

1 software performance, adapting software to changes in its environment, and  
2 correcting operational faults”<sup>140</sup> would be 15% of the initial development costs.  
3 Verizon does not track costs for the initial development separately from these  
4 supposed maintenance costs;<sup>141</sup> to compensate for this omission, Verizon has  
5 assumed a portion of its 1998 incurred access to OSS costs were in fact the costs  
6 of upgrading and maintaining the systems built in 1996 and 1997, and that a  
7 portion of its 1999 incurred access to OSS costs were in fact the costs of  
8 upgrading and maintaining the systems built in 1996, 1997 and 1998. Verizon  
9 used the assumed 15% maintenance factor to approximate these “ongoing”  
10 expenses. Verizon classified the remainder of the expenditures for those years as  
11 one-time development costs.

12 **Q. DOES IT MAKE SENSE TO RECOVER SOFTWARE MAINTENANCE**  
13 **EXPENSES THROUGH AN EXPLICIT OSS SURCHARGE?**

14 A. No. Once again, Verizon is attempting to impose the costs of a multi-provider  
15 environment solely on the end user of new entrants. Software maintenance is a  
16 normal part of Verizon’s business and should be treated as such.<sup>142</sup> Indeed, given  
17 the manner in which Verizon has calculated the costs of ongoing maintenance, as

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<sup>140</sup> *Id.* at 288.

<sup>141</sup> *Id.* at 276.

<sup>142</sup> As another incumbent, Pacific Bell (a subsidiary of SBC), explained when discussing similar costs: “[u]pgrades or enhancements to capabilities were not included in Pacific’s implementation cost filing.... These upgrades and enhancements would be part of the normal course of business.” Pacific Bell Response to AT&T Set 5, No. 88, Implementation Cost Phase of California Public Utilities Commission’s Local Competition Docket R. 95-04-043, I. 95-04-044.

1 a fixed amount keyed to already-incurred development costs, implies that those  
2 costs will not vary with competitive local exchange carrier demand. Furthermore,  
3 Verizon does not track these maintenance costs separately from other OSS  
4 expenditures. In many cases, Verizon modified its existing systems to  
5 accommodate multiple providers. Work on the core systems accounts for a  
6 substantial portion of Verizon's initial development costs, approximately 78%. It  
7 is entirely unclear how Verizon can now reasonably segregate some portion of the  
8 cost of maintaining its core systems and assign it solely to competitors.

9 Even assuming that Verizon's approach had appropriately identified the  
10 causers of the costs it is intended to recover – which it has not – Verizon's  
11 proposed mechanism to recover those costs is clumsy and inappropriate at best.  
12 Verizon asks this Commission to fix an Access to OSS charge for ten years into  
13 the future and beyond, based on a speculative approximation of costs it does not  
14 (and perhaps cannot) track separately, without any regard for changing  
15 circumstances over that time period such as efficiency or productivity gains.  
16 Verizon has not even, as far as we are aware, proposed any mechanism to true-up  
17 recovery based on actual recovery.

1    **Q.    HOW HAS VERIZON ESTIMATED ONGOING CAPITAL COSTS**  
2    **ASSOCIATED WITH ACCESS TO OSS?**

3    A.    Verizon based its capital investment on actual purchases for 1996 and 1997, and  
4    budget estimates for 1998 and 1999 expenditures that were made in late 1998.<sup>143</sup>

5    **Q.    IN WHAT WAYS DO VERIZON’S REPORTED ONGOING CAPITAL**  
6    **COSTS FOR ACCESS TO OSS EXCEED EFFICIENT, FORWARD-**  
7    **LOOKING COSTS?**

8    A.    As we note above, Verizon has based its “forward-looking” costs on actual  
9    purchases (that is, its embedded network) and forecasts estimates that were made  
10   in late 1998. These estimates have nothing to do with the forward-looking  
11   investment that access to OSS might require. Moreover, forward-looking costs  
12   are the costs that an efficient provider would incur to meet the total demand for a  
13   product, service or function using the best available technology *costed out at the*  
14   *cost for the pricing period*, not some vintaged cost. Where prices are either rising  
15   or falling significantly over time, use of vintaged cost estimates will dramatically  
16   misstate forward-looking costs. Verizon’s own testimony quantifies a substantial  
17   decrease in OSS computer costs from 1996 through 1999 (from \$3,000 per GIG to  
18   \$600 per GIG and from \$25,000 per MIPS to \$10,000 per MIPS, for 1996 and  
19   1999 respectively).<sup>144</sup> These reductions apply to mainframe equipment; similar  
20   reductions have occurred for mid-range equipment such as that included in the  
21   OSS interface or gateway. According to Verizon’s cost panel, Verizon did at least

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<sup>143</sup> Verizon Maryland’s Response to AT&T 6-45, Public Service Commission of Maryland Case 8879.

