in UT-960369 based on operating data showing the historical relationship between expenses and investment that the company has experienced, with adjustments to account for inflation and increases in productivity. Qwest's recurring studies also use the factor of 19.62% for attributed costs and the common cost factor of 4.05% that the Commission approved in the Seventeenth Supplemental Order. Finally, Qwest claims to validate the results of its recurring cost studies by comparing them to other cost data and the results of other cost studies to ensure reasonableness.<sup>167</sup>

**b. Total Installed Factor ("TIF")**

181 As noted above, after defining the network element or service being studied, Qwest must determine the total installed investment that the element or service will require. Total installed investment is a combination of material and equipment costs plus investment loadings associated with, but not limited to, installation, engineering, and warehousing. According to Qwest the total installed factor ("TIF") is a cost factor that combines all proper investment loadings into one factor that, when multiplied against the material investments, provides a total installed investment.<sup>168</sup> Qwest believes that its TIFs are reasonable, forward-looking, and well supported by the company's actual experience in Washington state.

182 While installation and engineering costs are the major TIF components, the TIF also includes costs associated with a number of other factors, including investments for: (1) testing and power equipment required to properly operate the equipment represented by the material investment; (2) sales tax and interest during construction, added to the material investment to cover expenses Qwest incurs when it purchases equipment; and (3) warehousing and transporting the equipment from Qwest's warehouses to the equipment's ultimate location.<sup>169</sup> Qwest relies on current General

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<sup>166</sup> WAC 480-09-530 establishes expedited procedures for the enforcement of interconnection agreements.

<sup>167</sup> Qwest Brief, at page 27-29.

<sup>168</sup> Exh. 1009, at page 6.

<sup>169</sup> Exhibit 1009, at page 6-7.

Ledger Journal files, as reflected in the company books, as well as other company reports to calculate each of the underlying factors that make up the TIF.<sup>170</sup>

183 Qwest believes that its practice of developing a factor that reflects “actual” average costs to be added to material investments is more accurate than relying on engineering estimates and is appropriate in forward-looking cost studies. This is because the equipment for which TIFs are developed come in many configurations and forms and because “no two jobs are alike.” Often there are “peaks and valleys in engineering estimates, making estimating very difficult and not as accurate as using actual expenditures collected for the equipment being installed to develop an average loading factor.”<sup>171</sup> Because the TIF represents a relationship of material investment to related expenditures based on data from the most current time period, Qwest contends that the TIF provides a forward-looking cost estimate based on Qwest’s actual experience installing equipment.

184 The Joint CLECs claim that Qwest’s TIFs are a good example of the problem inherent in Qwest’s recurring cost analyses. According to the Joint CLECs, Qwest has not provided any evidence demonstrating that its TIFs, which reflect “actual” costs, bear any relationship to the costs that would be incurred by a “least cost, most efficient provider.”<sup>172</sup> Qwest responds that the Joint CLECs erroneously rely on a single TIF element— installation costs – as being overstated to support their claim that all of Qwest’s TIFs are inflated, in spite of the fact that many TIF elements have no associated installation costs (i.e., transportation, finance charges, and warehousing).<sup>173</sup> Qwest contends that if there were any merit to the argument that its TIFs do not reflect efficient industry practices, the Joint CLECs would have revealed their own TIFs in support their claim. TRACER responds that Qwest’s TIFs are at issue, not the CLECs’ TIFs.<sup>174</sup>

185 TRACER proposes that the Commission adopt TIFs of 1.40 and 1.20 for optical/digital hard-wired and plug-in plant investments, with additives of 0.06 to each of these factors to allow for the costs of warehousing hardwire and plug-in

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<sup>170</sup> Qwest Brief, at page 30. *See also* Exhibit 1009, at page 7.

<sup>171</sup> Qwest Brief, at page 8-9.

<sup>172</sup> Joint CLEC Reply Brief, at para. 9.

<sup>173</sup> Qwest Reply Brief, at page 28. *See also* Exhibit T-1009, page 23-24.

<sup>174</sup> TRACER Reply Brief, at para. 5.



inventory where appropriate as proposed by the Joint CLECs.<sup>175</sup> Commission Staff also states a concern that Qwest's TIFs appear to be inflated. Staff states that Qwest's loading factors, which are in the range of 1.7 to 2.1, historically range from 1.3 to 1.5.<sup>176</sup>

186 Staff has two other concerns regarding Qwest's TIFs. First, the expense and investment amounts used to develop the TIFs are based on experience from 1997.<sup>177</sup> Forward-looking costs should be based on reasonably current data, and Staff believes the 1997 data is borderline, at best, in representing forward-looking costs. Second – as discussed in Exhibit 1028 – the 1997 expense data are stated to be based on 1997 General Ledger entries. Staff contends that it is unable to confirm the accuracy or validity of the proposed TIFs because Qwest has provided no documentation or workpapers showing how the General Ledger amounts were used to arrive at Washington state specific expenses for calculating the TIFs. Staff believes that given the age of the data and lack of documentation provided by Qwest, the adjusted TIFs proposed by the Joint CLECs are more reasonable and should be adopted by the Commission.<sup>178</sup>

**c. Qwest's NRC Methodology**

187 The Joint CLECs claim that there are two major flaws with Qwest's new recurring cost studies filed in Part B.<sup>179</sup> First, the Joint CLECs disagree with Qwest's decision to disregard cost models that were evaluated by the Commission in the prior cost docket, and to rely on new models that use a different methodology.<sup>180</sup> The Joint CLECs contend that it would be inappropriate to adopt common cost factors that were developed in reliance on those prior studies (as Qwest proposes). They also argue that Qwest fails to demonstrate that the inputs, assumptions, and methodologies used in its new cost models are consistent with Commission decisions in UT-960369.

188 Second, the Joint CLECs claim that Qwest's recurring cost models rely, not on forward-looking costs as required by TELRIC principles, but rather on the company's

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<sup>175</sup> TRACER Brief, at para. 19.

<sup>176</sup> TR at 3886.

<sup>177</sup> Exhibit C-1027.

<sup>178</sup> Staff Reply Brief, at page 9. See Exhibit T/CT-1330 at pages 9-11, 17.

<sup>179</sup> Exhibit T-1310, at page 8-9.

<sup>180</sup> Joint CLEC Brief, at para. 65-67. See Qwest Response to Bench Request 2-024.

embedded costs.<sup>181</sup> The Joint CLECs believe that the Commission should reject all of Qwest's recurring cost studies and require Qwest to refile studies that comply with the Telecom Act and the prior findings of the Commission.

189 Qwest argues that the allegation that its cost studies improperly relies upon embedded costs is based on the Joint CLECs taking testimony by Qwest's witnesses out of context. According to Qwest, its cost studies rely on forward-looking technologies and network design, and apply forward-looking productivity and inflation factors to investment to yield forward-looking, not embedded, costs.<sup>182</sup>

190 TRACER asserts that Qwest's cost studies overstate costs because they estimate costs on an element-by-element basis, and therefore fail to incorporate the full economies of scope and scale available to Qwest.<sup>183</sup> Qwest responds that TRACER makes incorrect generalizations and mischaracterizes Qwest's methodology. According to Qwest, its models are consistent with the methodology approved in previous cost proceedings and include the economies of scale that result from building an entire network.<sup>184</sup>

#### **d. Utilization or Fill Factors**

191 The Joint CLECs challenged Qwest's utilization, or fill factors, and proposed an alternative utilization value of 85% for DS1 and DS3 capable loops.<sup>185</sup> They argue that Qwest has overstated all costs by using unrealistically low fill factors and by applying TIFs that are substantially inflated compared to industry practices. Qwest maintains that the Joint CLECs' claim that an 85% fill would be achieved in a competitive market is unsupported by any real-world experience and is not supported

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<sup>181</sup> Joint CLEC Brief, at para.68.

<sup>182</sup> Qwest Reply Brief, at page 26.

<sup>183</sup> TRACER Brief, at para 7.

<sup>184</sup> Qwest Reply Brief, at page 27. *See also* Exhibit T-1009, at page 19.

<sup>185</sup> Utilization or fill factors are used to increase per line costs of various facilities to recover the cost of unused network capacity that results from breakage, customer churn, and near term growth in demand. All else being accurate, if fill factors are assumed to be unreasonably low, a model will reflect an inefficient network and costs will be overstated. This is because a relatively small number of lines in service will be responsible to recover the cost of an inefficient level of excess capacity. Conversely, if fill factors are unreasonably high, costs will be understated and an efficient firm will not be able to recover its costs to provide network elements.

by the record. Qwest points out that the Joint CLECs refused to disclose their DS-3 utilization rates for comparison.<sup>186</sup>

192 TRACER also believes a utilization factor of 85% for DS1 and DS3 capable loops is more appropriate.<sup>187</sup> TRACER asserts that Qwest's assumption of a 37% utilization factor for DS-1 availability from OC-3 multiplexing increases the direct material cost of the common equipment associated with providing DS1-capable loops by over 170%. Qwest's witness Million criticized the proposed 85% utilization rate as too high, and cited the example of an OC-3 ring architecture deployed to serve demand at more than one location. TRACER disagrees with Qwest's analogy of the utilization of the ring and its segments, claiming that utilization would be 100%, and not 33% as claimed by Qwest.

193 More importantly, TRACER contends that Qwest's analysis fails to account for the numerous circumstances where it is possible to aggregate the demand from a number of end-user customers located in the same building or complex. TRACER maintains that by looking only at individual end-user demand in modeling DS-1 costs and ignoring the situations where demand at a multi-tenant location can be aggregated, Qwest understates the efficiencies that can be achieved by deploying OC-3 fiber-based architectures and, accordingly, overstates DS-1 costs. Regarding fiber fill, TRACER believes that a utilization factor of 100% is appropriate and consistent with what the FCC has ordered for use in the in the federal universal service mechanism.<sup>188</sup>

194 Qwest points out that this Commission and the FCC agree that the use of fill factors that are greater than actual and projected fill factors is contrary to TELRIC pricing principles.<sup>189</sup> Qwest argues that, based on these rulings, it is entirely proper for the company to rely on its actual experience to derive forward-looking fill factors.<sup>190</sup>

195 Qwest also argues that TRACER's proposal of an 85% utilization rate is wrong for a number of reasons. First, Qwest asserts that it offers multiple architectures for high capacity loops each having a different utilization rate ranging from 39% to 100%.

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<sup>186</sup> TR at 3585; Exhibit 1338.

<sup>187</sup> TRACER Brief, at para. 13-14.

<sup>188</sup> TRACER Brief, at para. 15-17.

<sup>189</sup> Eighth Supplemental Order, at para. 171; Local Competition Order, at para.682.

<sup>190</sup> Qwest Reply Brief, at page 28.

Qwest states that TRACER's focus on the utilization rate of 37% for Qwest's OC3-based SONET fiber multiplexed architecture creates the misimpression that this utilization rate is indicative of the overall utilization rates that Qwest uses in its cost studies for high capacity loops, which, Qwest argues, is not the case.<sup>191</sup>

196 Second, Qwest explains that the 37% utilization factor for OC3-based SONET fiber multiplexed architecture that the company uses in its cost studies is higher than the utilization rate that Qwest actually experiences for this element. Third, Qwest contends that it uses the OC3-based architecture only when it is the least-cost solution, not deploying it until demand for DS1s at a given location exceeds 11 DS-1s. Finally, Qwest asserts that the 85% utilization factor advocated by the Joint CLECs could only exist in a hypothetical network, which is not the proper focus of a TELRIC study.<sup>192</sup>

197 The Joint CLECs argue that the Commission should summarily reject Qwest's cost model because (1) Qwest has not shown that its current model comports with the model it submitted in UT-960369,<sup>193</sup> and (2) Qwest's model is based on embedded costs. The Commission rejects these arguments. We do not believe that the evidence supports rejecting Qwest's current model based on differences with the model it sponsored in the previous generic cost proceeding. The Commission has already expressed its reluctance to rely on the cost models that we reviewed in UT-960369 in future proceedings, given that "none of the models satisfies the Commission's objective of being open, reliable, and economically sound."<sup>194</sup> Furthermore, no party submitted convincing testimony identifying significant methodological flaws in Qwest's model that would prevent it from providing reasonable forward-looking cost estimates.

198 The Joint CLECs, citing Exhibit No. 1310, at pages 10-12, have also criticized Qwest's model as being "based on the embedded costs" of the company's existing network. However, the testimony cited by the Joint CLECs addresses the legal effect of the Eighth Circuit Court's ruling on TELRIC principles, which we do not find to be illuminating in this discussion. No party has shown that Qwest's model will

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<sup>191</sup> Qwest Reply Brief, at page 30.

<sup>192</sup> Qwest Reply Brief, at page 31-32.

<sup>193</sup> Qwest's response to Bench Requests 02-023 and 02-024 show that only some of the model inputs are similar.

<sup>194</sup> Eighth Supplemental Order, UT-960369, at para.38.

produce embedded cost estimates, and our review of these studies leads us to conclude that they are capable of producing forward-looking cost estimates. We next focus on the specific input adjustments recommended by various parties.

199 The Joint CLECs and Staff expressed concern that the TIFs employed by Qwest are substantially inflated when compared to industry practices. Staff also questioned the accuracy of the proposed TIFs because Qwest allegedly did not adequately document how the TIFs were calculated, and because these values are based on data from 1997. For these reasons, the Joint CLECs and Staff argue in favor of replacing Qwest's TIFs with the values proposed by the Joint CLECs. The Commission rejects this proposal and accepts Qwest's TIFs for several reasons.

200 First, no party has shown that the application of Qwest's TIFs to its equipment cost estimates results in unreasonable installed cost estimates. Instead, parties have argued that Qwest is inefficient. There is no evidence on record, however, showing that Qwest's installed cost estimates are unreasonable, and we are not persuaded that Qwest's TIFs or the resulting cost estimates are unreasonable. The Joint CLEC relied on input assumptions that were consistent with the "experience" of its witness.<sup>195</sup> This Commission has expressed its preference for reliance on "hard" data that can be validated rather than the opinion of subject matter experts.<sup>196</sup>

201 The Joint CLECs did not introduce any evidence that demonstrated that the installed costs proposed by its witness were consistent with cost levels achieved by carriers. This could have been done, for example, by comparing Qwest and the Joint CLECs' proposed input values with the values adopted by the Federal Communications Commission in its High Cost Order.<sup>197</sup> Qwest's data, on the other hand, were not based on the opinion of an expert. Rather, the TIFs were derived from Qwest's records and therefore reflect costs actually incurred.<sup>198</sup> Therefore we do not accept the Joint CLECs proposed changes to Qwest's TIFs.

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<sup>195</sup> Exhibit T-1330, at page 11.

<sup>196</sup> See UT-960369, Eighth Supplemental Order, at paragraphs 450-53.

<sup>197</sup> *In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket No. 96-45; CC Docket No. 97-160, Tenth Report and Order, 14 FCC Rcd 20156 (rel. November 2, 1999) ("High Cost Order").

<sup>198</sup> Exhibit T-1009, at pages 6-8.

202 Second, the TIFs proposed by the Joint CLECs are largely based on testimony of Mr. Weiss.<sup>199</sup> Drawing on his experience with Verizon and a small independent telephone company, Mr. Weiss recommended that the Commission order a reduction in the TIFs used for a limited number of accounts. The Commission has concluded that it is not appropriate to adopt these recommendations. We do not find the Joint CLECs argument convincing because small companies are known to have less buying-power than large companies.<sup>200</sup> We would expect to observe smaller TIFs for a small company because it has to pay more for materials. Since TIFs are calculated as installed cost divided by material cost, a larger expenditure for materials will raise the value of the denominator in the TIF calculation and therefore lower the value of the ratio, all else being equal.

203 Third, regarding the age of Qwest's data, neither the Joint CLECs nor Staff proposed substituting TIFs from 2001 for Qwest's numbers. Also, based on the Commission's review of responses to Bench Request 02-025, there is no evidence indicating that Qwest's TIFs from 1997 result in an overstatement of costs. We accept Qwest's proposed TIFs.

204 TRACER and the Joint CLECs have proposed that the Commission reject Qwest's proposal and instead adopt an 85% fill factor for high capacity loops. The Commission rejects this proposal for two reasons. First, Qwest has shown that the level of demand assumed by the Joint CLECs is not an appropriate assumption for a TELRIC study because it is inconsistent with current or foreseeable future demand.<sup>201</sup> Second, the Commission finds convincing Qwest's argument that the use of OC3-based architecture is the least-cost solution when demand for DS1s at a given location exceeds 11 DS1s, even if the utilization rate for this architecture may be lower than the utilization rate for other solutions.<sup>202</sup> We approve Qwest's proposed utilization rates for high capacity loops.<sup>203</sup>

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<sup>199</sup> Exhibit T-1330, at pages 10-11.

<sup>200</sup> *See, for example*, discussion in the FCC High Cost Order, at Para. 146-49, regarding the need to reflect in its cost model the superior buying power that non-rural LECs may have in comparison to small independent companies.

<sup>201</sup> Exhibit T-1009, at page 31-32; and TR at 3675-3682.

<sup>202</sup> Qwest Reply Brief, at page 31.

<sup>203</sup> There are a number of fill factors used in Qwest's study. There is a systematic and sensible pattern in the study whereby the utilization decreases with the capacity of the equipment. Where the capacity of the equipment is one DS1, the level of utilization is above 95%. Where the capacity of the equipment is large (i.e., 84 DS1 links), the capacity is 37%. The level of utilization used in the study is reasonable given the variation in the capacity of the equipment and the level of demand. *See* Exhibit

205 The Commission has also identified problems regarding TRACER's proposal to use the 100% fiber fill rate adopted in the FCC's High Cost proceeding within Qwest's model. First, TRACER failed to show that the record supported this proposal. Second, TRACER did not show that Qwest's model sizes cables in a manner that is consistent with the FCC's model. Third, although we agree that the FCC's assumption of 100% fill (based on 2 "lit" fibers and 2 standby fibers per 4-fiber DLC connection) is a reasonable starting point, we must also take breakage into consideration. While breakage is accounted for by the FCC's cost model, TRACER cited no evidence indicating that inserting a 100% fill rate in Qwest's cost model would satisfactorily address breakage. We reject TRACER's proposal.

