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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie R. Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

RE: *WorldCom and AT&T v. Verizon*
CC Docket Nos. 00-218 and 00-251

Dear Ms. Salas:

Enclosed for filing in the above-referenced arbitration proceedings, please find 4 copies of Verizon Virginia Inc.'s (Verizon VA) and AT&T Communications of Virginia Inc./WorldCom, Inc.'s (AT&T/WorldCom) joint decision point list (JDPL) for non-recurring costs and 4 copies of the public version of Verizon VA's and AT&T/WorldCom's JDPL for recurring costs.

Verizon VA is serving 8 copies (and an electronic copy) of the JDPL for non-recurring costs on Commission staff. Verizon VA is also serving 8 copies (and an electronic copy) of the non-public versions of the JDPL for recurring costs, as well as 2 copies of the public versions, on Commission staff.

Please call Scott Randolph (202-515-2530) or me if you have any questions.

Very truly yours,

Lynn R. Charytan

Lynn R. Charytan
Attorney for Verizon Virginia Inc.

No. of Copies rec'd
List ABCDE

cc: Dorothy Attwood (8 proprietary copies, 2 public copies of Recurring JDPL; 8 copies of Non-Recurring JDPL)
Mark A. Keffer (1 proprietary and 1 public copy of Recurring JDPL, 1 copy of Non-Recurring JDPL)
Jodie L. Kelley (1 proprietary and 1 public copy of Recurring JDPL, 1 copy of Non-Recurring JDPL)
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CERTIFICATE OF SERVICE

I do hereby certify that true and accurate copies of the **Revised Joint Decision Point List — Recurring Rates and Resale Discount** and of the **Revised Joint Decision Point List — NonRecurring/xDSL Costs** were served electronically and by overnight mail this **1st day of October, 2001**, to:

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REVISED JOINT DECISION POINT LIST
(UNE PRICING)
NON-RECURRING/xDSL COSTS

WorldCom & AT&T v. Verizon
(Docket Nos. 00-218 and 00-251)

ISSUE NO.	STATEMENT OF ISSUE	AT&T/WCOM RATIONALE	VERIZON RATIONALE
II-2	What are the proper non-recurring charges, particularly for Unbundled Network Element Platform ("UNE-P") provisioning in the case of conversions or migrations of existing Verizon customers?	Exhibit 3 to Walsh Direct Testimony shows the correct NRCs. They are the output from the AT&T/WorldCom NRCM.	Attachment D to Verizon VA's Non-Recurring Panel Surrebuttal testimony (which replaces Exhibit, Part H, Section H to Verizon VA's non-recurring cost studies filed on July 2, 2001) depicts the non-recurring costs that the Commission should adopt.

ISSUE NO.	STATEMENT OF ISSUE	AT&T/WCOM RATIONALE	VERIZON RATIONALE
II-2-a	What is the relevant economic standard for establishing nonrecurring charges applicable to CLECs ordering unbundled network elements and interconnection from Verizon?	**TELRIC IS THE RELEVANT ECONOMIC STANDARD** Both recurring and nonrecurring prices for unbundled network elements should reflect forward-looking economic costs. Forward-looking economic cost is the cost standard that would prevail in a competitive market. Moreover, prices based on forward-looking economic cost are nondiscriminatory in that all competitors, including Verizon, will face the same cost for use of comparable network functionality. Finally, prices based on forward-looking economic costs give providers an incentive to realize efficiencies and thereby to reduce costs. Murray Direct, pp.2-3. Non-recurring prices represent an up-front cost of doing business that new entrants will incur in conjunction with each customer that they win from Verizon and that Verizon need not incur to maintain its monopoly legacy customers. Non-recurring charges can add significantly to the total cost that a new entrant will incur to use Verizon's unbundled network elements, making competitive entry using those elements uneconomic — even if the element prices themselves reflect sound economic principles. These "entrance fees" increase the capital that a new entrant must invest up-front before it receives even a penny of revenue from its retail customer and therefore make entry more difficult. Thus, to create the conditions under which local competition can flourish non-recurring charges for unbundled network elements must not exceed the forward-looking, efficient level necessary to compensate Verizon for the costs that the new entrant truly causes Verizon to bear.	**VERIZON VA'S NRCM IS FORWARD-LOOKING AND COMPLIANT WITH TELRIC** Verizon VA's non-recurring study appropriately determined the forward-looking non-recurring costs it expects to incur and complies with TELRIC. Verizon VA's study (i) takes into account reasonably achievable efficiencies associated with non-recurring activities; (ii) is based on the forward-looking network infrastructure, operating methods, and systems expected to be in place at the end of the study period; (iii) includes only the specific work activities required to process and provision CLEC orders in that operating environment; and (iv) reflects expected savings due to improved systems and operations methods, and the effects of the learning curve. Verizon VA's model thus tries to measure the non-recurring costs that Verizon VA, acting efficiently, truly expects to incur in the future in taking and fulfilling CLEC UNE orders as it efficiently expands and replaces its network over time. *See* Shelanski Direct at 32-33; Gordon Direct at 28-29; VZ-VA Panel Direct at 300-311; VZ-VA Non-Recurring Panel Surrebuttal at 11-24, 26. ***Verizon VA's Study is Forward-Looking:*** Verizon first determined the time currently necessary to perform a particular non-recurring service and the current likelihood that the activities giving rise to such services will occur. Together, these produce an estimate of the labor time Verizon VA can expect to devote to a given non-recurring task today. Verizon VA then determined whether changes in technology, processes, and other factors could be expected either to reduce the occurrence of a particular non-recurring activity or the time needed to perform such activities in the future. If either was the case, Verizon VA made a corresponding reduction in its model. Tellingly, Verizon VA assumes that about 89% of all connect tasks, and 69% of all disconnect