<sup>144</sup> Verizon Cost Panel Direct. at 286.

1 cost some of the hardware at 1999 prices.<sup>145</sup> However, applying the forward-  
2 looking methodology, Verizon should have costed out computer equipment at  
3 2002 prices (or, at the very least, the best prices of 2001), rather than reflecting the  
4 actual prices paid for equipment purchased in earlier years.

5 Furthermore, Verizon's study fails to demonstrate that the costs identified  
6 are necessary to serve actual and reasonably expected demand.

7 **Q. DOES IT MAKE SENSE TO RECOVER VERIZON'S ESTIMATED**  
8 **CAPITAL EXPENSES THROUGH AN EXPLICIT OSS SURCHARGE?**

9 A. No. It is difficult to isolate the computer investment that is used exclusively to  
10 meet competitor demand, and Verizon has not provided enough information to  
11 really do so. Verizon acknowledges, for example, that "[s]ince mainframe  
12 equipment is purchased in bulk, it is not always possible to correlate actual  
13 purchases with the demand that caused the purchase."<sup>146</sup>

14 **Q. HOW SHOULD VERIZON RECOVER ITS ONGOING OSS COSTS?**

15 A. For all of the reasons we have enumerated, the ongoing costs of the systems  
16 developed to allow 4access to Verizon's OSS should not be handled as a part of  
17 Verizon's competition-onset costs or through a separate OSS surcharge. Verizon  
18 should capture these expenses in the same way it captures all normal forward-  
19 looking recurring OSS expenses, through its annual cost factors.

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<sup>145</sup> *Id.*

<sup>146</sup> Verizon Maryland's Response to AT&T 6-45, Public Service Commission of Maryland Case 8879.

1 Verizon has adjusted its “other support” factor to account for these  
2 ongoing costs. Therefore, in our restatement of the “other support” factor,  
3 presented elsewhere in this testimony, we have reversed Verizon’s proposed  
4 adjustment to that factor, which has the effect of increasing the factor. We  
5 recommend that the Commission remove the “ongoing” portion of Verizon’s  
6 proposed Access to OSS charge entirely and adopt an “other support” factor of  
7 **[BEGIN VERIZON PROPRIETARY] \*\*\* [END VERIZON**  
8 **PROPRIETARY]** All of the restatements presented in this testimony are  
9 calculated using that “other support” factor.<sup>147</sup>

10 **Q. SHOULD THE COMMISSION RELY ON VERIZON’S ESTIMATES OF**  
11 **ONGOING ACCESS TO OSS COSTS?**

12 A. No. If the Commission were – inappropriately – to allow Verizon to impose its  
13 ongoing development cost for OSS access solely on new entrants, it cannot rely on  
14 Verizon’s cost estimates. Verizon’s estimate of the ongoing software costs suffers  
15 from the same deficiencies as its estimate of one-time development costs, in  
16 particular because the maintenance costs are merely calculated as a percentage of  
17 the initial development costs. To the extent that Verizon has included  
18 inappropriate costs in its estimates of one-time costs, they would inflate the  
19 purported ongoing maintenance costs. Verizon has also not attempted to identify

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<sup>147</sup> Consequently, if the Commission were to reject our recommendation regarding the ongoing costs of OSS access, then it must also re-adjust the “other support” factor to avoid double recovery of those costs and recalculate all of the UNE prices. In that case, the “other support” factor would be **[BEGIN VERIZON PROPRIETARY] \*\*\* [END VERIZON PROPRIETARY]**

1           which systems might reasonably be expected to need continuing updating and/or  
2           maintaining. For example, systems that have become obsolete since their  
3           development as a result of either one of Verizon's mergers or the evolution of the  
4           market will presumably not need to be maintained in the future.