206 The Joint CLECs have questioned the appropriateness of applying the common cost factors developed in UT-960369 to the current Qwest studies. Although the Commission concludes in this Order that testimony submitted in this proceeding explicitly identified problems with applying the common costs factors from Docket No. UT-960369 to Verizon's current cost studies, no party has shown that this same problem exists with respect to Qwest. Therefore, we approve the common cost factors from Docket No. UT-960369 for use by Qwest in this proceeding.

207 Finally, the Joint CLECs point out that Qwest's cost studies were not adjusted to reflect the anticipated cost savings from the U S WEST/Qwest merger. However, the Joint CLECs failed to cite any evidence in the record supporting that assertion. Since there is no basis for the Commission to conclude that an adjustment is necessary, at this time we do not require Qwest to adjust its cost studies to account for merger savings.

**e. UNE-Combinations ("UNE-C")**

208 Qwest states that it offers UNE combinations that consist of pre-existing UNEs that are combined to serve existing customers, and that it has agreed to offer combinations of UNEs not previously combined to serve new customers. Qwest proposed recurring and nonrecurring charges associated with each of these combinations and claims that

neither WorldCom, nor any other party, dispute the propriety of Qwest's pricing scheme.<sup>204</sup>

209 The Joint CLECs state that they do not object to Qwest's proposals in this area.<sup>205</sup>

210 WorldCom raised concerns during the Part B proceeding that competition in the residential local exchange market will not emerge if the conditions for competitive entry are not already in place before Qwest obtains approval to enter the in-region long distance market. According to WorldCom, a number of factors indicate that a reexamination of the UNE loop rate currently in effect is warranted.<sup>206</sup>

211 Qwest argues that WorldCom's claim that it is unable to enter the Washington residential market due to the unbundled loop price being set too high is based on a flawed financial analysis of the likelihood of earning a profit on residential service. Qwest also asserts that WorldCom's analysis provides no basis for the Commission to reject Qwest's recurring pricing for UNE combination platforms.

212 These arguments have also been raised in this docket's Part D proceeding, which began concurrently with our deliberations on Part B issues. The Commission invited parties to respond to WorldCom's proposal in Part D, and we decided that it was appropriate to hear evidence on the proposal prior to entering our Part B Order.<sup>207</sup> In our Twenty-Sixth Supplemental Order we agreed to review UNE loop rates established in UT-960369, along with other issues, in a new docket.<sup>208</sup> A prehearing conference in that new case, Docket No. UT-023003, was convened and a hearing schedule has been established. As such, we will not address in this order WorldCom's concerns about current conditions for competitive entry in the state of Washington.

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<sup>204</sup> Qwest Brief, at page 34.

<sup>205</sup> Joint CLEC Brief, at para. 74.

<sup>206</sup> WorldCom Brief, at para. 5.

<sup>207</sup> See Twenty-Sixth Supplemental Order; Part D Prehearing Conference Order (Oct. 19, 2001), at para. 14.

<sup>208</sup> In the Twenty-Sixth Supplemental Order we also agreed to review in that new case UNE switching rates and the deaveraged zone rate structure that were established in UT-960369.



***Decision***

213 No party objects to Qwest's proposal to charge a recurring rate for UNE-Cs that is the sum of the recurring rates applicable to the underlying network elements. We find that this rate structure is reasonable for UNE-Cs and approve Qwest's proposal.

**f. Enhanced Extended Loops ("EELs")**

214 An EEL is a combination of an unbundled DS-1 or DS-3 capable loop, multiplexing equipment, and dedicated interoffice transport. Qwest contends that an EEL is a service with rates that are derived from other TELRIC-priced elements and services. According to Qwest, since tariffed rates already exist for direct-trunked transport and multiplexing, when the Commission sets a final rate for DS1 and DS3 capable loops, all of the rate components for an EEL will be established. Qwest argues that there is no need for a separate recurring cost study for EELs, and the company has not presented one.<sup>209</sup>

215 Qwest states that the recurring rates for EELs will depend on the particular configuration that a CLEC chooses.<sup>210</sup> Based on this practical consideration, and to allow the CLECs the flexibility of using different configurations, Qwest proposes that EEL concentration configurations be priced on an individual case basis.<sup>211</sup> That is, the recurring rate will be equal to the TELRIC "sum of the parts" required by the specific EEL configuration. The Joint CLECs do not take issue with Qwest's proposal to charge a recurring rate for EELs that is the sum of the recurring rates applicable to the underlying elements.<sup>212</sup>

***Decision***

216 No party has objected to Qwest's proposal to charge a recurring rate for EELs that is the sum of the recurring UNE rates approved by the Commission for the underlying network elements. We find that this rate structure is reasonable for EELs and we approve Qwest's proposal.

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<sup>209</sup> Exhibit T-1009, at page 17.

<sup>210</sup> Exhibit T-1062, at page 24.

<sup>211</sup> Exhibit T-1001, at page 17.

<sup>212</sup> Joint CLEC Brief, at para. 76.

**g. High Capacity Loops**

217 Qwest argues that the recurring rates it has proposed for high capacity DS-1 and DS-3 loops, as set forth in Exhibit 1061, were developed using the TELRIC methodology and utilized the appropriate Commission-prescribed inputs. Qwest goes on to assert that its rates are appropriate and should be adopted.

218 The Joint CLECs and TRACER urge the Commission to reject Qwest's proposed charges for high capacity loops. They argue that Qwest uses new cost models to develop these charges, and that Qwest provides no evidence that the company's new models are consistent with prior Commission's decisions.

219 The Joint CLECs assert that the Commission determined UNE loop rates for the provisioning of DS-1 and DS-3 loops in UT-960369, where the Commission specifically increased the Hatfield Model loop estimate to reflect the cost of loop structure for DS-1 and DS-3 loops. Furthermore, the Joint CLECs argue that Qwest's witness Mr. Buckley admitted that Qwest's RLCAP Model (utilized by the Commission in setting UNE loop rates in the previous generic costing docket) also generates loop investment for the universe of unbundled loops, including high capacity loops.<sup>213</sup> The Joint CLECs also argue that Qwest's models provide embedded loop costs rather than TELRIC estimates.<sup>214</sup>

220 Qwest responds that the Joint CLECs mischaracterize testimony concerning RLCAP. According to Qwest, its witness Buckley clearly stated that none of the loop models considered by the Commission addressed the equipment required to provision high capacity circuits.<sup>215</sup> Qwest asserts that Mr. Buckley's comment concerning loop investment for "the universe of unbundled loops" referred to voice-grade unbundled loops, and not to high capacity circuits.<sup>216</sup>

221 TRACER agrees with the Joint CLECs that the Commission determined UNE loop rates using cost models that included investment for providing high capacity loops in

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<sup>213</sup> Joint CLEC Brief, at para. 77.

<sup>214</sup> Joint CLEC Brief, at para. 79.

<sup>215</sup> Exhibit T-1050, at page 5.

<sup>216</sup> Qwest Reply Brief, at page 30. Qwest contends that Mr. Buckley's statement must be taken in context with his pre-filed testimony in Exhibit T-1050.

the prior generic case, and that the cost model runs relied upon by this Commission in UT-960369 included DS1 and DS3 loops. “In fact,” TRACER argues, “the Commission specifically ordered that DS1 and DS3 loops be included ‘on a physical line, not a channel equivalent basis.’”<sup>217</sup> TRACER goes on to argue that the models used by the Commission in UT-960369 produced an average loop cost, reflecting the costs of both copper and fiber facilities. TRACER asserts that since high capacity loops were included in that average, it is appropriate to use that loop cost in calculating high capacity loop costs.<sup>218</sup> TRACER also argues that Qwest’s cost studies are flawed in two major respects: 1) the total in plant factors for line cards and hardware are overstated, and 2) the utilization levels assumed by Qwest are too low.<sup>219</sup>

222 Qwest disputes the assertion that the Commission has already set DS-1 and DS-3 loop rates in UT-960369. Qwest argues that this is a misinterpretation of the Commission’s Order, which was not intended to establish a cost for a high capacity loop, but instead was intended to produce a proper allocation of placement and structure costs across all loops in Washington. Qwest argues further that the increase in the UNE loop cost reflected in the Commission’s Eighth Supplemental Order was a correction of the Hatfield model’s overstatement of DS-0 demand, and was in no way intended to estimate DS-1 or DS-3 facility costs.<sup>220</sup> Qwest argues the average loop cost is inappropriate because DS-3 loops can only be provided on all-fiber loops.<sup>221</sup> According to Qwest, the Joint CLECs’ witness Mr. Klick agreed that the Hatfield Model loop estimate used in the prior generic case did not include investment for all-fiber loops.<sup>222</sup>

223 Moreover, Qwest argues that the adjustment on which the Joint CLECs base their analysis applied to the Hatfield model only and was an adjustment concerning the assignment of structure costs to the units within the facility only. Further, that adjustment did not attempt to reflect the cost of building a fiber cable to a customer

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<sup>217</sup> TRACER’s Opening Brief (“TRACER Brief”), at para. 9; *citing* the Commission’s Eighth Supplemental Order in Docket No. UT-960369, para. 199-205.

<sup>218</sup> TRACER Reply Brief, at para 11.

<sup>219</sup> TRACER Brief, at para. 12.

<sup>220</sup> Qwest Brief, at page 36. Qwest argues that by including DS-1s and DS-3s on a channel-equivalent basis, the Hatfield model overstated demand for DS-0s, thereby reducing the cost of DS-0s. The Commission’s adjustment in the Eighth Supplemental Order corrected this flaw in the Hatfield model for the purpose of establishing a rate for unbundled DS-0 loops. *See* Qwest Reply Brief, at page 29.

<sup>221</sup> Qwest Brief, at page 37-38.

<sup>222</sup> *See* TR at 3782.

location and connecting it to equipment that provides to the customer a high capacity circuit.<sup>223</sup>

224 The Joint CLECs assert that the only appropriate method to determine the rates for high capacity loops is to start with the rates established for loop facilities in the prior docket. The Joint CLECs contend that these UNE loop rates may then be adjusted to allow for the provisioning of high capacity services by subtracting the costs for the plug-in electronics used in the prior loop costs analysis and adding an appropriate TELRIC cost for the plug-in electronics required to provide DS-1 and DS-3 loops. The Joint CLECs state that their proposed recurring rates for DS-1 and DS-3 loops were developed on this basis.<sup>224</sup> The Joint CLECs go on to recommend that, should the Commission choose to use the models proposed by Qwest, the Commission should also adopt the Joint CLECs' proposed revisions, which will bring the models closer to TELRIC, incorporating assumptions that reflect efficient practices.<sup>225</sup>

225 TRACER asserts that, while Qwest is correct that none of the loop models considered by the Commission in UT-960369 specifically addressed the equipment required to provision high capacity circuits, the approach advocated by the Joint CLECs rectifies this situation. TRACER proposes that the Commission adopt the approach advocated by the Joint CLECs – start with the UNE loop rates already established by the Commission, subtract the cost of plug-in electronics included in the cost for those loops, and add in appropriate cost for the plug-in electronics appropriate for DS-1 and DS-3 loops. If the Commission chooses instead to rely on Qwest's studies for DS-1 and DS-3, then TRACER urges the Commission to make the corrections recommended by the Joint CLECs.<sup>226</sup>

226 Staff states that it is troubled by Qwest's approach to estimating DS-1 costs and believes that the Joint CLECs have produced credible alternative cost studies that should be considered by the Commission. Staff argues that TELRIC requires the use of both forward-looking technology as well as the most cost-efficient technology. Hence, Staff argues, while SONET may be the most forward-looking technology for

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<sup>223</sup> Qwest Brief, at page 37.

<sup>224</sup> Joint CLEC Brief, at para. 78, *citing* Exhibit T-1310 and ET-1310.

<sup>225</sup> Joint CLEC Brief, at para. 80.

<sup>226</sup> TRACER Brief, at para. 10-11, and TRACER Reply Brief, at para. 12.

DS-1 provisioning, it may not be the most cost-efficient technology to deploy at this time.<sup>227</sup>

227 Qwest responds that its studies only use a SONET fiber mux architecture when there is sufficient demand to make it the least-cost solution.<sup>228</sup> Qwest states that it does not deploy a fiber OC-3-type solution until demand at a given location exceeds 11 DS-1s. Qwest continues to use a copper-based architectures when DS-1 demand is low because it continues to be the least-cost solution.<sup>229</sup>

### *Decision*

228 The Joint CLECs advocate that the Commission base high capacity loop prices on the models that were used in Docket No. UT-960369. We reject that proposal for several reasons. First, none of the models submitted in UT-960369 is in this proceeding's record. Second, the Commission expressed skepticism in the prior generic case about using these models in future proceedings.<sup>230</sup>

229 Third, the models from UT-960369 do not estimate the cost of many UNEs that are at issue in the current proceedings. For example, none of the models submitted in that case calculates the cost of a DS-3 loop.<sup>231</sup> Therefore, the Commission concludes that it is inappropriate to base high capacity loop rates in this case on the models that were used in UT-960369.

230 We also reject the Joint CLECs' contention that Qwest's new model produces embedded costs, because no party produced evidence supporting this assertion. Staff's concern regarding Qwest's approach to estimating DS-1 costs is overcome by Qwest's continued use of copper-based architectures when DS-1 demand does not exceed 11 DS-1s at a given location.

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<sup>227</sup> Staff Brief, at page 9-10.

<sup>228</sup> Qwest reply Brief, at page 31, footnote 30.

<sup>229</sup> See T-1009, at page 28-29.

<sup>230</sup> "Based upon the evidence presented in this case, we conclude that none of the current versions of the models should be adopted for use in future proceedings. All of the models are going through an evolutionary process. Consequently, it would serve no purpose to adopt versions of the models presented in this proceeding as a Commission "sanctioned" model." Eighth Supplemental Order, UT-960369, at para. 35.

<sup>231</sup> TR at 3887-3888.

**h. SUB-LOOPS**

- 231 Qwest proposes prices for sub-loops that are geographically deaveraged using the same zones that the Commission established for unbundled loops. Qwest's rates are derived by multiplying existing UNE loop rates by the percentage of feeder and distribution/drop investment per zone as calculated by Qwest. Qwest states that the other parties do not contest Qwest's methodology to establish sub-loop rates.
- 232 Regarding Qwest's proposed sub-loop estimates, Staff is concerned by the lack of variation between density zones in the estimates of feeder-distribution costs. Staff expects, on a conceptual level, that the ratio of feeder and distribution should be closer together in dense urban areas, and that the amount of distribution investment should increase relative to feeder investment in less dense rural areas.
- 233 Staff states that its estimates (developed using the HM3.1 cost model and following the Commission's prior decisions regarding inputs and other adjustments) show that the ratio of feeder to distribution is approximately 40-60% in dense urban areas (zone 1), with the percentage of distribution steadily increasing to a 28-72% split in the least dense area (zone 5). Staff recommends that the Commission adopt the feeder/distribution ratio estimates developed by Staff as inputs to Qwest's model in place of those developed by the company.<sup>232</sup>
- 234 Qwest asserts that there are at least two flaws in Staff's assumption that loops are shorter in areas of high population density: 1) It is wrong to make the blanket assumption that loops within the more densely populated areas of Washington are short or that loops in less densely populated areas are long, because zones in Washington are based on loop cost by wire center, not loop length; and 2) within each zone in Washington, there is significant variation in density and loop length. Because each of the five zones has a mix of loop lengths and population densities, it is incorrect to assume that Zone 1 will have a higher percentage of feeder investment than other zones. Qwest goes on to assert that for these reasons it has found little variation in the relationship between feeder and distribution across the five zones, and that the ratios of approximately 27% for feeder and 73% for distribution are appropriate for all zones.<sup>233</sup>

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<sup>232</sup> Staff Brief, at page 10.

235 The Joint CLECs state that the Commission developed loop rates in the prior cost docket using results from three different cost models, while in this proceeding, Qwest proposes to use only its RLCAP model in developing sub-loop element rates. The Joint CLECs object and argue that the only appropriate method for establishing sub-loop rates is to use the compliance runs relied upon by the Commission in establishing de-averaged loop rates. Accordingly, the Joint CLECs argue that the Commission should use its prior determinations to develop sub-loop rates in order to ensure consistency among the rates established in both dockets.<sup>234</sup>

236 Qwest also notes that the Commission used RLCAP, the HAI model, and the BCPM to establish loop rates in UT-960369, but the company states that, to the best of its knowledge, the Commission developed its own “compliance runs” to generate deaveraged loop costs. Qwest argues that because it cannot determine whether the compliance runs generated by Staff are the same as those relied on by the Commission, those runs should not be used to establish sub-loop rates.<sup>235</sup> According to Qwest, its reliance on RLCAP to establish deaveraged sub-loop rates is a reasonable approach, since RLCAP is one of the models that the Commission relied upon to establish loop rates.<sup>236</sup>

### *Decision*

237 The Commission disagrees with Qwest’s assertion that there is little or no variation in the ratio of feeder and distribution investment among density zones. We find Staff’s argument persuasive that the ratio of feeder and distribution investment should be closer to 50/50 in dense urban areas. Therefore, Qwest must utilize the feeder and distribution ratios proposed by Staff, at Table 1 of Exhibit T-1350, when calculating sub-loop element rates.

238 Qwest also developed a separate rate for DS-1 capable feeder based on the likelihood that CLECs may desire to purchase larger increments of feeder capacity. The DS-1 capable feeder provides a transmission path from a network interface in a Qwest

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<sup>233</sup> Qwest Brief, at page 39-40.

<sup>234</sup> Joint CLEC Brief, at para. 81.

<sup>235</sup> Exhibit T-1009, at page 22.

<sup>236</sup> Qwest Reply Brief, at page 32.

serving wire center to the field connection point.<sup>237</sup> No one objected, and we approve Qwest's proposed rate for DS-1 capable feeder.