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		Unlike recurring charges for unbundled network elements or recurring costs for a new entrant's own facilities, non-recurring charges are a sunk cost. A new entrant cannot obtain a refund or repayment for any or all of the non-recurring charges it pays Verizon, even if the new entrant loses the retail customer on whose behalf it incurred the non-recurring charge or goes out of business entirely. Verizon has every incentive to make non-recurring charges an even larger barrier to entry than they would otherwise be by exaggerating the level of non-recurring cost associated with the preordering, ordering, and provisioning of unbundled network elements. Murray Direct, pp.24-28. **CORRECT CLASSIFICATION OF RECURRING AND NON-RECURRING COSTS IS ESSENTIAL** The key distinguishing characteristic between the costs that should be recovered in recurring charges and those that can be — but do not have to be — recovered in NRCs is whether the cost, once incurred, is for facilities that can be reused to provide service to a subsequent customer without change. If so, Verizon should recover the cost through recurring charges, not NRCs. Based on this test, no capital costs belong in the NRCs for unbundled network elements. All capital items could be used to supply service to another customer. This is true for plant dedicated to a given customer premises, such as the drop and the Network Interface Device ("NID"), as well as plant that can be used for many customers, such as general purpose computers and switches. This test also excludes all of the labor used to install	tasks, will be completely automated on a going-forward basis. Verizon VA's non-recurring model also makes appropriate forward-looking assumptions concerning the technology mix that will be used to take and fulfill CLEC UNE orders. In particular, its model assumes that the network contains the technology that will be in place at the *end* of the forward-looking study period (rather than a "weighted average" of what would be in place during the study period). Verizon's non-recurring cost modeling method is thus designed to capture the forward-looking costs of taking orders from CLECs and hooking up CLEC customers to the network. AT&T/WorldCom argue that Verizon VA should have made the same assumption on the non-recurring side that it did on the recurring side — namely, that the forward-looking mix of technology that it plans to deploy in new construction and growth over the course of the study period would be deployed on a *network-wide basis*, even though that will not have occurred by the end of the study period. However, it would be absurd to ignore non-recurring costs Verizon VA, acting efficiently, will incur on a going-forward basis because ultimately — after many years when a (still evolving) forward-looking network has been implemented — it may have lower costs in the future. Verizon VA bases recurring and non-recurring costs on the same evolving forward-looking network that it expects to deploy efficiently over time, and Verizon VA has used an approach that captures these costs as fully as possible. However, recurring and non-recurring costs are different and so it would not make sense to assume the network-wide replacement of technologies to model non-recurring costs. The mere existence of new technology that might reduce or eliminate the labor time needed for non-recurring activities (but that was not otherwise