5   **Q.   YOU INDICATED ABOVE THAT VERIZON HAS NOT ELIMINATED**  
6   **THE POSSIBILITY OF DOUBLE-RECOVERY THROUGH ITS "ACCESS**  
7   **TO OSS" CHARGE. WHY IS VERIZON'S EXCLUSION OF "ONGOING**  
8   **MAINTENANCE" COSTS FROM THE "OTHER SUPPORT" FACTOR**  
9   **INSUFFICIENT TO PRECLUDE DOUBLE-RECOVERY OF "ACCESS**  
10 **TO OSS" COSTS?**

11   A.   Verizon has estimated that a portion of the OSS costs incurred in 1999 (the year  
12       on which the other support calculation was based) were actually costs necessary to  
13       maintaining the systems that were developed in earlier years (*i.e.*, 1996, 1997 and  
14       1998). The remaining costs Verizon attributes to "one-time development."  
15       Verizon has excluded the ongoing maintenance portion of the OSS costs from  
16       Information Management expenses that are included in the other support factor  
17       calculation. Verizon was forced to estimate the portion of the costs that were  
18       ongoing maintenance expenses, because, as the Verizon's cost panel indicated,  
19       "[t]he mechanisms Verizon VA used to track the expenses associated with access  
20       to OSS do not differentiate between development and maintenance."<sup>148</sup> How is it,  
21       then, that the maintenance costs could have been in the expenses used to calculate  
22       the other support factor, *if the one-time development expenses were not included*  
23       *as well?*

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<sup>148</sup> Verizon Cost Panel Direct at 276.

1           We believe that Verizon’s cost panel is admitting, here, that the one-time  
2           and ongoing costs are tracked in the same accounts, and as such would have both  
3           been captured in the same information management expenses that Verizon used to  
4           develop its other support factor. Verizon is therefore attempting to double-  
5           recover its costs of Access to OSS development. At a minimum, the Commission  
6           must direct Verizon to remove the one-time OSS development costs from the  
7           information management costs used in its factor development. Removal of the  
8           \*\*\* VERIZON PROPRIETARY \$80.5 Million \*\*\*END PROPRIETARY in  
9           one-time OSS development costs that Verizon has estimated it incurred in 1999<sup>149</sup>  
10          from the Information Management component would lower Verizon’s “other  
11          support” factor (with no other changes) from [BEGIN VERIZON  
12          PROPRIETARY] \*\*\* [END VERIZON PROPRIETARY]

13   **Q.   WHAT IS YOUR RECOMMENDATION REGARDING VERIZON’S**  
14   **PROPOSED ACCESS TO OSS COST STUDY?**

15   A.   Any costs that Verizon expects to apply only to its competitors must be  
16          scrutinized particularly carefully. Therefore, if the Commission were to reject our  
17          proposal of competitively neutral recovery and consider allowing Verizon to  
18          impose an Access to OSS charge, the Commission should hold Verizon to a strict  
19          burden of proof in justifying recovery claims for modifications to Verizon’s OSS

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<sup>149</sup> These costs need to be removed from the factor development, regardless of whether the Commission adopts our recommendation of competitively neutral recovery of competition-onset charges. If the Commission allows the OSS charge, then this is double-recovery; if the Commission accepts the idea of competitively neutral recovery, then these costs must be removed in order to achieve it.

1 in connection with UNEs. Verizon has not met this burden. Therefore, we  
2 recommend that Commission reject Verizon's proposed charge unless and until it  
3 has provided the necessary documentation.

4 **VII. VERIZON'S PROPOSED DAILY USAGE FILE MESSAGE RECORDING**  
5 **CHARGE FAR OVER-RECOVERS ITS COSTS.**

6 **Q. WHAT IS THE DAILY USAGE FILE?**

7 A. The Daily Usage File ("DUF") provides competitors with records of their  
8 customers' intraLATA local and toll usage detail for billing purposes. Each call is  
9 recorded as a "message." Verizon has proposed several DUF charges for  
10 recording and transmitting the DUF messages, the most significant of which is a  
11 per-message "Message Recording" charge.

12 **Q. IS VERIZON'S PROPOSED DUF "MESSAGE RECORDING" CHARGE**  
13 **REASONABLE?**

14 A. No. Verizon's proposed charge of \$0.0015 per message represents a huge  
15 increase over the current price in Virginia of \$.000246 per message (which is  
16 itself inflated). Verizon's proposed price here is six times higher than the current  
17 price. It is also well out of proportion with the adopted prices in other states,  
18 calling its reasonableness into question.<sup>150</sup> If one assumes approximately 200

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<sup>150</sup> The current price that Verizon charges in Maryland is \$0.000267 per message and in Pennsylvania is \$.000261 per message, respectively only 17.8% and 17.4% of the charge proposed for Virginia.