**i. UDIT and EUDIT<sup>238</sup>**

- 239 Qwest proposes two separate rate elements for unbundled dedicated transport. One element consists of the transport between the CLEC wire center and Qwest's wire center (EUDIT). The other element consists of the transport between Qwest wire centers (UDIT). This proceeding involves Qwest's UDIT offerings in the Optical Carrier, levels 3 and 12 (respectively, "OC-3" and "OC-12") bandwidths.<sup>239</sup>
- 240 Qwest proposes two types of UDIT recurring charges: variable and fixed. The variable, or "distance-sensitive," rates depend on the mileage between the originating and terminating central offices, and the fixed, or "flat-rate," bandwidth-specific rates depend upon bands that a CLEC requests. Unlike the UDIT, however, Qwest proposes recurring charges for EUDITs that are flat-rated, bandwidth-specific only; there are no distance-sensitive rates for EUDITs.<sup>240</sup>
- 241 WorldCom maintains that there is no cost justification for charging EUDIT on a flat-rate basis while charging UDIT on the basis of distance-sensitive charges, because the facilities are both functionally equivalent. WorldCom suggests that all forms of dedicated interoffice transport should have a single rate structure based on distance.<sup>241</sup>
- 242 Qwest argues that different facilities are used for EUDIT and UDIT. Therefore, these products have different cost structures making it necessary and appropriate to have different prices for these products. UDIT is essentially the same as direct trunk transport ("DTT"). It consists of terminating and multiplexing equipment, fiber cable, conduit, and intermediate wire center equipment. EUDIT consists of outside plant facilities and is closely analogous to entrance facilities.<sup>242</sup>

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<sup>237</sup> Exhibit T-1001 at 12; Ex. C-1004.

<sup>238</sup> Unbundled Dedicated Interoffice Transport ("UDIT") and Extended Unbundled Dedicated Interoffice Transport ("E-UDIT").

<sup>239</sup> Qwest Brief, at page 40.

<sup>240</sup> Qwest Brief, at page 40.

<sup>241</sup> Corrected Part B Post-Hearing Brief of WorldCom, Inc. ("WorldCom Brief"), at para. 13.

<sup>242</sup> Exhibit T-1001 at 16.



243 Qwest believes that the flat-rated EUDIT pricing approach is consistent with the Commission's flat-rated pricing for the analogous entrance facility product.<sup>243</sup> By contrast, Qwest's cost study for UDIT produces a distance-sensitive price, which is consistent with the Commission's distance-sensitive pricing for entrance facilities. According to Qwest, the distance-sensitive pricing for UDIT and entrance facilities reflects the fact that both of these products rely on distance-sensitive components.<sup>244</sup>

### *Decision*

244 The Commission previously addressed policy issues regarding Qwest's distinction between UDIT and EUDIT in the Commission's 271/SGAT case.<sup>245</sup> We noted that parties had raised both policy and cost issues in Docket No. UT-003013, and we concluded that a more comprehensive record regarding the policy issues was made in the 271/SGAT case than in this docket. Accordingly, we proceeded to resolve the policy issues in that other case.<sup>246</sup>

245 As the Commission's Initial Order in the 271/SGAT case recognized, "[T]he only apparent difference between the UDIT and the EUDIT justifying different charges is the owner of the wire center at the far end of the transport. While Qwest has likened the EUDIT to an entrance facility, the record does not show that the EUDIT is sufficiently distinct from the UDIT."<sup>247</sup>

246 Subsequently, we agreed in the Twenty-Fourth Supplemental Order that Qwest should eliminate the technical distinction between UDIT and EUDIT. Additionally, we found that the pricing of the elements would reflect no distinction between them, and that the policy decisions made in the 271/SGAT case would be followed in the determination of pricing for these elements in UT-003013.<sup>248</sup> Consistent with that decision we now order Qwest to eliminate the pricing distinction between UDIT and EUDIT and to apply to both services recurring charges of two types: variable and

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<sup>243</sup> See *Qwest's Tariff WN U-42 Section 3.1A. and 3.1B.*

<sup>244</sup> Qwest Reply Brief, at page 32.

<sup>245</sup> *In the Matter of The Investigation Into U S West Communications, Inc.'s Compliance With Section 271 of the Telecommunications Act of 1996*, Docket No. UT-003022 and *Statement of Generally Available Terms Pursuant to Section 252(f) of the Telecommunications Act of 1996*, Docket No. UT-003040 (the "271/SGAT case").

<sup>246</sup> Twenty-Fourth Supplemental Order, 271/SGAT case (December 20, 2001), at para. 39-40.

<sup>247</sup> Thirteenth Supplemental Order; Initial Order (Workshop Three), 271/SGAT case (July 24, 2001), at para. 148.

<sup>248</sup> Twenty-Fourth Supplemental Order, 271/SGAT case, at para. 40.

fixed. The variable rates should be based on the mileage between the originating and terminating central offices, and the fixed rate should be based on the bandwidth requested by the CLEC

247 Qwest has argued in this proceeding that the per-mile cost of ILEC-to-CLEC transport may differ from the per-mile cost of ILEC-to-ILEC transport.<sup>249</sup> Qwest may request review of its UDIT and EUDIT pricing to reflect asserted differences in the transport costs of provisioning these elements by making a new cost filing in Docket No. UT-023003.

**j. Multiplexing**

248 Qwest states that the Commission should adopt the recurring rates that Qwest has proposed for multiplexing elements because they are TELRIC-based, reasonable, and utilize the Commission's prescribed inputs from its prior orders.<sup>250</sup> Qwest avers that no party has challenged these proposed rates.

***Decision***

249 The Commission concurs with Qwest that this issue is not in dispute. Because the recurring rates Qwest proposed for multiplexing are reasonable and utilize Commission-prescribed inputs, we approve Qwest's multiplexing rates as set forth in Exhibit C-1006.

**k. Unbundled Dark Fiber ("UDF")**

250 The Joint CLECs argue that the recurring charges for dark fiber should be no higher than the charges for a two-wire analog loop when the fiber is used as a loop, and no higher than the charge for a DS-1 transport facility when the fiber will be used as transport.<sup>251</sup>

251 Qwest argues that the record does not support the Joint CLECs pricing proposal for UDF. Furthermore, Qwest believes that its cost study for this network element

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<sup>249</sup> TR at 2121.

<sup>250</sup> Qwest Brief, at page 41; *see* Exh. T-1001 at page 16.

<sup>251</sup> Joint CLEC Brief, at para. 84.

demonstrates that dark fiber is a unique network element that has different physical and cost characteristics than unbundled loops and transports.

252 According to Qwest, its calculation of dark fiber recurring costs is TELRIC-based and relies upon the appropriate Commission-prescribed inputs, using achievable fiber utilization rates in a replacement network.<sup>252</sup> Qwest has agreed to use the Washington-specific model run for recurring costs for UDF. Qwest maintains that its calculation of dark fiber recurring costs is TELRIC-based and relies upon the appropriate Commission-prescribed inputs<sup>253</sup> Staff states that Qwest's agreement to use Washington-specific data for dark fiber satisfies its concerns in this area.<sup>254</sup>

### *Decision*

253 The Joint CLECs essentially argue that the unbundled dark fiber rates set in this proceeding should be consistent with the Commission findings in UT-960369. They argue that Qwest's proposed recurring rate of \$98.64 for an unbundled dark fiber loop is unreasonable when compared to the statewide average UNE-loop rate of \$18.16. However, the Commission does not find this comparison to be germane because the capacity of these elements is significantly different. We find that the UDF rates based on Qwest's dark fiber study are reasonable, and we approve the UDF rates proposed by Qwest in Exhibit C-1040.

### **I. ON PREMISE WIRING**

254 Qwest recognizes that access to a loop includes access to inside wire that it owns, and proposes a separate rate for building cable at established field connection points on a per-pair basis (\$0.91 per pair, per month). According to Qwest, this rate is just and reasonable.<sup>255</sup> Qwest contends that there is no need to deaverage the rate because building cable costs do not vary geographically.<sup>256</sup> Qwest's building cable study – Exhibit C-1017 – assumes that CLECs will place their own common terminals or

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<sup>252</sup> See Exhibit T-1009 at 37.

<sup>253</sup> Qwest Brief, at page 41.

<sup>254</sup> Staff Brief, at page 11.

<sup>255</sup> Qwest Reply Brief, at page 34.

<sup>256</sup> Exhibit T-1009, at page 16.

cross-connect facilities, at their own expense, to jumper to Qwest's terminal and building cable.<sup>257</sup>

255 The Joint CLECs argue that it is inappropriate to establish recurring charges without first determining the conditions under which an element will be offered. Whereas parties have not yet addressed terms and conditions for access to on-premises wiring, the Joint CLECs argue that the Commission's decision regarding the recurring price for access to on-premises wiring should be deferred to another proceeding.<sup>258</sup>

### *Decision*

256 We recognize the need to establish recurring rates for on premise wiring. Contrary to the Joint CLEC's claims, Qwest's building cable study was admitted into the record on March 26, 2001.<sup>259</sup> Based on a review of Qwest's building cable study we find that Qwest's proposal of \$0.91 per pair per month is reasonable.<sup>260</sup> Parties may request that the Commission revisit this issue to ensure that the recurring rates for on-premise wiring comport with terms and conditions established in the 271/SGAT case, as the need arises.

## **6. VERIZON'S NONRECURRING COSTS AND STUDY METHODOLOGY**

### *Background*

257 The Joint CLECs raise concerns regarding the degree to which parties are able to examine and validate Verizon's nonrecurring cost study methodology, and the extent to which Verizon manually processes service orders. The majority of other objections to Verizon's NRC study relate to the work time estimates used as inputs in the cost studies.<sup>261</sup>

258 Verizon proposes two types of nonrecurring charges: an ordering charge and a provisioning charge. The ordering charge, as its name suggests, reflects the costs

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<sup>257</sup> Qwest Brief, at page 42.

<sup>258</sup> Joint CLEC Brief, at para 85.

<sup>259</sup> TR 1814.

<sup>260</sup> See Exhibit C-1017.

<sup>261</sup> This should be expected because hourly labor is the most significant cost factor in the study.

incurred when a CLEC orders an unbundled network element (*e.g.*, a two-wire loop) or an activity (*e.g.*, removing bridged taps). The provisioning charge reflects the cost of provisioning that order or activity (*e.g.*, the cost of dispatching a technician to the field to remove bridged taps).<sup>262</sup> Verizon presented several nonrecurring cost studies in this proceeding to support its proposed nonrecurring charges.

**a. Verizon’s Nonrecurring Cost (“NRC”) Study Methodology**

259 Verizon filed new NRC studies in this proceeding. The Joint CLECs argue that Verizon’s NRC studies are a “black box” that prevents parties from analyzing Verizon’s methodology. Verizon disagrees, responding that the basis for nonrecurring cost studies is well known and that other aspects of its studies are well explained by the studies and in testimony.<sup>263</sup> To contradict the Joint CLEC’s claim, Verizon refers to Commission Staff’s ability to broadly critique its NRC studies.

260 The Commission has long taken exception to cost models that obfuscate how costs are derived or how spreadsheet cells are linked together. To whatever extent Verizon’s NRC studies may or may not be a “black box,” there certainly is no mystery regarding the methodology for calculating nonrecurring costs.<sup>264</sup> Verizon’s evidence describes how work times were developed. We note, along with Verizon, that Commission Staff was able to identify and critique steps taken by Verizon in its studies to determine nonrecurring costs.<sup>265</sup> We recognize that parties dispute the validity of certain inputs, but we do not find fault with Verizon regarding the openness of the company’s NRC studies.

261 The Joint CLECs also claim that Verizon’s recovery of costs to modify its OSS precludes the need to manually process orders. Verizon responds that there is no inconsistency between charges for OSS modifications that have been made and the company’s proposed NRC recovery. We agree with Verizon that there is no evidence that 100% flow-through technology is available today. Thus, as long as CLECs are entitled to submit manual orders (*i.e.*, via fax) to Verizon, Verizon is also entitled to cost adjustments that reflect the probability that manual processing will occur. Verizon is entitled to rely on its NRC studies as filed, subject to the adjustments

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<sup>262</sup> Exhibit T-1190, at page 12-13.

<sup>263</sup> Verizon NW Reply Brief, at para. 29-30.

<sup>264</sup> Activity Time x Probability of Occurrence x Labor Rate = Nonrecurring Cost.

<sup>265</sup> Verizon NW Reply Brief, at para. 30.

identified below. However, as Verizon petitions the Commission to recover additional costs that are incurred to increase OSS flow-through capabilities, the company must also submit revised NRC studies that reflect increases in mechanized efficiency.

**b. Verizon NW's Order Entry Time Study**

- 262 Verizon undertook a study in conjunction with Arthur Anderson to determine work time estimates to process Access Service Requests (“ASRs”) at the company’s National Access Contact Center (“NACC”).<sup>266</sup> The Arthur Anderson study began by observing a small group of employees and recording the time it took them to complete each task they performed over a two-week period.<sup>267</sup>
- 263 Verizon argues that a straightforward time and motion study is not possible because NACC service representatives do not process orders on a continuous, uninterrupted basis. Different representatives in different departments perform specialized tasks that are required on each order. Verizon argues that the sample of times observed – or the raw data in the Arthur Anderson study – does not provide an adequate basis on which to estimate how much times it takes on average to perform a certain task, because the total time for all of the activities performed must equal the total time shown on its employees’ time cards.
- 264 To address this purported discrepancy, Verizon calculates a relative weight for each type of order, based on the observed work times per order and an employee’s total observed work time. Verizon then allocates all of the hours reported on the employee’s time card according to the relative weight of all individual activities.<sup>268</sup>

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<sup>266</sup> Verizon NW Reply Brief, at para. 42. Only dark fiber, EELs, dedicated transport and SS7 are ordered via ASRs submitted to the NACC. Other activities are submitted via Local Service Requests (“LSRs”).

<sup>267</sup> Reply Post-Hearing Brief of Verizon Northwest, Inc. (“Verizon Reply Brief”), at Para. 38. Verizon claims it did not conduct a time and motion study on all employees in the NACC because it did not believe that it was practical or necessary to observe every employee for a given period of time due to the size and amount of activity that occurs at this center.

<sup>268</sup> For example, a Verizon employee is active for a total of 5 hours during an 8-hour shift where 1, 1.5, and 2.5 hours are attributed to order types A, B, and C, respectively. Verizon calculates the relative weight of order type A by dividing the 1 active hour expended on order type A by the 5 active hours expended by the employee for the entire day (1 hour / 5hours = .20 or 20%). In the example, the relative weight for all order types are A=20%, B= 30%, and C=50%. Allocating the entire 8-hour shift according to these weights results in a work time estimate of 1 hour and 36 minutes for order type A, 2

The work time estimates derived from this study are then used as inputs in Verizon's NRC Studies.

265 The Joint CLECs dispute Verizon's approach to adjusting the activity times actually observed in the Order Entry Time Study, and they propose adjustments based on observed times and 100% mechanized processing.<sup>269</sup> Commission Staff also objects to Verizon's adjustment to observed work times.

266 Verizon takes exception to the Joint CLECs' and Staff's reliance on the observed work times, and claims that the work times resulting from Staff's methodology is further flawed because it does not consider the "Probability of Occurrence" factor that is applied to the total minutes per order. According to Verizon, application of the Probability of Occurrence factor produces a more accurate estimate of the time it takes to perform tasks, because it reflects the additional amount of time that is expended based on the number of times that an order is "touched."

267 We agree with Staff and the Joint CLECs that the work time estimates used by Verizon in its NRC studies are unreasonably high and not well supported by the record. Verizon's proposed values would require us to accept a number of questionable assumptions on faith alone. First, while Verizon characterizes the Arthur Anderson study as statistically valid, it appears that the study was not submitted as evidence in this proceeding. Nor did Verizon present any testimony of Arthur Anderson personnel. Verizon attempts to support the Arthur Anderson study in its Reply Brief, but this argument is based on a few pages of testimony by the company's in-house NRC expert, and not on the study itself.<sup>270</sup> That does not constitute adequate documentation in support of Verizon's proposed methodology.

268 Second, the validity of Verizon's proposed values are questionable because the company fails to adequately explain why it was necessary to gross up the work times observed by Arthur Anderson by the magnitudes applied. A sample mean is often an unbiased estimator of a population mean. However, without any credible support, Verizon states that "the sample of times observed - or the raw data - does not provide an adequate basis on which to estimate how much time it takes, on average, to

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hours and 24 minutes for order type B, and 4 hours and 0 minutes for order type C. *See* Exhibit T-1166, at page 4.

<sup>269</sup> Joint CLEC Brief, at para. 91.

<sup>270</sup> Exhibit T-1166, at pages 3-4.

perform a certain task.”<sup>271</sup> While the Arthur Anderson study is an improvement over the opinions presented by subject matter experts, the results do not make sense. Verizon claims, in essence, that the figures derived from the Arthur Anderson study are statistically valid, but the sample results themselves are unreliable.

269 Lastly, we have concerns about the overall efficiency of Verizon’s operations. It appears that Verizon has built and staffed facilities for a larger number of orders than have materialized. Also, as Staff points out, Verizon’s computer systems are not fully compatible. This forces Verizon to re-key customer information in various systems rather than allowing the company simply to transfer data from one system to another. Verizon should not be compensated for these inefficiencies.

270 As stated above, Verizon’s time estimates are unreasonably high. Conversely, the Joint CLECs estimates are unreasonably low. The Joint CLEC proposal assumes fully automated processes and ignores the fact that even the most efficient employee is not active 100% of the time.<sup>272</sup> Thus, we reject the Joint CLECs’ recommendations.<sup>273</sup> These findings lead us to our review of Staff’s proposed adjustments.

271 Staff criticizes Verizon’s order-processing, and argues that the company should not be allowed to include excessive inefficiencies in its calculation of forward-looking costs. Staff recommends that the Commission make the following specific adjustments to Verizon’s nonrecurring cost studies:

- Reduce processing times for “Production Order Entry” (Connection and Disconnection);
- Decrease time estimates for “Error Correction” and “Jeopardies” to zero;
- Modify the time estimate for “Meet Point”; and
- Adjust time estimates for processing orders downward.

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<sup>271</sup> Verizon NW Reply Brief, at para. 41.

<sup>272</sup> For example, it is reasonable to assume that employees will spend portions of their workday being trained, gathering supplies, and taking the occasional break.

<sup>273</sup> The Joint CLECs’ recommendations were presented in Exhibit C-1318.



- 272 According to Commission Staff, the overall effect of these adjustments would be a reduction to Verizon's nonrecurring costs for various activities, which in turn reduce nonrecurring rates.<sup>274</sup>
- 273 Staff contends that Verizon's order processing time estimates for "Production Order Entry" were inflated. Staff proposes that Verizon's actual time estimates per order be multiplied by the labor rate to derive costs. As an alternative, Staff recommends that the Commission adopt the same six-minute time estimate that the Commission approved for GTE NW in the Seventeenth Supplemental Order in UT-960369.<sup>275</sup>
- 274 Verizon argues that the six-minute interval approved in UT-960369 pertained to local service requests ("LSRs"), which are different from the ASRs that Staff evaluates in this proceeding. Further, Verizon contends that the work times used in the cost studies submitted in earlier proceedings were overly speculative because the company was in the very early stages of developing ordering processes. Since that time, Verizon has conducted work time studies of actual wholesale LSRs being completed that are more reliable. We agree with Verizon that there is an insufficient basis to adopt the work time estimates that were previously approved.
- 275 Verizon's NRC studies indicate that "Error Correction" and "Jeopardies" tasks are necessary to complete CLEC orders in some cases, and there is no contradictory evidence in the record. Therefore, we reject Staff's proposal that time estimates for "Error Correction" and "Jeopardies" be reduced to zero.
- 276 In response to the criticism by Staff and the Joint CLECs, Verizon contends that it reevaluated whether the "Meet Point" item is appropriately included in its ordering costs.<sup>276</sup> According to Verizon, the company determined that it was not in fact appropriate to retain the meet-point item in the ordering cost for EEL migration, the item was removed from its related cost study, and the Company modified its costs – and the corresponding rate – as shown in Attachment B to Verizon's Opening Brief. We agree with Verizon that the meet-point item is appropriate, and we approve this item for inclusion in Verizon's ordering costs, except in the ordering cost for EEL migration.

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<sup>274</sup> Exhibit T-1360, at page 6.

<sup>275</sup> *Id.*

<sup>276</sup> Verizon Reply Brief, at para. 46.

277 We agree with Staff that Verizon's actual observed work times for various activities should form the basis for its costs and charges, but, like the Joint CLECs, Staff makes no allowance for tasks that are not performed and observed as a continuous activity. Having found that Verizon's proposed work time gross-ups are unreasonable and having rejected the various specific adjustments proposed by Staff and the Joint CLECs, and taking all factors into consideration, we find that a just and reasonable adjustment to Verizon's actual observed work times is an increase of 20%. Verizon must make compliance filings reporting revised charges that are based on the company's actual observed work times plus 20%.

**c. Fixed/Shared Costs -- NOMC**

***Background***

278 The National Open Market Center ("NOMC") provides Verizon with a single location for Verizon customer service representatives to receive and process CLEC orders. Verizon classifies NOMC costs as nonrecurring in nature because they are attributable directly to the nonrecurring activity of receiving and processing wholesale orders. In Part A of this proceeding, Verizon proposed that a NOMC rate to be applied to line sharing. The application of the NOMC rate to other orders is an issue for this Part B proceeding.<sup>277</sup>

279 Verizon allocates a pro rata share of forecasted NOMC shared/fixed costs to each order processed at the NOMC. In Part A, Thirteenth Supplemental Order, the Commission approved Verizon's proposed charge of \$4.92 per LSR for the recovery of the NOMC fixed/shared costs. Verizon includes a revised NOMC shared/fixed rate of \$4.40 in the ordering NRCs.<sup>278</sup> However, as noted by the Company in response to Bench Request 33, Verizon mistakenly included the NOMC cost loader in its ICM Model in Part B. Subsequently, in recognition of this oversight, Verizon submitted revised wholesale UNE rates in response to Bench Request 33 after the Part B hearings closed.<sup>279</sup> Verizon contends that the impact of removing the NOMC fixed/shared costs from its ICM Model is minimal.

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<sup>277</sup> TR at 1537.

<sup>278</sup> Verizon Brief, para. 46-47. See Exhibit E-1190, at page 4.

<sup>279</sup> See Verizon Response to Bench Request Nos. 32-33, page 3 of 3, Verizon Supplemental Response to Bench Request No. 33, Revised Attachment 33A.

*Discussion and Decision*

280 Staff agrees with Verizon's characterization of the costs of the NOMC as nonrecurring costs, but does not agree that these costs are reasonable estimates, because Verizon's ICM cost model incorporates categories of costs that were previously included in common costs. Staff contends that it is impossible to determine whether Verizon has properly identified all the changes created by changing cost models. According to Staff, Verizon has failed to differentiate the fixed costs attributed to the NOMC charge from general expenses incurred and incorporated in its ICM, which are recovered through shared cost allocation on a total company basis.<sup>280</sup> Further, Staff argues that it has not had an opportunity to conduct discovery or cross-examine Verizon witnesses regarding the company's response to BR-33, and that Verizon should not be allowed unilaterally to recalculate these costs and rates. Staff recommends that the Commission eliminate Verizon's NOMC charge per LSR.

281 The Joint CLECs share Staff's concerns and echo Staff's recommendation that the Commission reject Verizon's proposed NOMC charge.<sup>281</sup>

282 As pointed out at footnote 131 of the Commission's 13th Supplemental Order in this proceeding, no party in Part A raised a specific challenge to the proposed NOMC rate. We view the issue at hand to be whether Verizon has treated the NOMC expense in a manner consistent with the Commission's Part A Order. Further, the objecting parties do not explain why the NOMC charge should not be applied to the class of UNE orders, rather than just to line sharing orders.

283 We agree that Verizon should not be allowed to over-recover by accounting for the same costs twice. However, we do not agree that the NOMC charge per LSR should be eliminated. We find that it makes more sense to retain the NOMC charge and lower the ICM cost estimates, by eliminating the NOMC expenses from the model. This option is more appropriate because it recovers NOMC expenses from CLECs that place NOMC orders, rather than applying NOMC expenses as a loading factor to all of the cost elements developed by ICM. Verizon must adjust its wholesale UNE

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<sup>280</sup> Staff Reply Brief, page 7-8.

<sup>281</sup> Joint CLEC Brief, at para. 93.

rates as set forth in Verizon's Supplemental response to BR-33, Revised Attachment 33.

**d. DARK FIBER**

284 Dark fiber is optical fiber that has not been activated through connection to the electronics that "light" it, thereby rendering it capable of carrying communications services. The attendant electronics determine the capacity of the fiber once lit.

285 Verizon proposes that CLECs must submit an ASR to determine whether there is any dark fiber available on the route requested prior to submitting an order. This is also referred to as a service inquiry. According to Verizon, plant records for dark fiber are not mechanized. Therefore, a manual effort is required to determine whether any unused fiber capacity exists. If available, a CLEC may then submit a firm order through the ASR process. Verizon states that its proposed costs are all based on the same process that the company uses to determine whether dark fiber is available on its network for its own use.<sup>282</sup>

286 Both Staff and the Joint CLECs recommend that the Commission adopt their respective adjustments to Verizon's NRC study. These adjustments were rejected in our discussion regarding Verizon's NRC Study Methodology.

287 The Joint CLECs also contend that Verizon's proposed nonrecurring Service Inquiry charge is unreasonable. According to the Joint CLECs, it is not credible that Verizon does not maintain records of its available dark fiber. Verizon reaffirms that the company does maintain records, and that its proposed charge is merely intended to recover the costs incurred to conduct a review.

***Decision***

288 According to the record, the Dark Fiber Service Inquiry charge is intended to compensate Verizon for comparing multiple records in separate systems.<sup>283</sup> Although Verizon's records and computer systems are not as compatible as one would expect, we do not consider Verizon's processes here to be completely inefficient. Computer

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<sup>282</sup> Verizon Reply Brief, at para.50.

<sup>283</sup> See TR 2527-28, 2537.

systems cannot always be seamlessly interconnected, and in this instance, changes to Verizon's systems would consequently be reflected in increased OSS costs and recovery. Verizon must adjust its rates consistent with our decision that labor times must be based on the company's actual observed work times plus 20%.

**e. SUB-LOOP UNBUNDLING**

289 The FCC defines sub-loops as portions of the loop that can be accessed at terminals in the incumbent's outside plant. An accessible terminal is a point on the loop where technicians can access the wire or fiber within the cable without removing a splice case. These would include any technically feasible point near a customer's premises, such as the pole or pedestal, the NID, or the "minimum point of entry."

290 Another point of access would be the feeder distribution interface ("FDI"), which is where the trunk line, or "feeder," leading back to the central office, and the "distribution" plant, branching out to the subscribers, meet, and "interface." The FDI might be located in the utility room in a multi-dwelling unit, in a remote terminal, or in a controlled environment vault. A third point of access is the main distribution frame in the incumbent's central office.

291 Verizon states that it will incur costs for ordering, provisioning, and central office and field installation activities associated with CLEC sub-loop unbundling requests.<sup>284</sup> To determine the costs for sub-loop ordering, Verizon relies upon the exchange-basic ordering process as a proxy because the company claims that the two processes are similar. Verizon claims that its provisioning cost to provide sub-loops depends on the type of sub-loop requested and the number of "touches" required to process the request. Verizon conducted time and work studies to provide provisioning work times, depending on the type of sub-loop requested.

292 Both Staff and the Joint CLECs recommend that the Commission adopt their respective adjustments to Verizon's NRC study. These adjustments were rejected in our discussion regarding Verizon's NRC Study Methodology.

293 Verizon must adjust its rates consistent with our decision that labor times must be based on the company's actual observed work times plus 20%.

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<sup>284</sup> These costs may be found in Exhibit R-1160, pages 7-WA 14 – 7-WA 15.

**f. Enhanced Extended Loops (“EELs”)**

294 An Enhanced Extended Loop is a combination of an unbundled loop, interoffice dedicated transport, and multiplexing, if required. Verizon states that EELs may be requested as a “new” order or as a “Migration As Is” of an existing special access circuit to a UNE-EEL. For “new” EEL requests, Verizon claims that it incurs costs for ordering, provisioning, and central office and field installation activities. Orders for “new” EELs are processed in the same manner as dark fiber requests. The discussion above regarding the activities and cost determination for dark fiber requests therefore applies equally to “new” EEL requests.

295 For “Migration As Is” of an existing special access circuit, Verizon proposes rates based on a cost study that includes costs for “new” and “disconnect” EELs. These ordering costs were used along with two new ordering activities: 1) Mass Order Generator (“MOG”) Template; and 2) Termination Liability Calculation.<sup>285</sup>

**i. Mass Order Generator Charges**

296 Staff claims that Verizon does not properly explain its double use of the “MOG” cost. Staff recommends that the Commission require Verizon to incorporate Staff’s proposed adjustments, to treat this type of order as a change order, and include the MOG entry cost only once.

297 Verizon contends that two mass order generator charges are appropriate when fifty or more circuits are ordered because these orders require “MOG Template” and “MOG Order Entry” activities. “MOG Template” activity reflects the amount of time it takes for the Verizon representative to create a new and disconnect MOG template to allow the processing of multiple orders received from one CLEC. “MOG Order Entry” reflects the time it takes the Verizon representative to place the information regarding the individual orders into the MOG template. Verizon agrees with Staff that the probability-of-occurrence factor for these charges should be adjusted downward. However, Verizon has not yet quantified the appropriate adjustment.<sup>286</sup>

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285 See Verizon Brief, at para. 52-53. Provisioning costs for EEL Migration were developed based on the administrative activities necessary to facilitate the record keeping associated with EELs.

286 Verizon Reply Brief, at para. 54.

298 We find that Verizon’s explanation makes sense, and that two separate charges are appropriate. However, in addition to eliminating its “meet point” charge as discussed above, Verizon must make a compliance filing quantifying the appropriate adjustment before the Commission will approve specific rates.

**ii. “Migration As Is” Charges**

299 Verizon requires that as part of a “Migration As Is,” an entirely new ASR form be submitted and processed – including a disconnect – when the CLEC is requesting only to change the billing from a tariffed service to a UNE combination. The Joint CLECs contend that the separate study used for “Migration As Is” of EELs is flawed because Verizon improperly treats the EEL conversion as both a new order and a disconnect order even though the facilities remain in place. The Joint CLECs propose that Verizon be authorized to charge no more than Qwest proposes to charge for converting special access or private line circuits to EELs.<sup>287</sup> Staff likewise objects to Verizon’s proposed use of its ordering cost for new and disconnect orders, instead of the lower change order cost.

300 Verizon contends that company systems and protocols require both disconnect and new order steps to accurately record the necessary special access early-termination information relating to the establishment of the new UNE combination. Verizon contends that each step is required for Verizon to properly track and record necessary information for its own network. According to Verizon, The change order rate is intended to recovers costs associated with changing an item on an existing account, such as a billing address change. Verizon argues that application of that charge would not allow the company to fully recover its costs when CLECs migrate special access circuits to UNEs.

301 Verizon’s argument that the “Migration As Is” task should be treated more like a disconnection of one service and the initiation of another than like a billing address change is unconvincing. Where the facility remains in place there is no physical disconnection, and it is inappropriate to treat it as such in company records. We find, on an interim basis, that it is most appropriate that Verizon charge no more than

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<sup>287</sup> According to the Joint CLECs, Qwest proposes to charge the same rate for converting EELs as the customer transfer charge for UNE-P private line. See Joint CLEC Brief, at para. 99.

Qwest's approved rate for converting special access or private line circuits to an EEL. Verizon may file a more appropriate cost study in the Part E Proceeding.

**iii. Charge to Calculate Termination Liability**

302 The Joint CLECs oppose inclusion of costs incurred to calculate termination liability charges – especially where no termination liability applies – because Verizon already recovers these costs as part of its tariffs.<sup>288</sup>

303 The record reflects that charging CLECs for this activity would be discriminatory and could result in Verizon recovering the cost of calculating termination charges twice.<sup>289</sup> We find that the charge for calculating contract termination charges should be eliminated.

**iv. Work Time Adjustments**

304 Both Staff and the Joint CLECs recommend that the Commission adopt their respective adjustments to Verizon's NRC study. These adjustments were rejected in our discussion regarding Verizon's NRC Study Methodology.

305 Verizon must adjust its rates consistent with our decision that labor times must be based on the company's actual observed work times plus 20%.

**g. UNE-P**

306 A combination of individual UNEs used to provide POTS is often referred to as the "UNE-Platform" or "UNE-P." Verizon claims that in providing the UNE-P it will incur costs for ordering, provisioning, central office, and field installation activities. UNE-P ordering, performed at the NOMC through the LSR process, applies when CLECs request new service or conversion of existing services, retail or resale, to UNE-P. Provisioning costs are based on the number of "touches" required to process

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<sup>288</sup> Joint CLEC Brief, at para. 98.

<sup>289</sup> See TR 2572-76. Verizon proposes to charge customers for figuring out the termination fee on an existing contract. The Joint CLECs pointed out that there was no equivalent charge when a retail customer requested termination of a contract.



a CLEC's request. For services that are in place and are being "migrated" to UNE-P, central office or field installation activities are not required.<sup>290</sup>

307 Both Staff and the Joint CLECs recommend that the Commission adopt their respective adjustments to Verizon's NRC study. These adjustments were rejected in our discussion regarding Verizon's NRC Study Methodology.

308 Verizon must adjust its rates consistent with our decision that labor times must be based on the company's actual observed work times plus 20%.

**h. DEDICATED TRANSPORT AND SIGNALING SYSTEM 7 ("SS7")**

309 In the Local Competition Order, the FCC defined dedicated interoffice transmission facilities as "incumbent LEC transmission facilities dedicated to a particular customer or carrier that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers." The FCC further concluded that incumbent LECs must provide all technically feasible capacity-related services such as DS1 to DS3 and OC3 to OC96 services.

310 Signaling System 7 is the international standard network protocol currently used to transmit signaling information over Common Channel Signaling networks. SS7 performs three fundamental functions when a call is placed. First, it establishes transmission paths over which telephone calls are carried (known as call set-up). The SS7 network also directs the closure of those transmission paths after a telephone call has ended. Second, the SS7 network obtains information from remote databases such as information from the toll-free database that identifies the IXC designated by a toll-free service subscriber. Finally, an SS7 network transmits the information and instructions necessary to provide certain custom local area signaling services (also known as "CLASS"), such as automatic call back.

311 Verizon claims it will incur costs for ordering, provisioning, central office, and field installation activities associated with CLEC requests for dedicated transport and SS7. Verizon states that it has provisioned dedicated transport and SS7 for interexchange carriers ("IXCs") through the National Access Contact Center and the Business

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<sup>290</sup> Verizon Brief, at para. 55.

Response Provisioning Centers (“BRPCs”) for many years, and this experience provides the basis for Verizon’s proposed costs in this docket. According to Verizon, both the NACC ordering and the BRPC provisioning follow the same processes as previously described for dark fiber.<sup>291</sup>

312 The Joint CLECs recommend that the Commission adopt its proposed adjustments to Verizon’s NRC study. These adjustments were rejected in our discussion regarding Verizon’s NRC Study Methodology.

313 Verizon must adjust its rates consistent with our decision that labor times must be based on the company’s actual observed work times plus 20%.

**i. OPERATIONS SUPPORT SYSTEMS (“OSS”)**

314 Operations support systems consist of databases and information that a local exchange carrier uses to provide telecommunications services to its customers. Among the functions of OSS are preordering, ordering, provisioning, maintenance and repair, and billing.

315 Verizon notes that the Commission in the Part A Proceeding adopted Verizon’s proposed method of recovering its OSS transition and transaction costs and the amount of those costs for a defined time period.<sup>292</sup> Accordingly, Verizon proposes that an OSS transition/transaction charge in the amount of \$7.03 (the sum of \$3.27 for OSS transition costs and \$3.76 for OSS transaction costs) be added to each CLEC LSR.

316 The Joint CLECs note that the Commission’s Nineteenth Supplemental Order in the Part A Proceeding of this docket rejected Verizon’s proposed combination of OSS charges with other NRCs, and required Verizon to establish separate rates for OSS recovery on a per-LSR basis.<sup>293</sup> According to the Joint CLECs, the NRCs proposed by Verizon in the Part B Proceeding also include OSS costs. The Joint CLECs request that Verizon be required to remove those costs from all nonrecurring charges

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<sup>291</sup> Verizon Brief, at para. 59.

<sup>292</sup> See Thirteenth Supplemental Order, at para. 156-160.

<sup>293</sup> See Nineteenth Supplemental Order, at para. 4-6.

and recover those costs through the separate OSS charge previously authorized by the Commission.<sup>294</sup>

317 Consistent with our prior decision, we require Verizon to separately state the OSS recovery charges as approved by the Commission on a per-LSR basis.