1           messages per line per month, this charge would add \$0.30 per line per month to  
2           the cost of a loop.

3   **Q.   WHAT DRIVES THE INCREASE IN VERIZON’S PROPOSED DUF**  
4   **“MESSAGE RECORDING” CHARGE?**

5   A.   Verizon has assumed over **\*\*\*VERIZON PROPRIETARY** \$1.1 million **END**  
6   **PROPRIETARY\*\*\*** in purported “CLEC support labor” charges.<sup>151</sup> Verizon  
7   attributes this cost to almost 15 support employees who monitor and manage the  
8   product, as well as manually handle errors in the automated processes.<sup>152</sup> These  
9   unsubstantiated costs account for 99% of the costs that Verizon seeks to recover  
10   in its per-message recording charge.

11 **Q.   IS THIS LEVEL OF CLEC SUPPORT COSTS APPROPRIATE?**

12 A.   No. Verizon has certainly miscalculated the “support” costs associated with each  
13   DUF message. Moreover, including these supposed labor costs in the per-  
14   message DUF charge would likely double-recover Verizon’s costs. The types of  
15   costs Verizon has included here are the same types of costs it claims to be  
16   recovering through its proposed annual cost factors.<sup>153</sup> As far as we can tell,

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<sup>151</sup> Verizon VA Exhibit Part F-3, Tab 4.3.

<sup>152</sup> Verizon MD Response to AT&T 6-10 in Public Service Commission of Maryland Case 8879. Verizon has not supplied sufficient data to enable us to determine why so many employees are required for this process, if those employees are actually dealing primarily with data errors in some manner, running some sort of programs, *etc.* In other words, Verizon has made no effort to establish that this level of manual effort, which it would impose as a cost on competitors but would not incur as part of its own cost for retail operations, is necessary, efficient or reasonable.

<sup>153</sup> See, e.g., Verizon Cost Panel Direct at 64 for a discussion of “customer care” expenses.

1 Verizon has made no attempt to remove such costs from the expenses it uses to  
2 develop its recurring cost factors, so these costs may be recovered twice under  
3 VZ's cost construct.

4 **Q. HOW HAS VERIZON MISCALCULATED THE "CLEC SUPPORT"**  
5 **COSTS ASSOCIATED WITH EACH DUF MESSAGE?**

6 A. Verizon intends to apply the DUF Message Recording for each exchange message  
7 interface record (*i.e.*, each message). However, when calculating the per-message  
8 charge, Verizon did not use the total message demand to which its charge would  
9 be applied. Verizon spread the support costs over its projected Customer Billing  
10 Organization ("CBO") message demand.<sup>154</sup> Verizon has described this demand as  
11 representing the "annual number of errors/messages the [CLEC Support]  
12 employees handle."<sup>155</sup> Thus, this demand seems to represent only the messages  
13 that require manual handling. Verizon should have spread the support costs, if  
14 indeed they were appropriate at all, over the entire universe of messages,  
15 including those that did not require manual intervention. This error results in  
16 extremely inflated costs per message.

17 Verizon assumed a CBO annual message demand of **[BEGIN VERIZON**  
18 **PROPRIETARY] \*\*\* [END VERIZON PROPRIETARY]** However, Verizon  
19 records many times that number of messages in a year. For example, Verizon

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<sup>154</sup> Verizon VA Exhibit Part F-3, Tab 4.3.

<sup>155</sup> Verizon Maryland Response to AT&T 6-12, Public Service Commission of Maryland Case 8879. *See also* Verizon Maryland Response to AT&T 6-15, in which Verizon (footnote continued)

1 assumed that [BEGIN VERIZON PROPRIETARY] \*\*\* [END VERIZON  
2 PROPRIETARY] messages will be transmitted using the Network Data Mover  
3 per year. This is over twenty times the number of “CBO messages.” Using  
4 Verizon’s projected resale and UNE platform/combination demand<sup>156</sup> and  
5 assuming that each resale loop and UNE platform has approximately 200  
6 messages per line per month, the levelized total annual number of messages  
7 recorded would be something like [BEGIN VERIZON PROPRIETARY] \*\*\*  
8 [END VERIZON PROPRIETARY] If Verizon applied its proposed Message  
9 Recording to each, it would recover over twenty-five times its estimated support  
10 costs, turning this function into a profit center and creating hurdles for its  
11 competitors at the same time.

12 Correcting Verizon’s proposed Message Recording charge for this error,  
13 along with corrections to Verizon’s factors discussed elsewhere in this testimony,  
14 results in a per-message charge of \$0.00007.

15 **Q. SHOULD THE COMMISSION ALLOW RECOVERY OF EVEN A**  
16 **PROPERLY ADJUSTED LEVEL OF VERIZON’S CLAIMED DUF COST**  
17 **PER MESSAGE?**

18 A. No. Even adjusted so that it would properly reflect Verizon’s proposed per  
19 message application, any level of DUF per message charge will probably result in  
20 discriminatory, above-cost prices for all UNE and resale usage. As we noted

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states that the “CBO annual messages represents the work handled by the CBO work group that support (sic) the DUF product.”

<sup>156</sup> Verizon Exhibit Part F-5, WKP II.

1           above, there is no reason to believe that employee expenses for routine business  
2           operations such as usage data processing are not already included in the expense  
3           loading factors that Verizon applied to the switching UNE and other elements.  
4           Unless Verizon *demonstrates* otherwise, the Commission should therefore assume  
5           that this cost is already recovered in the switching UNE calculation. Moreover,  
6           the Commission should not allow Verizon to impose any extra cost on  
7           competitors simply to hand over usage data unless Verizon can show that the  
8           process it is using is as efficient as the process that it uses and considered in  
9           developing its retail service.

10   **Q.    DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?**

11   **A.    Yes.**

I, MICHAEL R. BARANOWSKI hereby swear and affirm that the foregoing rebuttal testimony was prepared by me or under my direct supervision or control and is true and accurate to the best of my knowledge and belief.

Signed:

Michael R. Baranowski

I, Terry L. Murray, hereby swear and affirm that the foregoing rebuttal testimony was prepared by me or under my direct supervision or control and is true and accurate to the best of my knowledge and belief.

Signed:

Terry L. Murray

I, Catherine E. Pitts, hereby swear and affirm that the foregoing rebuttal testimony was prepared by me or under my direct supervision or control and is true and accurate to the best of my knowledge and belief.

Signed:

Catherine E. Pitts

I, Joseph P. Riolo, hereby swear and affirm that the foregoing rebuttal testimony was prepared by me or under my direct supervision or control and is true and accurate to the best of my knowledge and belief.

Signed:

A handwritten signature in black ink, appearing to read "Joseph P. Riolo". The signature is written in a cursive style with a large, looping initial "J" and "R".

I, Steven E. Turner hereby swear and affirm that the foregoing rebuttal testimony was prepared by me or under my direct supervision or control and is true and accurate to the best of my knowledge and belief.

Signed:

Steven E. Turner



<b>Unbundled Loop</b>			
2 Wire Basic Unbundled Loop Density Cell 1	\$	19.49	\$ 5.13
2 Wire Basic Unbundled Loop Density Cell 2	\$	29.69	\$ 7.54
2 Wire Basic Unbundled Loop Density Cell 3	\$	48.93	\$ 12.07
2 Wire Basic Unbundled Loop - State Average	\$	25.12	\$ 6.46
4 Wire & 4Wire Customized Specified Signalling Loop Density Cell 1	\$	59.94	\$ 20.12
4 Wire & 4Wire Customized Specified Signalling Loop Density Cell 2	\$	80.95	\$ 25.35
4 Wire & 4Wire Customized Specified Signalling Loop Density Cell 3	\$	117.87	\$ 33.68
4 Wire Wire Customized Specified Signalling Loop - Statewide Average	\$	71.12	\$ 22.77
2 Wire Customer Specified Signalling Density Cell 1	\$	27.45	\$ 7.16
2 Wire Customer Specified Signalling Density Cell 2	\$	37.89	\$ 9.69
2 Wire Customer Specified Signalling Density Cell 3	\$	56.60	\$ 14.07
2 Wire Customer Specified Signalling Statewide Average	\$	33.06	\$ 8.49
ISDN BRI Density Cell 1	\$	24.83	\$ 6.10
ISDN BRI Density Cell 2	\$	35.31	\$ 8.49
ISDN BRI Density Cell 3	\$	54.51	\$ 13.06
ISDN BRI Statewide Average	\$	30.53	\$ 7.42
Digital 4 Wire (56&64 Kbps) Density Cell 1	\$	63.58	\$ 22.31
Digital 4 Wire (56&64 Kbps) Density Cell 2	\$	85.93	\$ 28.21
Digital 4 Wire (56&64 Kbps) Density Cell 3	\$	124.71	\$ 37.43
Digital 4 Wire (56&64 Kbps) Statewide Average	\$	75.40	\$ 25.27
DS1/ISDN PRI Loop - Density Cell 1	\$	134.88	\$ 68.38
DS1/ISDN PRI Loop - Density Cell 2	\$	166.61	\$ 78.74
DS1/ISDN PRI Loop - Density Cell 3	\$	184.04	\$ 84.42
DS1/ISDN PRI Loop Statewide Average	\$	142.22	\$ 70.77
DS3 Loop - Statewide Average	\$	1,404.10	\$ 860.49
<b>Unbundled Sub-Loop Arrangements</b>			
Sub Loop Distribution - 2 Wire - Density Cell 1	\$	9.36	\$ 2.17
Sub Loop Distribution - 2 Wire - Density Cell 2	\$	17.37	\$ 3.76
Sub Loop Distribution - 2 Wire - Density Cell 3	\$	31.07	\$ 6.63
Sub Loop Distribution - 4 Wire - Density Cell 1	\$	18.45	\$ 4.16
Sub Loop Distribution - 4 Wire - Density Cell 2	\$	34.51	\$ 7.36
Sub Loop Distribution - 4 Wire - Density Cell 3	\$	61.91	\$ 13.12
Sub Loop Feeder - DS1 - Density Cell 1	\$	118.45	\$ 64.91
Sub Loop Feeder - DS1 - Density Cell 2	\$	132.40	\$ 71.56
Sub Loop Feeder - DS1 - Density Cell 3	\$	135.75	\$ 73.40
Subloop Feeder - DS3 Density Cell Statewide Average	\$	1,350.60	\$ 847.14
Off Premise Extension Unbundled Loop Density Cell 1	\$	19.49	\$ 5.13
Off Premise Extension Unbundled Loop Density Cell 2	\$	29.69	\$ 7.54
Off Premise Extension Unbundled Loop Density Cell 3	\$	48.93	\$ 12.07
Off Premise Extension Unbundled Loop Statewide Average	\$	25.12	\$ 6.46
<b>Unbundled Network Interface Device (NID)</b>			
NID to NID Connection 2 Wire (per NID)	\$	1.16	\$ 0.59
NID to NID Connection 4 Wire (per NID)	\$	1.23	\$ 0.63
Standalone NID - 2 Wire (Per NID)	\$	1.16	\$ 0.59
Standalone NID - 4 Wire (Per NID)	\$	1.23	\$ 0.63
Standalone NID - DS1(Per NID)	\$	5.39	\$ 3.77
UNE Shared NID (Per Line)	\$	0.36	\$ 0.18
<b>Unbundled xDSL Conditioning &amp; Qualification</b>			
Mechanized Loop Qualification	\$	0.26	\$ 0.00
Wideband Test Access (** OPTIONAL CHARGE**)	\$	2.19	\$ 0.55
Addition of Loop Electronics - Normal - NRC	\$	1,118.11	\$ 1,064.97
Addition of Loop Electronics - Expedite - NRC	\$	1,126.34	\$ 1,072.92
<b>Unbundled EEL Testing</b>			