**j. HIGH CAPACITY LOOPS**

**i. Hi-Capacity Loop NRC Study**

318 The Joint CLECs contend that it was not apparent until during the Part B hearings that Verizon proposes to establish nonrecurring charges for high capacity loops at the same levels as the nonrecurring charges the Commission approved in UT-960369 for unbundled loops. The Joint CLECs object because Verizon did not file a cost study or other documentation to support the company's proposal. According to the Joint CLECs, if Verizon calculated these NRCs consistent with other nonrecurring costs in the Part B Proceeding, then they are similarly overstated.<sup>295</sup>

319 Verizon agrees with the Joint CLECs that it does not propose new nonrecurring charges for high capacity loops, but proposes to charge CLECs at the same level as the nonrecurring charges for a DS-0 loop adopted in Docket UT-960369. However, Verizon contends that it is unnecessary to submit a cost study to demonstrate why such charges are not overstated. Verizon argues that the CLECs seek to re-litigate costs and rates previously adopted by the Commission.

320 Verizon does not make clear why the nonrecurring cost of an ordinary POTS line would be the same as for a high capacity loop. We disagree that such a demonstration constitutes re-litigation of previously approved costs and rates. Without a substantive record, we are unable to either approve or disapprove Verizon's proposal. Verizon must file in the Part E Proceeding a cost study for high capacity loops that reflects our Part B decisions.

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<sup>294</sup> Joint CLEC Brief, at para. 104.

<sup>295</sup> Joint CLEC Brief, at para. 105.

**ii. Converting Special Access or Private Line Circuits to High Capacity Loops**

321 The Joint CLECs also contend that Verizon did not propose a nonrecurring charge for  
converting special access circuits or private line circuits to high capacity loops.<sup>296</sup>  
According to the Joint CLECs, such conversions require the same transfer of billing  
information as an EEL conversion. The Joint CLECs argue that the Commission  
should require Verizon to charge the same nonrecurring charge for conversions of  
special access or private line circuits, regardless of whether those circuits are being  
converted to EELs or to unbundled loops.

322 Verizon argues that its costs accurately account for the steps necessary to effect a  
change from special access to UNE.<sup>297</sup>

323 We agree with the Joint CLECs that there is no difference between converting a  
circuit to an unbundled loop and converting a circuit to an EEL. We find that  
Verizon must charge the same nonrecurring charge for conversions of special access  
or private line circuits, regardless of whether those circuits are being converted to  
EELs or to unbundled loops.

**6. VERIZON'S RECURRING COSTS AND RATES**

**a. ICM Cost Study Methodology**

324 In this proceeding Verizon sponsors a new cost model, the Integrated Cost Model  
("ICM"), to estimate the company's recurring and nonrecurring costs.<sup>298</sup> According  
to Verizon, ICM is a long-run incremental cost model designed to calculate the  
forward-looking cost of provisioning telecommunications services and UNEs out of  
Verizon's network in Washington. ICM allegedly does this by designing the network  
using currently available, forward-looking technology, while reflecting Verizon's  
engineering practices and operating characteristics, and by relying on the prices for

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<sup>296</sup> The example cited by the Joint CLECs is where either circuit is converted to the loop portion of an EEL alone and Verizon-provided transport is not included. *See* Joint CLEC Brief, at para. 106.

<sup>297</sup> See our discussion above concerning "Migration As Is" for EELs.

<sup>298</sup> ICM is comprised of six modules: Loop, Switch, Interoffice Transport, Signaling System 7 ("SS7"), Expense, and Mapping/Reporting. *See* Verizon Brief, at para. 66.

labor, material, and equipment that Verizon is actually able to obtain in Washington state.<sup>299</sup>

325 Verizon avers that ICM models a network based on existing wire center locations that is capable of serving one hundred percent of current demand for all of the network elements that Verizon is required to unbundle.<sup>300</sup> Verizon defines the Demand Unit, a grid that is 1/200<sup>th</sup> by 1/200<sup>th</sup> of a degree in size, as the basic unit of analysis used in ICM. According to Verizon, utilizing line count estimates by census block from PNR Associates, Stopwatch Maps, assigns customer lines to each Demand Unit on the basis of each grid's share of road-feet in the wire center. The Demand Units are then assigned to each wire center based on Verizon's tariffed exchange boundaries and the resulting totals for each wire center are trued up to Verizon's actual line counts by wire center.<sup>301</sup>

326 Verizon maintains that ICM possesses several characteristics that will facilitate the Commission's determination of Verizon's forward-looking costs in Washington. Specifically, Verizon maintains that ICM allows the user to observe and vary inputs, and evaluate the effect on intermediate and final output, thereby affording tremendous testing capability. Verizon also claims that ICM is completely open to inspection, including the model code and all preprocessing functions. Finally, Verizon avers that ICM is integrated, combining all network components into one model that operates on a consistent set of inputs.<sup>302</sup>

327 Verizon contends that many of the criticisms of ICM and Verizon's proposed recurring costs and rates hinge on other parties' preferences to use the cost models submitted in UT-960369 in this proceeding. Verizon maintains that this is not an option because the old models were not introduced into evidence, and were so flawed that the Commission explicitly rejected them.<sup>303</sup> Verizon believes that the Commission should only consider if ICM is consistent with the cost methodology established in UT-960369, not if it replicates the previous models.<sup>304</sup>

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<sup>299</sup> Verizon Brief, at para 63.

<sup>300</sup> Verizon Brief, at para 64.

<sup>301</sup> Verizon Brief, at para 65.

<sup>302</sup> Verizon Brief, at para 67.

<sup>303</sup> Verizon Reply Brief, at para. 71-73.

<sup>304</sup> Verizon Reply Brief, at para. 76.

- 328 Staff claims that Verizon's ICM study should be rejected because it is not open to inspection. Staff contends that it is unable to examine the model itself for programming errors because all of the data, including numerous complex mathematical formula, are compiled, making them inaccessible. Staff argues that the only way to determine if the program version of the model is consistent with its documentation is to perform a sensitivity analysis, but Staff was unable to do so because of the strict time frame of this proceeding.<sup>305</sup>
- 329 Verizon disputes Staff's claim that ICM is a closed model. Verizon states that ICM offers four levels of detailed documentation, culminating in the production of the actual code. Verizon claims that sensitivity analysis is not the only way to determine if programming errors exist in ICM. Rather, the reviewer need only look at the source code as described in testimony or follow along with the test calculations provided in the annotated source code that is provided. Verizon also states that ICM allows one to view intermediate inputs, which Staff agrees is one method of determining whether the model is consistent with the documentation.<sup>306</sup>
- 330 Staff also takes issue with many of the model's inputs. First, Staff believes that Verizon's loop length estimates, ranging between ratios of 0.19 to 2.16 times actual loop lengths, are inaccurate. Second, Staff believes that Verizon's pole costs are unreasonably high and based on exorbitant loading factors that are unsupported by documentation.<sup>307</sup> Third, Staff contests the cost inputs used by Verizon for a 12-pair NID because they are 90 times the cost of a 6-pair NID and twice the cost of a 25-pair NID. Staff argues that Verizon's methodology either produces unreasonably high costs using a 12-pair NID or incorrectly provisions plant by using a 25-pair NID for 7 to 12 line customers.<sup>308</sup>
- 331 Verizon responds to Staff's concerns about loop length estimates produced by ICM, stating that it is very difficult to obtain accurate data on loop lengths. Furthermore, Verizon argues that a comparison between TELRIC and real world data to determine loop lengths is not appropriate because a TELRIC network uses a different technology mix and instantaneously builds an optimal network to serve 100% of the current market. Verizon claims that this is materially different than its actual

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<sup>305</sup> Staff Brief, at page 20.

<sup>306</sup> Verizon Reply Brief, at para. 93.

<sup>307</sup> Staff Brief, at page 21.

<sup>308</sup> Staff Brief, at page 22.

network, which was constructed under different constraints and evolved over a long period of time.<sup>309</sup>

- 332 In response to other specific criticisms, Verizon defends its pole cost estimates and supporting documentation as being accurate, verifiable, and conservative. Verizon claims that the supply factor data used in the study is the most current data available and very likely underestimates true costs. Verizon claims that Staff's concerns over the cost of a 12-pair NID and improperly provisioned 25-pair NIDs are trivial because ICM does not utilize 12-pair NIDs, and the effect on the monthly loop cost from using 25-pair NIDs is extremely small. If the price of a 25-pair NID were dropped to zero, the monthly loop cost would fall approximately \$0.01.<sup>310</sup>
- 333 Staff contends that Verizon's cost studies do not reflect the Commission's prior determinations on structure sharing that were decided in UT-960369, because parties are unable to verify whether Verizon correctly reflected its actual structure sharing experience, and ICM does not allow structure sharing to be reflected on a density zone basis.<sup>311</sup> TRACER argues that Verizon's ICM is not consistent with TELRIC principles because it reflects structure sharing parameters based on Verizon actual operating experience, rather than the structure sharing parameters approved by the Commission in UT-960369. TRACER opposes using ICM because it models future demand and then assigns the cost of spare capacity to the current number of working lines. TRACER argues that this methodology charges customers for unnecessary facilities.<sup>312</sup>
- 334 Verizon argues that these criticisms of ICM inputs are unfounded. Moreover, Verizon believes that even if they were true, they do not justify rejecting Verizon's cost model, because these inputs are fully adjustable.<sup>313</sup> Verizon argues against using Commission-determined inputs for structure sharing, cable sizing, fill factors, plant mix, and placement costs. Rather, Verizon argues that it is necessary to estimate Verizon's costs with inputs based on Verizon's experience.<sup>314</sup>

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<sup>309</sup> Verizon Reply Brief, at para. 94.

<sup>310</sup> Verizon Reply Brief, at para. 110.

<sup>311</sup> Staff Brief, at page 23.

<sup>312</sup> TRACER Brief, at para. 21.

<sup>313</sup> Verizon Reply Brief, at para. 103.

<sup>314</sup> Verizon Reply Brief, at para. 104.

- 335 The Joint CLECs contend that Verizon's cost estimates for loop facilities vary significantly from costs the Commission previously established for the same facilities. For example, the Joint CLECs argue that Verizon effectively proposes adoption of a higher cost for a four-wire loop when it is part of a DS-1 loop than the Commission previously established for the four-wire loop alone. The Joint CLECs recommend that the commission reject Verizon's ICM.<sup>315</sup>
- 336 Verizon claims that the Joint CLECs incorrectly conclude that ICM calculates higher costs for four-wire loops when they are part of a DS-1 loop. Because the Joint CLECs do not provide a citation to support this charge, Verizon assumes the Joint CLECs' argument is based on Exhibit T-1310, at page 38. There, Mr. Klick argued that ICM developed a DS-0 loop cost that was approximately 25% higher than the 2-wire loop cost developed by the Commission in UT-960369. Verizon maintains that the Joint CLECs' witness incorrectly added the separate costs for feeder, distribution, drop, and NID to get such a high DS-0 loop cost. Since the distribution cost already includes the cost of the drop and NID, Verizon claims that these costs are double-counted by the Joint CLECs.<sup>316</sup>
- 337 TRACER faults ICM's use of ultimate demand figures when sizing distribution facilities. TRACER avers that Verizon's distribution assumption of 2.34 lines per lot is too high, given current demand of 1.12 lines per lot. TRACER argues that the Commission rejected a similar proposal in Docket No. UT-960369 when it ordered US West to adjust its model to provision 1.25 pairs per lot.<sup>317</sup>
- 338 Verizon maintains that TRACER misinterprets the Eighth Supplemental Order from UT-960369 when alleging that ICM improperly sizes distribution plant. According to Verizon, TRACER is confusing the Commission's decision regarding the number of lines provided by the distribution portion of the network with the demand for lines per lot.<sup>318</sup>
- 339 TRACER argues that Verizon overstates costs by developing expense ratios based on embedded expenses<sup>319</sup> Verizon disagrees and argues that by removing expenses

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<sup>315</sup> Joint CLEC Brief, at para. 107.

<sup>316</sup> Verizon Reply Brief, at para. 78. Exhibit T-1174, at page 10.

<sup>317</sup> TRACER Brief, at para. 23.

<sup>318</sup> Verizon Reply Brief, at para. 83.

<sup>319</sup> TRACER Brief, at para. 25-27.



associated with non-forward-looking investments and by using expense-to-investment ratios specific to each type of equipment, the company was able to assemble a forward-looking network where the shift in technology mix is matched by a specific expense-to-investment ratio.<sup>320</sup>

340 TRACER also argues that Verizon should not be allowed to update UNE prices to account for inflation, because the effects of inflation are already captured by the use of a nominal rate for the cost of capital.<sup>321</sup> Verizon argues that TRACER assumes that the network “built” in today’s TELRIC studies should be held constant until the end of its useful life. According to Verizon, this violates the “long-run” costing principle of TELRIC, which requires that the carrier in question not be constrained in terms of the size and type of plant. Verizon argues that the long-run, forward-looking network constructed for today’s TELRIC study will not be the same three years from today, because the study would require all new inputs for such items as material, labor, depreciation, and rate of return.<sup>322</sup>

**i. ICM vs. Cost Models from UT-960369**

341 Parties opposing Verizon’s cost model have disputed both the openness of the model platform and many of its inputs. These parties generally have advocated that the Commission reject ICM and instead base prices on the models that were developed in UT-960369. While the Commission believes that many of the arguments opposing Verizon’s cost model have merit, we conclude for several reasons that substituting the models used in UT-960369 is not a viable option.

342 First, as noted by Verizon, none of the models from UT-960369 is part of the record in this proceeding. Second, the Commission explicitly rejected using these models in future proceedings.

Based upon the evidence presented in this case, we conclude that none of the current versions of the models should be adopted for use in future proceedings. All of the models are going through an evolutionary process. Consequently, it would serve no purpose to adopt versions of the models presented in this proceeding as a

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<sup>320</sup> Verizon Reply Brief, at para. 86.

<sup>321</sup> TRACER Brief, at para. 25-27.

<sup>322</sup> Verizon Reply Brief, at para. 87.

Commission “sanctioned” model. Rather, as suggested by U S WEST, we believe that the models filed in this proceeding should be used to establish a reasonable range of costs that can be used as the basis for setting prices in Phase II. *Eighth Supplemental Order, UT-960369, at para. 35.*

343 Third, the models from UT-960369 do not estimate costs for many of the UNEs that are at issue in this proceeding. Therefore, even if the models from the prior proceeding were adequate and regarded as evidence in this docket, the Commission would have to look elsewhere when developing a number of UNE rates.<sup>323</sup>

#### ii. Openness of the Model Platform

344 While we appreciate the arguments raised by Staff regarding the degree to which ICM comports with the Commission’s requirement that a model be open, the Commission finds itself limited to using Verizon’s cost model to develop UNE rates in this proceeding because no party sponsored an alternative to Verizon’s cost model. That said, we want to be clear that we are not adopting or endorsing Verizon’s cost model. Rather, we are reluctantly using ICM because there is nothing else in the record on which we can rely on. Since we have also concluded that there are significant problems with Verizon’s model, we require Verizon to adjust its model to reflect the specific changes that are described below. After making these changes Verizon is ordered to re-run its model. Verizon must submit the results to the Commission as part of its compliance filings within ten business days after the service date of this Order, unless additional time is specifically requested and granted by letter of the Commission’s executive secretary.

#### iii. Loop Lengths

345 Staff argues that the loop length estimates developed by ICM vary greatly from Verizon’s actual loop lengths, and notes that the Commission has previously given great weight to the degree to which a model produces loop lengths that comport with

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<sup>323</sup> For example, none of the models submitted in UT-960369 calculated the cost of a DS-3 loop. TR at 3887-3888. The Commission concluded that the Hatfield Model’s interoffice cost estimates were unreliable (Eighth Supplemental Order, at para. 440) and the Benchmark Cost Model did not estimate interoffice costs.

actual loop lengths.<sup>324</sup> Paradoxically Verizon argues that loop length is not a good criterion for validating the reasonableness of a model.<sup>325</sup>

346 We agree with Staff that the loop length estimates proposed by Verizon lack credibility. We do not find Verizon's argument in defense of its proposal convincing as it conflicts with previous findings by this Commission. Verizon's opinion regarding the forensic quality of loop lengths as an indicator of a model's reasonableness also conflicts with the company's purported goal of building a cost model that reflects actual operating characteristics.<sup>326</sup>

347 We also find Verizon's method for identifying customer locations problematic. According to Verizon, ICM breaks a wire center into grids that is 1/200<sup>th</sup> by 1/200<sup>th</sup> of a degree in size. There is no indication that Verizon's customer location methodology takes into account multi-tenant housing units. Therefore, Verizon's methodology is likely to lead to an overstatement of the average length of the loop. We order Verizon to modify ICM to reflect loop lengths at the wire center level based on data the company developed in 1998.<sup>327</sup>

#### iv. Distribution Facilities

348 TRACER cites the Eighth Supplemental Order as support for rejecting Verizon's proposed fill factor.<sup>328</sup> Verizon points out, though, that the Commission did not assume in UT-960369 that the capacity per lot was 1.25.<sup>329</sup> Rather, the Commission assumed that the demand was 1.25 lines when 3 lines were actually installed—hence an effective fill of 42%.

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<sup>324</sup> Staff Brief, at page 20-21.

<sup>325</sup> Verizon Reply Brief, at para. 98, 102.

<sup>326</sup> As noted above, Verizon argued "ICM... designs the network using currently available, forward-looking technology, while reflecting Verizon NW's engineering practices and operating characteristics, and by relying on the prices for labor, material and equipment that Verizon NW is actually able to obtain in Washington. This is important because unless a cost model reflects Verizon NW's engineering practices and operating characteristics, it cannot produce realistic estimates of Verizon NW's forward-looking costs." See Verizon Brief, at para. 63. See also Exhibit T-1170, at page 6.

<sup>327</sup> Verizon must use data from its "1998 study (set forth in response to Bench Request #19 in Docket No. UT 980311(a))" since the company has stated that this information is "the most accurate actual loop length data available to Verizon at this time." See Exhibit T-1174, at page 34-35.

<sup>328</sup> TRACER Brief, at para. 23.

<sup>329</sup> Verizon's Reply Brief, at para. 83.

349 In Verizon's model, demand is estimated to be 1.12 lines per lot with capacity being  
2.34 lines per lot—hence an effective fill of 48%. Whereas Verizon has proposed a  
fill rate that is higher than the fill rate previously approved by this Commission, we  
find Verizon's current proposal to be reasonable.

350 TRACER also argues that the WUTC should reject Verizon's proposal because its  
method for sizing distribution plant is inconsistent with the FCC's order regarding  
universal service.<sup>330</sup> In the High Cost Order, the FCC rejected the concept of using  
ultimate demand in the USF model. We do not find TRACER's argument persuasive.  
The FCC's model was intended to estimate the cost of providing universal service,  
not UNEs. We do not believe the FCC's decision provides guidance for the specific  
costing issue we have before us. Therefore, the Commission accepts Verizon's  
method for sizing distribution facilities.

#### iv. Drop Costs

351 In UT-960369 the Commission strongly encouraged the parties to substitute the  
results of a drop-length study for the value judgments of its experts.<sup>331</sup> Unfortunately,  
as noted by Staff, Verizon did not conduct such a study for this proceeding.<sup>332</sup>

352 Because Verizon did not sponsor a drop length study, Staff recommends that the  
Commission adopt Qwest's drop length estimates and apply them to Verizon.<sup>333</sup>  
However, in another proceeding Staff argued that Qwest's drop study was not  
valid.<sup>334</sup> The Commission also recognized that there were problems with Qwest's  
study and the company's proposed values were used as an upper limit. For Verizon,  
the Commission relied on the estimates adopted in our Washington USF Order.<sup>335</sup>

353 Because Verizon has failed to submit a drop length study, and in light of the  
Commission's stated concerns regarding Qwest's study in the USF proceeding, we  
must look elsewhere to develop Verizon's drop costs. To be consistent with the

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<sup>330</sup> *In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket No. 96-45; CC Docket No. 97-160, Tenth Report and Order, 14 FCC Rcd 20156 (rel. November 2, 1999) ("High Cost Order"), at para. 199.

<sup>331</sup> Eighth Supplemental Order, UT-960369, at para.133.

<sup>332</sup> See Exhibit 1352, at page 3.

<sup>333</sup> Staff Brief, at page 27.

<sup>334</sup> See *In the Matter of Determining Costs for Universal Service*, Docket No. UT-980311(a), Tenth Supplemental Order (November 20, 1998) ("Washington USF Order"), at para. 119.

Commission's previous decision, we order Verizon to adjust its drop lengths to match the values adopted in UT-960369.<sup>336</sup>

**vi. Structure Sharing**

354 Based on our review of the record it is clear that Verizon did not implement the structure sharing ratios adopted by the Commission in UT-960369. Verizon attempts to justify its decision by noting that in the previous proceeding "the structure sharing percentages were not applied to Verizon's cost model."<sup>337</sup> We find Verizon's argument on this point disingenuous. It is true that the Commission did not apply the aforementioned structure sharing ratios to Verizon's previous study. Verizon neglects to mention however that in UT-960369 the Commission pointed out that the company's model "does not provide the user with the flexibility to alter the assumption of zero structural sharing." Nor does it mention that the Commission reduced Verizon's cost model loop estimate to reflect cost sharing.<sup>338</sup>

355 Verizon also fails to mention that *in a subsequent proceeding*, the Commission applied these same structure sharing ratios to Verizon's model.<sup>339</sup> Therefore, consistent with our previous decisions, we require Verizon to recalculate ICM cost estimates based on the structure sharing ratios that we previously adopted in UT-960369.<sup>340</sup>

**vii. Pole Costs**

356 Staff argues that Verizon's ICM model produces a higher cost estimate for poles than the value that was previously rejected by the Commission in UT-960369. Staff also claims that the support offered by Verizon for its cost estimates is inadequate.<sup>341</sup> However, Staff does not propose an alternative cost for poles.

357 Because Verizon's current pole cost estimate exceeds the cost estimate previously rejected by the Commission, we reject Verizon's proposal and order the company to

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<sup>335</sup> Washington USF Order, at para. 119-122.

<sup>336</sup> See Eighth Supplemental Order, at para.134.

<sup>337</sup> Exhibit T-1174, at page 30.

<sup>338</sup> Eighth Supplemental Order, at para. 68.

<sup>339</sup> Washington USF Order, at para. 108.

<sup>340</sup> Eighth Supplemental Order, at para. 76.

<sup>341</sup> Staff Brief, at page 21-22. See also Exhibit 1352, at page 3.

adjust its model to reflect the pole cost estimates adopted in Docket UT-980311.<sup>342</sup> We find that these pole cost estimates are a reasonable and appropriate proxy because they are based on publicly available data whose derivation is well documented.

**viii. Structure Mix**

358 TRACER contends that Verizon erred by basing its study on the company's actual structure mix (that is, the actual mix of aerial, buried, and underground cable in Verizon's network). TRACER claims that this conflicts with the Eighth Supplemental Order, but TRACER does not identify where the Commission allegedly reached this conclusion.<sup>343</sup> Although the Commission in Docket No. UT 980311(a) noted that "[b]oth TRACER and Staff argue that use of the HAI 5.0a default values for plant facility mix are consistent with our Eighth Supplemental Order," the Commission also stated that "[w]e find no explicit language concerning structure mix in that Order."<sup>344</sup> We find that Verizon's structure mix methodology is acceptable because we did not address this subject in UT-960369, and because Verizon's decision to reflect actual mix is consistent with Commission decisions in Docket No. 980311(a).

**ix. Expense Ratio**

359 TRACER contends that Verizon builds into its TELRIC calculations the higher operating expenses associated with embedded plant and equipment. Verizon disputes TRACER's claim. Verizon maintains that it removed expenses associated with non-forward-looking investments and then applied expense-to-investment ratios specific to each type of equipment. We are satisfied, based on the evidence cited by Verizon, that the company has properly estimated forward-looking expense ratios for use in its model.

**x. Inflation**

360 TRACER argues that Verizon's model would improperly double-count the effects of inflation if, in the future, Verizon were permitted to update UNE prices to reflect

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<sup>342</sup> Washington USF Order, at para. 180.

<sup>343</sup> TRACER Brief, at para. 21.

<sup>344</sup> Washington USF Order, at para. 106.

inflation.<sup>345</sup> No no party objected to the characterization in the record that this issue is not ripe. It is a matter that can be considered in the next TELRIC proceeding,<sup>346</sup> and the Commission will address this issue in the Part E Proceeding.

**xi. Other Issues**

361 After adjusting ICM to reflect the changes described above, Verizon must show in a compliance filing that the average cost of a DS-0 loop comports with the Commission's prior finding that the monthly cost of an unbundled loop is \$23.94.<sup>347</sup> In the compliance filing, Verizon must provide a detailed explanation indicating the inputs that were adjusted in order to achieve the loop cost estimate that comports with the Commission's prior orders. Verizon must also demonstrate in its compliance filing that all other recurring cost estimates (e.g., sub-loop unbundling, DS-1 and DS-3 loops) were derived using the same input values that were used to obtain the compliance loop estimate of \$23.94. Finally, the company must also use the common cost factor approved for Verizon in this decision, and demonstrate that its cost estimates reflect the current Commission authorized depreciation rates.<sup>348</sup>

**b. Dark Fiber And High Capacity Loops**

362 Verizon in this proceeding sponsored two separate cost models in addition to ICM – one model for dark fiber and the other for high capacity loops.<sup>349</sup> Dark fiber is the term used to describe fiber optic facilities that have not been connected to the electronic equipment that is necessary to transmit light signals. When a CLEC obtains dark fiber it must attach its own electronic equipment to make the fiber operational. This equipment also determines the fiber's capacity.

363 In contrast, when a CLEC orders high capacity facilities from Verizon, it receives a share of fiber capacity on a circuit that has already been "lit" by Verizon. That is, Verizon has already attached the necessary electronics to make the optical fiber operational and to establish its capacity. Verizon defines high capacity facilities as DS-3 loops, CLEC dedicated transport, and CLEC dedicated transport for EELs.

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<sup>345</sup> TRACER Brief, at para. 27.

<sup>346</sup> TR at 3742.

<sup>347</sup> Seventeenth Supplemental Order, UT-960369, at para. 205.

<sup>348</sup> See Exhibit T-1174, at page 28. Verizon's common cost factor is discussed below.

- 364 Verizon proposes to use the same inputs found in ICM for its dark fiber study. Verizon identifies dark fiber costs for two different applications – loop and transport. The loop application includes both the cost of the fiber itself and fiber distribution panel (“FDP”) costs on each end. These costs are split between feeder and distribution plant. In contrast, the transport application identifies the fiber and FDP costs separately. Verizon’s dark fiber study is based on the cost of a 24-fiber cable, using the average length of a business loop modeled by ICM.<sup>350</sup> According to Verizon, the high capacity facilities study was performed in the same manner as the dark fiber study.<sup>351</sup>
- 365 The Joint CLECs and TRACER contend that Verizon fails to demonstrate that the costs estimated by the company’s “stand-alone” studies are consistent with the methodology or results used by the Commission to establish rates in UT-960369.<sup>352</sup> The Joint CLECs’ witnesses Kilck and Pitkin testified that Verizon’s high capacity loop study employs the most expensive architecture for providing DS-3 loops. According to Messrs. Klick and Pitkin, OC-12 and OC-48 technology are less expensive options, and are used cumulatively to provision approximately 77% of the company’s DS-3 loops, as demonstrated by Verizon’s high capacity digital facility study. The Joint CLECs also argue that Verizon’s DS-3 costs should be recalculated after inserting an 85% fill factor.<sup>353</sup>
- 366 Verizon disagrees that the company should use OC-12 and OC-48 technology, instead of OC-3 technology, in its DS-3 loop study. Verizon challenges the Joint CLECs’ basis for concluding that DS-3 loops should not be provisioned using OC-3 technology. According to Verizon, the CLECs’ reliance on the technology distribution used in the company’s high capacity digital facility study fails to consider that the DS-3 loop study is intended for facilities that serve end-user customers. In contrast, OC-12 and OC-48 technology is intended for high capacity digital facilities that serve customers with significant bandwidth demand that can also aggregate

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<sup>349</sup> Verizon’s high capacity loops cost model includes a DS-3 loop study, which the Joint CLECs critique.

<sup>350</sup> Verizon Brief, at para. 71-73.

<sup>351</sup> Verizon Brief, at para. 75. The results of Verizon’s study are located in Exhibit 1171/C-1171, at Tab 22.

<sup>352</sup> Joint CLEC Brief, at para. 110.

<sup>353</sup> Exhibit T-1310, at page 40-41.



traffic from numerous end-users (i.e., interexchange carriers).<sup>354</sup> Verizon argues that a different technology mix is appropriate for DS-3 loops and dedicated transport because they perform different functions.<sup>355</sup>

367 Verizon maintains that the Joint CLECs' suggested fill factor of 85%, coupled with the use of an OC-3 technology, leads to the absurd conclusion that the average end-user DS-1 customer has a demand for 71 DS-1s.<sup>356</sup> Verizon contends that its individual end-user customers do not have anywhere near that average level of demand. The company points out that the Joint CLECs were unable to provide any evidence to support an 85% fill factor.<sup>357</sup>

368 TRACER argues that Verizon's stand-alone studies are inconsistent with TELRIC and the Commission's orders in UT-960369, because these studies estimate costs on an element-by-element basis rather than designing an entire network that incorporates available economies of scale.<sup>358</sup>

369 Verizon responds that the Commission did not establish DS-3 loop costs in UT-960369, and that none of the models submitted in that proceeding calculated those costs.<sup>359</sup> Verizon also argues that there is no evidence in the record to support TRACER's claim that the company's external studies fail to reflect the entire network.<sup>360</sup>

370 We agree with Verizon that there is no evidence in the record to support the claim that the company's stand alone external studies fail to reflect the economies of scale and scope that exist on the incumbent's network. Therefore, we accept Verizon's stand-alone studies with the condition that they be modified to reflect the same changes that the Commission required for Verizon's ICM.<sup>361</sup>

371 The Joint CLECs have also questioned the technology mix assumed by Verizon for high capacity facilities. The Joint CLECs argue that Verizon should use "less

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<sup>354</sup> Exhibit T-1174, at page 20-21.

<sup>355</sup> Verizon Reply Brief, at para. 111.

<sup>356</sup> Verizon Reply Brief, at para. 112. *See also* Exhibit T-1174, at page 20.

<sup>357</sup> Verizon Reply Brief, at para. 112.

<sup>358</sup> TRACER Brief, at para. 29.

<sup>359</sup> Verizon Reply Brief, at para. 114. *See also* TR at 3887-3888.

<sup>360</sup> Verizon Reply Brief, at para. 116.

<sup>361</sup> These changes were discussed above in Paragraphs 324 through 361.

expensive” OC-12 and OC-48 technology and an 85% fill rate. We considered and rejected these proposals regarding Qwest’s recurring cost studies, and continue to reject them with respect to Verizon.<sup>362</sup>

**c. COMMON COSTS**

372 Verizon applied the common cost factor of 24.75% adopted in UT-960369<sup>363</sup> to its ICM model in this proceeding. In UT-960369, the Commission found that markups are not relevant unless a showing can be made that the methodologies used in different studies are the same.<sup>364</sup> We issued Bench Request Nos. 14 and No. 43 (“BR-43”) in order to assess how Verizon’s application of the 24.75% common cost factor to ICM is consistent with our previous findings. BR-43 directed Verizon to calculate a common cost factor using the company’s common costs that were provided in response to Bench Request No. 14, and Verizon was directed to calculate its direct costs using the same type of information that the company used to determine its common costs. We directed Verizon to classify its expenses and investments as either direct, common, or both, in a manner consistent with the treatment of expenses and investments within ICM, and we outlined a five-step process to guide Verizon’s calculation.

373 Verizon contends it is improper to use the common cost factor of 17.89% that was developed in response to BR-43, because the direct costs for some UNEs have already been established. Verizon argues that it is necessary to adjust ICM estimates to comply with the existing UNE rates when determining the common cost factor. According to Verizon, this increases the BR-43 common cost factor to 19.3%.<sup>365</sup>

374 Verizon also maintains that the previously adopted common cost factors for various UNEs are significantly less than the 19.3% that would be required to allow the

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<sup>362</sup> See discussion at Paragraph 204.

<sup>363</sup> See Seventeenth Supplemental Order, UT-960369, at para. 204.

<sup>364</sup> See Seventeenth Supplemental Order, UT-960369, at para. 176.

<sup>365</sup> Verizon Brief, at para. 76-80. Verizon adjusted the direct costs from ICM downward to reflect the Commission’s previous findings. Verizon uses established end office switching and port rates to illustrate its point. “Using in-service lines and a conservative estimate of 890 minutes of use per month would lead to a negative adjustment of \$28 million in the Company’s total direct costs. Thus the \$394 million of direct costs derived from ICM should be reduced to \$366 million based on previous Commission findings. The resultant effect on the common cost factor would be to increase it to 19.3 percent.” Verizon Brief, at para. 79. That is, \$70.5 million divided by \$366 million is 19.3% as opposed to \$70.5 million divided by \$394 million which is 17.89%

Company an opportunity to recover its hypothetical forward looking common costs.<sup>366</sup> Accordingly, Verizon argues that a common cost factor significantly in excess of 19.3% would be required for all remaining UNE items (which account for a relatively small portion of direct costs). Verizon concludes that applying the previously ordered common cost factor of 24.75% provides a reasonable and yet conservative estimate of the common cost to be assigned to each of the remaining UNEs being addressed in this proceeding.<sup>367</sup>

375 According to Commission Staff, in UT-960369 Verizon was only ordered to use a 24.75% common cost factor based on Qwest data because Verizon's own study was seriously flawed. Now that Verizon is capable of calculating a cost allocator based on ICM as demonstrated by its response to BR-43, Staff argues that the company should not be allowed to reap the benefit of using Qwest's higher common markup factor.<sup>368</sup>

376 Staff maintains that Verizon's argument in support of an upward adjustment to the common cost factor from BR-43 relies on "new evidence" that has not been verified or subjected to cross-examination, because BR-43 was not made available to parties before the hearings. Furthermore, Staff argues, this new information only shows that ICM produces higher costs than previously ordered by the Commission; it does not lead to the conclusion that the common cost factor developed using the methodology of BR-43 is invalid, but it does indicate that the common cost factor determined in UT-960369 needs to be reevaluated.<sup>369</sup> Staff alternatively argues that the markup for recovery of common costs should be minimally reduced to 24.47% because of the way Verizon's ICM applies the markup to recurring costs.<sup>370</sup>

377 The Joint CLECs and Tracer agree with Staff that Verizon should not be allowed to "cherry-pick" its common cost factor. That is, Verizon cannot choose the higher cost estimates using ICM *and* the higher common costs factor established in the previous proceeding, because there is no evidence to demonstrate that Verizon's prior cost model and ICM assign the same proportion of total costs to individual UNEs.<sup>371</sup> The

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<sup>366</sup> Verizon Brief, at para. 80. *See also* Verizon response to BR-43. Verizon claims that the previous common cost factors are 17.93% -loops, 3.88% -ports, and 4.05% -EOS.

<sup>367</sup> Verizon Brief, at para. 80.

<sup>368</sup> Staff Brief, at page 24.

<sup>369</sup> Staff Reply Brief, at page 9.

<sup>370</sup> Staff Brief, at page 26.

<sup>371</sup> Joint CLEC Brief, at para. 111. *See also* TRACER Brief, at para. 30.

Joint CLECs suggest that if the Commission permits Verizon to use ICM, stand-alone models, or some other methodology of estimating recurring costs for UNEs, then the Commission should recalculate the common cost factor to ensure that Verizon does not over-recover its common costs.<sup>372</sup>

378 We conclude that it is inappropriate to apply the common cost factor from UT-960369 to Verizon's current cost study, because some common costs from UT-960369 are treated as direct costs by ICM. This could result in double recovery of these costs. As pointed out by Staff, the calculations supporting the common cost factors derived from BR-43 (either 17.89%, or 19.3%, as adjusted by Verizon) have not been the subject of follow-up discovery or testimony. We find this problematic because Verizon has conceded in its Brief that it made at least one error in the development of its expense factors.<sup>373</sup> If parties are allowed a full opportunity to conduct follow-up discovery on Verizon's response to BR-43, they may identify other problems with the calculations.

379 Therefore, we conclude that Verizon should utilize an interim common cost factor of 19.3% until a permanent rate is approved. Further discussion of this issue is deferred to Part E, and the Commission will adopt a permanent common cost factor for Verizon after parties have the opportunity to conduct discovery and present testimony regarding Verizon's calculations.