2 Wire Analog Test Charge	\$	0.62	\$	0.34
2 Wire Digital Test Charge	\$	0.77	\$	0.42
4 Wire Analog Test Charge	\$	1.85	\$	1.01
1.544 Mbps (DS1) Digital Test Charge	\$	3.95	\$	2.16
Digital 4 Wire (56 or 64 kbps) Test Charge	\$	2.00	\$	1.09
<b>Line Sharing/Line Splitting</b>				
<b>Admin &amp; Support</b>				
Option A	\$	27.69		\$0.00
Option C	\$	34.89	\$	4.05
Splitter Equipment Only -Option C	\$	4.28	\$	3.77
<b>Nonrecurring</b>				
Splitter Installation	\$	1,487.52		\$1,447.16
<b>Unbundled OSS Costs for Line Sharing and Splitting</b>				
OSS for Line Sharing	\$	0.84	\$	0.54
<b>Unbundled Line Ports</b>				
POTS/PBX/CTX	\$	3.1538	\$	1.1925
ISDN BRI or Ctx Port	\$	16.0505	\$	6.1636
ISDN PRI Port	\$	122.0454	\$	47.8970
Unbundled Public Access Line Port (UPALP)	\$	3.1538	\$	1.1925
Unbundled Coin Port (UCP)	\$	4.0093	\$	2.0481
SMDI II (Simplified Message Desk Interface) Port	\$	299.4771	\$	178.0938
Switched DS1 Port (DS1 Port with Line Treatment)	\$	81.96	\$	34.68
Automatic Identified Outward Dialing (AIOD)	\$	0.6732	\$	0.2201
Direct Inward Dialing and Outward (DID/DOD)	\$	8.4407	\$	1.7425
IDLC Port per interface Group (TR008/GR303)	\$	377.92	\$	119.61
<b>Unbundled Dedicated Trunk Ports</b>				
Dedicated Trunk Port - End Office	\$	88.88	\$	34.59
Dedicated Trunk Port - Tandem	\$	90.51	\$	20.09
Dedicated Trunk Port - TOPS	\$	77.56	\$	46.12
<b>Unbundled Individual Line Port Features</b>				
<b>Res/Bus Features</b>				
Call Waiting Display Number	\$	0.0186	\$	0.0110
Call Waiting Display Name	\$	0.0186	\$	0.0110
Three Way Calling	\$	0.3506	\$	0.0704
Remote Call Forwarding	\$	2.2487	\$	0.5004
Calling Number Delivery	\$	0.0182	\$	0.0101
Calling Number & Name Delivery	\$	0.6033	\$	0.5794
Anonymous Call Rejection	\$	0.0351	\$	0.0075
Automatic Recall (Return Call)	\$	0.2758	\$	0.0567
Call Waiting	\$	0.0001	\$	0.0001
Automatic Callback (Repeat Call)	\$	0.2731	\$	0.0561
<b>Unbundled CENTREX Features</b>				
CTX Intercom	\$	0.4871	\$	0.0213
CTX Announcement	\$	0.7253	\$	0.1483
Ctx 3-Way Conference	\$	0.3506	\$	0.1126
Ctx Automatic Recall (Return Call)	\$	0.1379	\$	0.0034
Ctx Distinctive ringing	\$	0.0044	\$	0.0008
Ctx Loudspeaker Paging	\$	8.4525	\$	1.7495
Ctx Meet-Me Conference	\$	0.1302	\$	0.0636
Ctx Selective Call Acceptance	\$	0.0339	\$	0.0070
Ctx Selective Call Forwarding	\$	0.0078	\$	0.0010
Ctx Selective Call Rejection	\$	0.0433	\$	0.0057
Ctx 6-Way Conference	\$	1.2848	\$	0.2584
Ctx Station Message Detail Record (SMDR)	\$	12.9835	\$	7.7210
Ctx Repeat Call	\$	0.2731	\$	0.0561
Ctx Call Transfer - All Calls	\$	0.0156	\$	0.0031
Ctx Call Waiting Terminating ( All Calls)	\$	-	\$	0.0002
Ctx Directed Call Pick-up with Barge-In (Originating)	\$	0.0020	\$	0.0004
Ctx Executive Busy Override	\$	0.0003	\$	0.0002
<b>Unbundled ISDN Features</b>				
ISDN Intercom	\$	0.4871	\$	0.0213
ISDN Announcement	\$	9.0728	\$	1.8549
ISDN 3-Way Calling	\$	0.3506	\$	0.0704
ISDN 6-Way Conference	\$	0.8063	\$	0.1622
ISDN Call Pickup	\$	0.0003	\$	0.0001