#### **d. High Capacity Loops**

380 Verizon proposes recurring rates for DS-1 and DS-3 UNE loops. A DS-1 loop is a loop that has been conditioned to support DS-1 transmission, including associated electronics. In contrast, DS-3 UNE loops are provisioned over fiber optic cable and include the electronics necessary to facilitate DS-3 transmission.<sup>374</sup> According to Verizon, only DS-1 loops exhibit cost characteristics that support geographic deaveraging. Therefore, Verizon does not propose to geographically deaverage rates for DS-3 UNE loops.<sup>375</sup>

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<sup>372</sup> Joint CLEC Brief, at para. 112.

<sup>373</sup> Verizon Brief, at page 21, footnote 22.

<sup>374</sup> Verizon Brief, at para. 82. *See* Exhibit T-1190, at page 19.

<sup>375</sup> Verizon Brief, at para. 82.

- 381 Verizon uses its ICM cost study to set prices for DS-1 loops, and a stand-alone cost model for DS-3 UNE loop rates. The Joint CLECs and TRACER advocate establishing DS-1 and DS-3 rates based on a modification of models from UT-960369.<sup>376</sup> The Joint CLECs argue that the Commission established the cost of loop facilities in the prior cost docket; therefore, the appropriate method for determining rates for high capacity loops that incorporate those facilities would be to start with the UNE loop rates already established by the Commission, subtract the cost of plug-in electronics implicit in the TELRIC for those loop costs, and add an appropriate TELRIC cost for the plug-in electronics associated with DS-1 and DS-3 loops.
- 382 Alternatively, if the Commission favors use of Verizon's ICM and stand-alone DS-3 model, then the Joint CLECs believe that Verizon's cost estimates are overstated. According to the Joint CLECs, Verizon assumes all DS-1 loops are provided over copper facilities and that all DS-3 loops are provisioned over OC-3 facilities, even though, as a practical matter, in multi-tenant environments, Verizon provides DS-1 loops over fiber where it divides DS-3 facilities into separate DS-1 circuits. The Joint CLECs alternatively propose that the Commission adopt revised DS-1 and DS-3 recurring loop rates.<sup>377</sup>
- 383 TRACER contends that Verizon's costs improperly include 24 times the fiber feeder and structure investment for DS-1 loops than the ICM assigns to 2-wire DS-0 loops. According to TRACER, Verizon's development of costs based on DS-0 equivalents is inconsistent with the Commission's conclusion in the Eighth Supplemental Order that structure costs should not be allocated to DS-1 and DS-3 loops on that basis. TRACER suggests that Verizon should be directed to rerun ICM to assign structure costs on a physical-line, not a channel-equivalent, basis.<sup>378</sup>
- 384 Verizon believes that the Joint CLEC / TRACER suggestion to establish high capacity loop rates based on the costs adopted in the previous proceeding has two major faults. First, there is no way to determine which portion of the loop costs adopted in that proceeding are attributable solely to "plug-in electronics" because the loop costs adopted by the Commission were the average of three separate models that assume different transmission media and technologies. Second, the proposed rates

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<sup>376</sup> Joint CLEC Brief, at para. 113; TRACER Brief, at para. 31.

<sup>377</sup> Joint CLEC Brief, at para. 115.

<sup>378</sup> TRACER Brief, at para. 33.

are improper because they rely on models that are not in the record and have been rejected by the Commission for use in future proceedings.<sup>379</sup>

385 Verizon also argues that the Joint CLECs ignore the fact that copper facilities may be the most economical technology, given a DS-1 end-user's needs. According to Verizon, the Joint CLECs incorrectly suggest that average per-unit costs can be efficiently lowered by serving customers requiring a single DS-1 loop with facilities capable of 84 times the required capacity.<sup>380</sup> Finally, Verizon maintains that TRACER's claim that Verizon's cost studies improperly assign structure costs on a DS-0 channel equivalent basis is mistaken.<sup>381</sup>

386 We reject the Joint CLECs' proposal because it requires the Commission to modify three separate models that are not in the record of this proceeding. Further, we are not persuaded that the Joint CLECs' proposed adjustments are appropriate. Verizon explained that its high capacity digital facility study provides the cost for CLEC dedicated transport, and that its technology distribution reflects customers with significant bandwidth demand (*i.e.*, IXCs). The DS-3 loop study, on the other hand, is intended for facilities that serve end-user customers, not carriers that can aggregate traffic from numerous end users.<sup>382</sup> We agree with Verizon that it is not reasonable to assume it is more efficient to serve a customer demanding a single DS-1 loop with facilities capable of 84 times that capacity. Therefore, we conclude that the data cited by the Joint CLECs and TRACER are not relevant to this discussion.

387 Based on the evidence cited by Verizon we also conclude that ICM properly assigns structure costs on a physical-line, rather than DS-0-equivalent, basis, and that ICM correctly assigns structure costs to fiber facilities in proportion to the share of fiber capacity.

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<sup>379</sup> Verizon Reply Brief, at para. 120.

<sup>380</sup> Verizon Reply Brief, at para. 122. To illustrate, Verizon postulates that if a four-passenger car costs \$20,000 and a 100-seat double-decker touring bus costs \$200,000, the bus would be less expensive on a per-seat basis (\$2,000 for the bus as compared to \$5,000 for the car). Verizon argues that the Joint CLECs' logic would require a family of four to buy the bus because of the per-seat price. However, the family would not need the additional 96 seats, and thus would not pay an additional \$180,000. *See* Exhibit T-1174, at 15-16.

<sup>381</sup> Verizon Reply Brief, at 115; Exhibit T-1174, at page 12-13.

<sup>382</sup> Verizon Reply Brief, at para. 111; Exhibit T-1174, at page 20-21.

388 On a different point, TRACER claims that Verizon's study improperly assumes that copper architectures will be used to provision DS-1 loops 69% of the time. TRACER suggests that this 69% weighting of copper loops is excessive and unreasonable for a forward-looking study and should be adjusted to match the 27% weighting used by Qwest.

389 We agree with TRACER that Verizon's assumption is excessive. Current ARMIS data indicate that Verizon is serving a larger percentage of its customers by provisioning Digital Line Carrier facilities.<sup>383</sup> We conclude that it is reasonable to assume a larger percentage of fiber optic cable in Verizon's fiber-copper mix than Verizon proposes. We order Verizon to adjust its model to reflect 50% fiber and 50% copper in the fiber-copper mix for high capacity loops.

**e. Switching**

390 Verizon proposes rates for three types of switch ports, in addition to the basic analog port rate that was established in the previous proceeding: 1) an ISDN BRI line side port; 2) a DS-1 trunk side port; and 3) an ISDN PRI trunk side port. Verizon also proposes TELRIC-based rates for specific features of the switch, such as caller ID and call waiting, because the costs of these services have allegedly not been included in the cost of switch ports or end-office switching. Verizon argues that feature-specific rates are proper because CLECs are then only charged for the features they use.<sup>384</sup> If a CLEC seeks to purchase a feature for which Verizon has not proposed a rate, Verizon proposes that the bona fide request ("BFR") process should be used to develop the rate.<sup>385</sup>

391 The only issue in dispute here is Verizon's proposal to establish a separate charge for vertical features. The Joint CLECs submitted testimony noting that Verizon's pricing proposal was inconsistent with the Eighth Supplemental Order, at paragraph 276.<sup>386</sup> The Joint CLECs correctly note that we previously determined that there is no compelling reason to establish a separate charge for vertical features because of the manner in which switching equipment is acquired. Rather, the inclusion of vertical

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<sup>383</sup> See "Table 43-07 -Transmission Facilities" at:

<http://gulfoss2.fcc.gov/cgi-bin/websql/prod/ccb/armis1/forms/armis.hts> .

<sup>384</sup> These rates can be found in Exhibit 1191, and Verizon Brief, Attachment A.

<sup>385</sup> Verizon Brief, at para. 85.

<sup>386</sup> Joint CLEC Brief, at para. 123.

features in the cost of the port is consistent with the ILECs' contracts with their vendors.<sup>387</sup> Furthermore, Verizon stated in this proceeding that it would not propose vertical feature rates in Washington if this cost were already part of the port rate element.<sup>388</sup> Since the cost of vertical features is already included in port rates, we deny Verizon's proposal.

392 Because no party objected to other rates proposed by Verizon for any switching elements, we approve Verizon's methodology. However, Verizon must re-run its model after adjusting it to reflect the depreciation rates and common cost factors adopted in this order.

**f. ISDN Loop Extenders**

393 According to Verizon, CLECs should be able to provision ISDN BRI services to their end-users through the use of a basic 2-wire UNE loop.<sup>389</sup> However, when the loop does not comply with the technical parameters, then the ISDN BRI loop extender UNE is necessary to allow CLECs to provide service to their end-users. Verizon proposes recurring rates for ISDN loop extenders that apply only when required to facilitate the provisioning of ISDN BRI service.<sup>390</sup>

394 We find that Verizon's proposed methodology is reasonable. However, Verizon must show in a compliance filing that it has calculated costs for ISDN loop extenders in a manner that is consistent with the other changes that we have ordered for Verizon's cost models.

**g. Dedicated Transport**

395 Verizon proposes rates for three capacity-based categories of direct-trunked transport: 1) a voice grade facility (often called a DS-0 level facility); 2) a DS-1 level facility; and 3) a DS-3 level facility. Verizon also proposes rates for any required multiplexing, based on the following two types of multiplexing: 1) DS-1 to voice

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<sup>387</sup> UT-960369, Eighth Supplemental Order, at paragraph 280-281.

<sup>388</sup> TR at 2472-2473 and 2516.

<sup>389</sup> "BRI" is Basic Rate Interface. BRI provides users with 2 B-channels and one D-channel. The "B", or bearer, channels can carry up to 64kbps of voice or data traffic. The "D", or Data, channel can carry up to 16kbps of data that is typically used for network management operations.

<sup>390</sup> Verizon Brief, at para. 93. These rates can be found in Exhibit T-1190, at page 20.



grade; and 2) DS-3 to DS-1. The rate structure for the transport facilities is calculated on a per-central-office-termination basis as well as a per-airline-mile basis.<sup>391</sup>

396 The Joint CLECs argue that Verizon's DS-1 and DS-3 charges are overstated because they rely on Verizon's loop cost estimates, and that recurring rates for DS-1 and DS-3 transport should be revised.<sup>392</sup> They suggest that the Commission order Verizon to recalculate DS-1 costs using fiber instead of copper, and DS-3 costs using OC-12 and OC-48, instead of OC-3, technology. The Joint CLECs also suggest that an 85% fill factor should be applied.

397 Verizon believes that the modifications proposed by the Joint CLECs are based on the same flawed assumptions that they make in their proposed adjustments to Verizon's DS-1 and DS-3 loop costs. Verizon maintains that, for the reasons outlined above in the sections discussing Verizon's stand alone cost studies, the CLECs' modifications should be rejected.<sup>393</sup>

398 Indeed, the Commission has already rejected the arguments presented by the Joint CLECs regarding Verizon's DS-1 and DS-3 cost estimates. We continue to do so here. Verizon must show in a compliance filing that it has calculated costs for dedicated transport in a manner consistent with the changes we have ordered for Verizon's ICM and stand-alone cost studies.

#### **h. Tandem Switching**

399 Verizon proposes a TELRIC-based recurring rate for tandem switching on a per minute of use ("MOU") basis.<sup>394</sup> We find that Verizon's proposed methodology is reasonable. However, Verizon must show in a compliance filing that it has calculated costs for tandem switching in a manner consistent with the changes we have ordered for Verizon's ICM.

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<sup>391</sup> Verizon Brief at para. 94. These rates can be found in Exhibit T-1190, at page 23.

<sup>392</sup> Joint CLEC Brief, at para. 118.

<sup>393</sup> Verizon Reply Brief, at para. 124.

<sup>394</sup> Verizon Brief, at para. 95. These rates can be found in Exhibit T-1190, at page 21.

**i. Dark Fiber**

- 400 Verizon proposes a “per strand” recurring rate for a dark fiber UNE loop and associated distribution and feeder sub-loop elements. Verizon claims that the geographic cost variation of DS-3 loops does not support deaveraging, and as with DS-3 loops, Verizon does not propose to deaverage dark fiber rates.<sup>395</sup>
- 401 Verizon proposes recurring rates for dark fiber interoffice facilities (“IOF”)<sup>396</sup> on a “per termination” and “per airline mile” basis. Verizon argues that its proposed distance-sensitive rate accounts for geographic cost differences and does not proposed to deaverage these rates.<sup>397</sup>
- 402 The Joint CLECs claim that Verizon’s proposed dark fiber charges are significantly higher than the recurring charges for an unbundled loop and for dedicated transport (at least with respect to the rates for facilities per airline-mile) even though the underlying facilities are the same. The Joint CLECs suggest that the recurring charges for dark fiber should therefore be no higher than the two-wire analog loop rate when the fiber is to be used as a loop, and no higher than the interoffice dedicated DS-1 transport facility per airline-mile when the fiber is used for transport.<sup>398</sup>
- 403 Covad recommends that the Commission carefully examine the restrictive terms and conditions under which Verizon offers dark fiber before approving any costs. Covad claims that the only dark fiber Verizon is offering to CLECs is spare capacity that is subject to repossession by Verizon upon twelve months’ advance notice. Covad argues that Verizon should not recover any capacity-related dark fiber costs because Verizon has not, and will not, install any new fiber for CLECs. Covad claims that since Verizon is already recovering the costs for any unused spare fiber through application of a fill factor or utilization adjustment to its costs, inclusion of capacity costs (namely, the cost of the fiber, support structure, and placement) in the rates for dark fiber is improper. Covad claims that the recurring cost for Verizon’s dark fiber should include only the operations and maintenance costs of the fiber.<sup>399</sup>

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<sup>395</sup> Verizon Brief, at para. 96.

<sup>396</sup> Dark fiber IOF is any unused fiber strands existing between a fiber patch panel located within one Verizon central office and a fiber patch panel in the next Verizon central office through which the fiber is routed. Exhibit T-1190, at page 23.

<sup>397</sup> Verizon Brief, at para. 97.

<sup>398</sup> Joint Brief, at para. 120.

<sup>399</sup> Covad Brief, at page 11.

404 Verizon argues that the Joint CLECs' proposed recurring charges for dark fiber are unsubstantiated and should be rejected. Contrary to the Joint CLECs, Verizon claims that the underlying facilities are not the same, and are not used in the same manner. For example, the cost of a two-wire analog loop is based on a per-voice-grade-channel basis because some of the facilities used to provide that UNE are shared.<sup>400</sup> On a dark fiber loop, however, a single fiber is provided throughout the length of the loop. Thus, according to Verizon, a customer uses the entire fiber, and not just a fraction of the bandwidth traveling over it as is the case in "lit" facility services.<sup>401</sup>

405 Verizon opposes Covad's suggestion that capacity-related dark fiber costs should be excluded from Verizon's rates. According to Verizon, Covad has improperly applied a short-run approach to a long-run problem. Verizon avers that it makes no difference from a long-run, forward-looking cost perspective whether the customer's request for service causes the ILEC to purchase new capacity or to offer some of its existing capacity.<sup>402</sup>

406 We find no support for the Joint CLECs' assertion that an unbundled loop and dedicated transport both use the same underlying facility. The Joint CLECs fail to establish that the average size of a fiber cable in the loop is the same as the average size fiber cable used for interoffice transport.

407 We agree with Covad's argument that Verizon should not be permitted to charge a customer for spare facilities through the application of a fill rate and also to retain the right to reclaim the fiber after giving twelve months' notice of recovery. Verizon's current proposal essentially offers CLECs only spare capacity dark fiber. If Verizon retains its current terms and conditions for making dark fiber available, then it must remove all capacity costs from its calculations, as these costs are already accounted for by fill rates. In that instance, Verizon may seek recovery only of the operations and maintenance costs associated with the fiber. Verizon must also show in a

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<sup>400</sup> For example, a two-wire analog loop consists of either copper or a combination of copper and fiber (with associated DLC). The cost for such a loop is determined on a per voice grade channel basis. That is, on the copper portion, the cost is on a per pair basis and on the fiber portion the cost is expressed on a per DS-0 basis (i.e. based on a fraction of the total bandwidth traveling over a single fiber). Exhibit T-1174, at page 13-14.

<sup>401</sup> Verizon Reply Brief, at para. 125.

<sup>402</sup> Verizon Reply Brief, at para. 126.

compliance filing that it has calculated costs for dark fiber in a manner consistent with the changes we have ordered for Verizon's cost models.

**j. Sub-Loop Elements**

408 Verizon proposes rates for three separate sub-loop elements for both 2-wire and 4-wire UNE loops: 1) feeder; 2) distribution; and 3) drop. In addition, the company proposes feeder and distribution sub-loop categories for dark fiber.<sup>403</sup>

409 The feeder sub-loop is the facility that extends from a Verizon central office main distribution frame ("MDF") to a feeder distribution interface ("FDI"), which may be a cross-connect box or a digital loop carrier ("DLC"). The distribution facility extends from the FDI to, and including, the network interface device ("NID") at the customer's premises. The "drop," (which is defined for the provision of "one" line) extends from the pedestal or terminal serving the customer's premise to, and including, the NID at the customer's premises.<sup>404</sup>

410 Staff does not object to a separate rate for the drop as part of the sub-loop unbundling exercise if the Commission also reduces the cost of the unbundled loop previously established in UT-960369 by the amount of the drop rate. Staff states that it has little confidence in Verizon's ICM drop cost estimates. Accordingly, Staff suggests that the Commission apply Qwest's estimates to Verizon because of the general deficiencies of ICM and because Verizon has not conducted a study of drop lengths for Washington. Staff also expresses concern over Verizon's estimate of the feeder-distribution ratio of approximately 30% feeder facilities and 70% distribution facilities for all five density zones. Staff suggests that the ratio of feeder and distribution should be closer to a 50/50 split in dense urban areas, and that the amount of distribution investment would increase relative to feeder investment in less dense rural areas.<sup>405</sup>

411 The Joint CLECs object to using Verizon's cost model to develop sub-loop element rates based on the loop rates that the Commission established in the prior cost docket. The Joint CLECs contend that the appropriate methodology is to use the compliance

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<sup>403</sup> Verizon Brief, at para. 98. These rates can be found in Exhibit T-1190, at page 23.

<sup>404</sup> Verizon Brief, at para. 98.

<sup>405</sup> Staff Brief, at page 27.

runs on which the Commission relied to establish de-averaged loop rates, in order to ensure consistency between the rates established in both dockets.<sup>406</sup>

412 Verizon argues that the Commission should disregard the suggestions of the Joint CLECs because they rely on models that are not in the record of this proceeding.<sup>407</sup> Verizon also discredits Staff's recommendations concerning the feeder-distribution ratio because they rely on the Hatfield model. Verizon contends that this model is not in the record of this proceeding and previously has been rejected by this Commission for use in any proceeding to establish UNE rates.<sup>408</sup>

413 Verizon opposes Staff's recommendation to remove drop costs from the full loop rate established in UT-960369 if the Commission establishes a separate rate for the drop as part of the sub-loop, but offers no support for that argument. Verizon simply states that the models from the previous docket should be ignored in this proceeding, and that concerns over the validity of drop estimates produced by earlier models make such calculations suspect.<sup>409</sup> Verizon opposes Staff's suggestion to use Qwest's drop costs for Verizon, because there is no evidence that Verizon's drop cost estimates are inaccurate or that drop costs are the same for both companies.<sup>410</sup>

414 We reject the Joint CLECs' argument for using compliance runs from UT-960369 to establish recurring rates for sub-loop elements, because it relies on compliance runs and models that are not in the record of this proceeding.

415 We find persuasive Staff's argument that the ratio of feeder and distribution investment should be closer to 50/50 in dense urban areas, and we order Verizon to utilize Staff's proposed feeder and distribution ratios when calculating sub-loop element rates.<sup>411</sup>

416 We agree that Verizon's proposal to establish a separate rate element for the drop is reasonable provided that three conditions are met. First, Verizon must charge only one nonrecurring charge when CLECs order the distribution and drop portions of a loop at the same time. Second, Verizon must calculate distribution and drop rates that

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<sup>406</sup> Joint Brief, at para. 121.

<sup>407</sup> Verizon Reply Brief, at para. 127.

<sup>408</sup> Verizon Reply Brief, at para. 129.

<sup>409</sup> Verizon Reply Brief, at para. 131.

<sup>410</sup> Verizon Reply Brief, at para. 132.

are consistent with this order. For example, Verizon must use the loop and drop lengths and feeder/distribution ratios that we adopt in this order. Third, the cost to a CLEC for ordering feeder, distribution, and drop sub-loop elements must not exceed the cost of the loop previously established by the Commission.

**k. Intra-Building Riser Cables**

417 Inside wire typically consists of junction and utility boxes, riser cable, and horizontal distribution wiring within an apartment building, and can also include the loop facility within a campus, a commercial park, or a garden apartment building.<sup>412</sup> FCC Rule 51.319(a) requires ILECs to provide unbundled access to inside wiring owned by the ILEC.

418 Verizon proposes that inside wire costs (and prices) be established on a bona fide request (“BFR”) basis since these facilities are inherently location- or customer-specific, and no cost model can be expected to calculate reasonable average costs for them.<sup>413</sup>

419 The Joint CLECs raise concerns regarding fundamental discrepancies between Verizon’s and Qwest’s approach to pricing inside wiring. According to AT&T’s witness Natalie Baker, Qwest develops costs for intra-building riser cables as part of its distribution sub-loop element, yet Verizon contends that no cost study is capable of calculating reasonable costs.<sup>414</sup> The Joint CLECs did not state specific objections to Verizon’s proposal that costs be determined per BFR, but they state concerns that Verizon would seek to implement a complicated – and objectionable—rate design similar to Verizon’s New Jersey proposal, under the guise of the BFR process. The Joint CLECs propose that Verizon’s monthly recurring rate for the NID be used as a proxy for intrabuilding cable. They urge the Commission to address, in a separate proceeding, the milieu of issues surrounding inside wiring, including terms and conditions for access to inside wiring, and recurring costs of providing access.

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<sup>411</sup> Staff’s proposed feeder and distribution ratios are set forth at Exhibit T-1350, Table 1.

<sup>412</sup> *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98 Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696 (rel. November 5, 1999) (“UNE Remand Order”), at para. 170.

<sup>413</sup> Verizon Brief, at para. 102.

<sup>414</sup> TR 3502-3523.

420 Verizon accepts the Joint CLECs' proposal that a separate process be established to  
address all the issues surrounding the access to inside wiring.<sup>415</sup> In the meantime,  
Verizon is willing to use the recurring and nonrecurring rates the Commission has  
already established for access to Verizon's NIDs as proxy rates for house and riser  
cable on an interim basis, until conclusion of the proposed separate proceeding.<sup>416</sup>

421 We share the Joint CLECs' concerns regarding discrepancies between Verizon's and  
Qwest's proposals. Although Verizon believes that the rates should be location-  
specific, we are not convinced. For example, there is always a location-specific  
variation in the cost of service. This does not require that individual, customer-  
specific rates be set for every rate element.

422 We also note that there was significant uncertainty regarding the terms and conditions  
of ILEC compliance with FCC Rule 51.319(a) at the time of the Part B proceeding,  
and that the resolution of those issues affect the determination of relevant costs.  
Accordingly, the Commission will consider additional evidence regarding terms and  
conditions, the related costs of ILEC compliance with FCC Rule 51.319(a), and  
permanent rates. Further evidence will be received in either Part E or Docket No.  
UT-011219, and the Commission will request comments from the parties in both  
proceedings. In the interim, Verizon must use the recurring and nonrecurring rates  
the Commission has already established for access to Verizon's NIDs as proxy rates  
for house and riser cable.

## **I. UNE-P**

423 Verizon proposes that the rate for a given UNE-P should be the sum of the recurring  
rates for the individual UNEs to create the "platform" that is currently serving the  
end-use customer.<sup>417</sup>

424 This issue is not in dispute and the company's proposal is reasonable. We approve  
Verizon's methodology. However, Verizon must show in its compliance filing that it  
has calculated costs for the UNE-P in a manner consistent with the changes we have  
ordered for Verizon's ICM.

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<sup>415</sup> Verizon Brief, at para. 103.

<sup>416</sup> *Id.* Verizon's proposed interim rates are stated in Attachment A to its Post-Hearing Brief.

<sup>417</sup> Verizon Brief, at para. 108.

**m. Extended Enhanced Loops (“EELs**

425 An EEL is a combination of UNEs that facilitates the “extension” of an unbundled loop beyond the central office that serves an end-user. By using an EEL, the CLEC can avoid the need to collocate at every central office to gain access to the unbundled loops within each central office. FCC Rule 51.319(c)(1)(B) exempts ILECs that provide EELs in the top 50 metropolitan statistical areas (“MSAs”) from providing unbundled local switching to requesting CLECs when the CLEC intends to serve a customer with four or more voice grade (DS-0) equivalents or lines.<sup>418</sup>

426 Verizon proposes that the rate for a given EEL should be the sum of the recurring rates for the individual UNEs that are required to provision of the requested EEL. Verizon claims that it will offer EELs in the “Seattle – Bellevue - Everett” MSA. According to Verizon this is a “top 50 MSA,” and the FCC Rule 51.319 exemption will apply.<sup>419</sup>

427 This issue is not in dispute. The company’s proposal is reasonable, and we approve Verizon’s methodology. However, Verizon must show in a compliance filing that it has calculated costs for EELs in a manner consistent with the changes we have ordered for Verizon’s ICM.

**n. Customized Routing and OS/DA**

428 The FCC defines operator services (“OS”) as any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call. Directory assistance (“DA”) is defined as a service that allows subscribers to retrieve telephone numbers of other subscribers.<sup>420</sup>

429 Verizon argues that it is not required to provide operator services and directory assistance (“OS/DA”) on an unbundled basis in Washington because it offers customized routing to CLECs in all areas of the state, subject only to site-specific

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<sup>418</sup> Verizon Brief at para. 109. The ILECs objected to providing CLECs with EELs because they did not want to lose special access revenue. However, the FCC has effectively required the provision of EELs in exchange for not requiring the ILECs to provide switching in the largest metropolitan serving areas.

<sup>419</sup> Verizon Brief, at para. 109.

<sup>420</sup> UNE Remand Order, at para. 443.



technical limitations.<sup>421</sup> According to Verizon, the UNE Remand Order, at paragraph 441, states that where an ILEC provides customized routing to a CLEC as part of the unbundled switching element, lack of access to OS/DA functions does not diminish the CLEC's ability to provide the service it seeks to offer. Accordingly, Verizon argues that it is not required to offer OS/DA at all within Washington. Because access to OS/DA as a UNE is not mandated in Washington state, Verizon states that it will offer OS/DA services at market-based rates.<sup>422</sup>

430 Verizon proposes to respond to requests on a case-by-case basis through the BFR process.<sup>423</sup> According to Verizon, the company has not received a single request for customized routing since it became available in 1996. Thus, Verizon contends that it would not be appropriate for the Commission to establish customized routing costs and prices in this proceeding.

431 We note that there is no opposition to Verizon's proposed pricing of OS/DA and customized routing in this Part B proceeding. However, we also note that one or more parties oppose a similar proposal by Qwest in Part D of this proceeding, and a final decision on that issue should be made later this year. Verizon's proposal appears more reasonable than establishing specific costs and prices, but it is not readily apparent whether there is any basis to differentiate Verizon's circumstances from Qwest's. Nor has any party addressed that matter in either Part B or Part D. Accordingly, we approve Verizon's proposal to offer OS/DA at market-based rates and to provide customized routing to requesting CLECs on a case-by-case basis, but we are prepared to reconsider this matter if petitioned to do so in the future.

**o. Packet Switching**

432 With one limited exception, the FCC expressly declined to require unbundling of packet switching functionality or technologies. 47 C.F.R. 51.319(c)(3)(B) states:

An incumbent LEC shall be required to provide nondiscriminatory access to unbundled packet switching capability only where each of the following conditions are satisfied. The requirements in this section relating to packet switching are not effective until May 17, 2000.

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<sup>421</sup> Verizon Brief, at para. 110.

<sup>422</sup> Verizon Brief, at para. 110.

<sup>423</sup> Verizon Brief, at para. 111.

- (i) The incumbent LEC has deployed digital loop carrier systems, including but not limited to, integrated digital loop carrier or universal digital loop carrier systems; or has deployed any other system in which fiber optic facilities replace copper facilities in the distribution section (e.g., end office to remote terminal, pedestal or environmentally controlled vault);
- (ii) There are no spare copper loops capable of supporting xDSL services the requesting carrier seeks to offer;
- (iii) The incumbent LEC has not permitted a requesting carrier to deploy a Digital Subscriber Line Access multiplexer in the remote terminal, pedestal or environmentally controlled vault or other interconnection point, nor has the requesting carrier obtained a virtual collocation arrangement at these sub-loop interconnection points as defined by paragraph (b) of this section; and
- (iv) The incumbent LEC has deployed packet switching capability for its own use.

433 Verizon does not propose specific rates for packet switching because it claims that none of the four aforementioned conditions is present in Washington. Verizon proposes to respond to requests on a case-by-case basis through the BFR process.<sup>424</sup>

434 Although the FCC does not require states to establish TELRIC rates for packet switching unless all four of the aforementioned conditions are met, the FCC does not prevent state commissions from establishing such rates on their own. Rather, the FCC believes “that section 251(d)(3) grants state commissions the authority to impose additional obligations upon incumbent LECs beyond those imposed by the national list, as long as they meet the requirements of section 251 and the national policy framework instituted in this Order.”<sup>425</sup>

435 We believe that packet switching meets these criteria. Furthermore, we believe requiring unbundled packet switching may be necessary to fulfill our obligations

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<sup>424</sup> Verizon Brief, at para. 112.

<sup>425</sup> UNE Remand Order, at para. 159.

under Section 706 of the Telecom Act,<sup>426</sup> given that Verizon is serving a growing percentage of its customers through DLC facilities.<sup>427</sup>

436 We are concerned that, absent unbundled packet switching, CLECs who seek to offer advanced telecommunications services like DSL will be forced to collocate DSLAMs and splitters at a large number of remote terminals in order to serve the same number of customers previously served by a single set of electronics collocated at a single central office. Since CLECs serve a relatively small share of the DSL market, such a proposition may significantly impair a CLEC's ability to offer advanced telecommunications services.<sup>428</sup>

437 We recognize Verizon's position that the company does not currently remote-locate packet switching and that there is therefore no competitive advantage due to economies of scale. However, if Verizon subsequently provides remote packet switching, and if the four conditions of 47 C.F.R. 51.319(c)(3)(B) are met, then there will be an unreasonable delay before the functionality associated with unbundled packet switching will be made available to CLECs unless rates are established beforehand.

438 Therefore, in the PartE proceeding, the Commission will consider evidence regarding Verizon's costs to provide unbundled packet switching in order to establish relevant rates. At the same time, we will consider arguments regarding the legal standards that must be met in order for the Commission to exercise our authority to impose unbundled packet switching additional obligations upon incumbent LECs.

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<sup>426</sup> Sec 706 states: "(a) IN GENERAL- The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."

<sup>427</sup> This Commission has previously expressed a willingness to require UNEs that are not mandated by the FCC. *See* UT-960369, Seventeenth Supplemental Order, at para.246.

<sup>428</sup> The FCC recognized that significant differences in economies of scale might inhibit meaningful competition. *See* UNE Remand Order, at para. 89-91.

**p. Signaling and Call Related Databases**

439 Verizon does not propose prices for CLEC access to the 911 or E-911 databases, or  
access to the GTE advanced intelligent network (“AIN”) service creation  
environment and associated databases. Rather, Verizon proposes to respond to  
requests on a case-by-case basis through the BFR process.<sup>429</sup>

440 Even though Verizon’s position is not contested by other parties, the Commission  
cannot accept Verizon’s proposal. FCC Rule 319(e) requires ILECs to provide access  
to signaling networks, call-related databases (including 911, E-911, and AIN  
databases), and service management systems on an unbundled basis. Rates for these  
network elements therefore must be cost-based.<sup>430</sup> Verizon’s proposal to establish  
rates for these UNEs on a case-by-case basis does not comport with the FCC’s  
directive. Accordingly, Verizon must file cost studies for unbundled signaling and  
call related databases in the Part E proceeding.

**q. Fiber Feeder Sub Loops**

441 Verizon’s proposed rates for fiber feeder sub-loops are contained in Attachment A to  
the company’s brief.<sup>431</sup>

442 No party opposed Verizon’s proposed rates for fiber feeder sub-loops. The  
Commission finds the proposal reasonable, and we approve Verizon’s methodology.  
Verizon must make a compliance filing that calculates costs for fiber-fed loops in a  
manner consistent with the adjustments that we have ordered for Verizon’s ICM and  
stand alone cost studies.

**r. Pricing for Line Sharing over Fiber-Fed Digital Line Carrier (“DLC”)**

443 Covad argues that the Commission should implement “plug-and-play” (as discussed  
in the section on DSL issues) on either an interim or permanent basis to ensure  
competitive parity and nondiscriminatory access to customers served by DLC fed

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<sup>429</sup> Verizon Brief, at para. 114.

<sup>430</sup> UNE Remand Order, at para. 392 and 412.

<sup>431</sup> Verizon Brief, at para. 115.

loops. Covad proposes an interim rate for plug-and-play equal to the UNE rates established for line sharing in the Thirteenth Supplemental Order.<sup>432</sup>

444 The Commission has not yet determined whether ILECs are required to allow DLECs to plug in their line cards to the ILECs' remotely located DSLAMs. There is therefore no need for us to rule at this time regarding interim or permanent prices for plug-and-play.

#### IV. FINDINGS OF FACT

445 Having discussed above in detail the written testimony and the documentary evidence concerning all material matters, and having stated our findings of fact and conclusions of law in the text of the Order, the Commission now incorporates those portions of the preceding detailed findings and conclusions by this reference.

446 (1) The Washington Utilities and Transportation Commission is an agency of the State of Washington, vested by statute with authority to regulate rates, rules, regulations, practices, accounts, securities, and transfers of public service companies, including telecommunications companies.

447 (2) Qwest Corporation and Verizon Northwest, Inc., are each engaged in the business of furnishing telecommunications service within the state of Washington as a public service company.

#### V. CONCLUSIONS OF LAW

448 The Washington Utilities and Transportation Commission has jurisdiction over the subject matter of this proceeding and all parties to this proceeding.

449 (1) Qwest and Verizon must file appropriate rate tariffs that are either proposed and uncontested or approved without change, consistent with this Order.

450 (2) Qwest and Verizon must file rate tariffs and supporting compliance filings for each network rate element that is rejected as proposed, consistent with this Order.

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<sup>432</sup> Covad Brief, at page 21.

- 451 (3) The rates established by our findings are just and reasonable in accordance with the pricing standards stated in Section 252(d) of the Telecommunications Act of 1996, and are fair, just, reasonable, and sufficient in accordance with RCW 80.36.080.

## VI. ORDER

452 The Commission hereby orders as follows:

453 The rates proposed by Qwest and Verizon, respectively, are approved, in part, and rejected, in part, consistent with our findings and conclusions as follows:

- 454 (1) As to each network rate element that is uncontested or is approved without change, Qwest and Verizon shall file tariffs consistent with this Order no later than eight business days after the service date of this Order, with a stated effective date of twelve business days after the date of filing, unless additional time is specifically requested and granted by letter of the Commission's executive secretary. The tariff filings must be limited to uncontested rate elements or those specifically authorized in this Order.
- 455 (2) As to each network rate element that is rejected as proposed, Qwest and Verizon shall file rate tariffs and supporting compliance filings consistent with this Order no later than eight business days after the service date of this Order. Other parties may respond to those items no later than twelve business days after the service date of this Order, unless additional time is specifically requested and granted by letter of the Commission's executive secretary. The Commission will enter an order approving or disapproving the subsequent filings or giving further instructions.
- 456 (3) A copy of each filing with the Commission must be served on counsel for other parties so that it is received on the date filed with the Commission.
- 457 (4) Each compliance filing must be accompanied by a brief description of what is accomplished by the filing, how it complies with the terms of this Order, and specifically must identify each input modified, including the exhibit, page, and line number where the modification was made.

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- (5) The Commission retains jurisdiction over all matters and the parties in this proceeding to effectuate the provisions of this Order.

Dated at Olympia, Washington and effective this 21st day of June, 2002.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

MARILYN SHOWALTER, Chairwoman

RICHARD HEMSTAD, Commissioner

**NOTICE TO PARTIES: This is a final order of the Commission. In addition to judicial review, administrative relief may be available through a petition for reconsideration, filed within 10 days of the service of this order pursuant to RCW 34.05.470 and WAC 480-09-810, or a petition for rehearing pursuant to RCW 80.04.200 or RCW 81.04.200 and WAC 480-09-820(1).**