ISDN Selective Call Rejection	\$	0.0650	\$	0.0135
ISDN Call Transfer Individual - All Calls (Ftr. 578)	\$	0.0487	\$	0.0098
Calling Number Delivery	\$	0.5185	\$	0.5044
Calling Name Delivery	\$	0.5185	\$	0.5044
<b>Unbundled Switching- Per MOU</b>				
Originating EO Local Switching per MOU	\$	0.002703	\$	0.000111
Termination EO Local Switching per MOU	\$	0.002374	\$	0.000099
<b>Unbundled Tandem Switching</b>				
Tandem Switching MOU	\$	0.000785	\$	0.000229
<b>Unbundled Common Trunk Ports</b>				
Common Trunk Port - End Office (per mou)	\$	0.000397	\$	0.000155
Common Trunk Port - Tandem (per mou)	\$	0.000710	\$	0.000158
Common Trunk Port - TOPS (per mou)	\$	0.000339	\$	0.000202
<b>Unbundled Common Transport</b>				
Fixed - Common	\$	0.000099	\$	0.000055
Per Mile	\$	0.000002	\$	0.000001
<b>Unbundled Reciprocal Compensation</b>				
Meet Point A End Office (per mou)	\$	0.001036	\$	0.000269
Meet Point B End Office (per mou)	\$	0.001880		**
<b>Unbundled Dedicated Transport</b>				
<b>Entrance Facilities</b>				
DS-1 Entrance Facility	\$	142.22	\$	70.77
DS-3 Entrance Facility	\$	498.73	\$	334.43
STS-1 Entrance Facility - Per Facility	\$	501.30	\$	336.25
OC-3 Entrance Facility - Per Facility	\$	1,155.06	\$	730.29
OC-12 Entrance Facility - Per Facility	\$	3,659.12	\$	2,429.56
<b>IOF</b>				
DS-1 Fixed includes both ends	\$	54.76	\$	43.86
DS-1 per Mile	\$	3.91	\$	2.46
DS-3 Fixed includes both ends	\$	499.44	\$	198.88
DS-3 per Mile	\$	59.11	\$	33.53
STS-1 - Fixed includes both ends	\$	502.99	\$	200.24
STS-1 - per mile	\$	59.31	\$	33.61
OC-3 - Fixed includes both ends	\$	1,441.40	\$	584.64
OC-3 - per mile	\$	178.07	\$	102.95
OC-12 - Fixed includes both ends	\$	4,113.45	\$	2,578.58
OC-12 - per mile	\$	390.84	\$	255.04
<b>Unbundled Signaling Databases</b>				
<b>800 Database</b>				
Basic Per Query	\$	0.000221	\$	0.000127
Vertical Query	\$	0.000221	\$	0.000127
<b>LIDB</b>				
Calling Card per query	\$	0.018594	\$	0.017766
Billed Number Screening per query	\$	0.018594	\$	0.017766
<b>Unbundled Dark Fiber - IOF</b>				
<b>Verizon C.O. to Verizon C.O.</b>				
Serving Wire Center ("SWC") Charge / SWC / Pair	\$	16.23	\$	4.77
Inter Office ("IWC") Charge/IWC/Pair	\$	173.22	\$	52.29
<b>Verizon C.O. to CLEC C.O.</b>				
Serving Wire Center ("SWC") Charge / SWC / Pair	\$	16.23	\$	4.77
Channel Termination Charge/CLEC CO	\$	201.16	\$	60.73
<b>Unbundled Dark Fiber - Loop</b>				
Serving Wire Center Charge / SWC / Pair	\$	16.23	\$	4.77
Loop Charge/Pair per Rate Group				
Loop Charge/Pair per Density Cell 1	\$	228.98	\$	113.81
Loop Charge/Pair per Density Cell 2	\$	339.99	\$	173.10
Loop Charge/Pair per Density Cell 3	\$	442.86	\$	225.68
Customized Routing per line per month	\$	0.001400	\$	0.001318
<b>Daily Usage File (DUF)</b>				
Per Record Recording	\$	0.001500	\$	0.000066
Per Record Transmitted	\$	0.000379	\$	0.000368
Per Media (Tape or Cartridge)	\$	20.31	\$	19.75
<b>SMS (AIN Service Creation)</b>				
Service Creation Usage				

Remote Access per 24 Hr. day	\$	3,278.31	\$	1,927.44
On Premise per 24 Hr. day	\$	3,278.31	\$	1,927.44
Certification and Testing per Hour	\$	64.84	\$	58.36
Help Desk Support per Hour	\$	69.36	\$	62.44
<b>Service Charges</b>				
Subscription Charges	\$	4.02	\$	3.91
<b>Database Queries</b>				
Network Query	\$	0.00045	\$	0.00044
CLEC Network Query	\$	0.00045	\$	0.00044
CLEC Switch Query	\$	0.00045	\$	0.00044
Utilization Element	\$	0.00009	\$	0.00008
<b>Service Modification</b>				
DTMF Update Per Change	\$	0.02207	\$	0.02049
Switched Based Announcement	\$	0.00258	\$	0.00154
<b>Developmental Charges</b>				
Service Creation Access Ports per month, per Logon ID	\$	1,502.82	\$	1,139.07
<b>Operations Support Systems (per UNE Loop/Platform/Combination or resold line)</b>				
Ongoing and Recovery of one time (during 10 yr.Period)*	\$	0.84	\$	0.08
Ongoing only (after 10 yr. Period)	\$	0.47	\$	-
<b>Resale Discount Study</b>		NA		

\* The primary recommendation for OSS costs is that each party bears their own development costs and the OSS charge is \$0

\*\* Unable to restate due to a lack of necessary documentation