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		that plant, because once the plant has been installed to serve one customer, another customer at the same customer premises could reuse that plant at no additional cost for that plant. This leaves the cost of performing the transaction as the costs that can be recovered in NRCs for unbundled network elements. These are the costs of actually performing the tasks of preordering, ordering, and provisioning. Murray Direct, pp.29-30. Not all one-time activities, even those associated with a particular service order, are properly considered non-recurring costs. Consider, for example, the loop itself. Verizon might construct an entire new loop to provide service in response to a service order request. That circumstance does not, however, change the basic fact that the construction of the loop is properly treated as a recurring cost. Proper identification of one-time costs is particularly important in a competitive environment where more than one local exchange carrier (including the incumbent) may use a particular facility at different points in that facility's economic life. If the first telecommunications provider to use the facility bears all the forward-looking costs of a one-time activity benefiting multiple users, then obviously the first user will be forced to pay more than its fair share. Another loop-related one-time activity considered recurring is the physical cross connection at a feeder distribution interface ("FDI") of a loop's feeder and distribution plant. The reason this activity is recurring is that the connection remains in place when a service disconnects; Verizon can reuse that	efficient to deploy) would not affect the costs of performing those activities on the plant that is expected to be in place. And so long as it is efficient going forward for the firm to be using that existing plant instead of replacing it (which it is for reasons explained in the testimony of Drs. Shelanski, Tardiff, and Gordon), the non-recurring cost estimates should reflect the mix of existing facilities expected to be used over the planning period. For non-recurring costs, Verizon VA will incur labor and other costs required to fulfill CLEC orders based on the network infrastructure, systems, and processes that are utilized during the study period. This network contains both old and new technologies, and the forward-looking economic non-recurring costs Verizon VA will incur are those of fulfilling orders in this network. Charging competitors the costs they in fact impose when they demand such non-recurring services promotes efficient entry and expansion decisions. By contrast, it makes no sense to assume that carriers who purchase UNEs during the study period will connect to future plant that will not even be in place by the end of the study period rather than connect to some older vintages of plant that will be in place. Thus, it is appropriate and forward-looking to determine the costs that competitors will cause by using UNEs that are provided using the plant mix and procedures that Verizon VA will have in place at the end of the study period. *See* Shelanski Direct at 33-35; Gordon Direct at 29-31; Shelanski Rebuttal at 21-24; Shelanski/Tardiff Surrebuttal at 41-45; VZ-VA Non-Recurring Panel Surrebuttal at 11-24. ***Non-Recurring Costs Do Not Create a Barrier to Entry:*** Non-recurring costs are caused by the CLEC, and it is appropriate that they

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		connection for a subsequent customer when that customer establishes new service to the disconnecting location. Hence, this one-time activity benefits all future users of a particular telecommunications facility and the costs of the activity are properly characterized as recurring. Murray Direct, pages 30-31. Walsh Direct, pp.9-14. The Verizon Field Installation activities are necessary to produce the loop element. As such, their cost is properly recovered as recurring cost activities. NRC Panel Reply, pp.21-30. **TELRIC REQUIRES FORWARD LOOKING, EFFICIENT OSS.** Prices for non-recurring functions that reflect forward-looking long-run economic cost should be based on the cost that Verizon would incur for these functions if it: (1) uses forward-looking OSS operated efficiently, (2) employs efficient work practices, (3) deploys a network architecture that is forward-looking (*i.e.,* that matches the network architecture assumed to developed recurring costs), and (4) incurs reasonable labor costs. Murray Direct, pp.33-34. Walsh Direct, p. 13-208. Forward-looking (and current) OSS are sufficiently sophisticated to allow Verizon to process a very high percentage of valid orders and to provision the necessary facilities automatically, without manual intervention. Forward-looking standards exist that are expected to deliver even more sophisticated and efficient OSS performance than the legacy OSS assumed in	pay these costs and bear the risk of not recovering them from customers. If the ILEC incurs a non-recurring cost in connection with, for example, providing a loop, and can only charge the CLEC for that cost as part of recurring charges, then the risk of non-recovery does not go away. It is simply transferred from the CLEC that caused it to the ILEC that was required to incur it. If the CLEC, which is causing the non-recurring cost through entry over the incumbent's facilities, does not pay that cost, then it is not bearing the full costs of its entry and will not make efficient entry decisions. Moreover, a new entrant in almost any industry will have to incur costs that the incumbent has already borne and need not incur again going forward, and nobody would suggest that anyone except the entrant bear those costs. If the costs are caused by the CLEC's activities and are efficiently incurred by the ILEC, then the CLEC should bear those costs, should pay for them in the manner in which they are incurred, and should bear the risk of their non-recovery. Finally, it is not true that ILECs do not incur the non-recurring costs that CLECs incur. When a retail customer signs up with an ILEC (or moves from a CLEC to an ILEC), the ILEC, too, will incur non-recurring costs associated with fulfilling the customer's order. CLECs and ILECs alike are free to determine how best to recover these non-recurring costs from retail customers, whether as part of their overall charges or as an up-front connection fee. *See* Shelanski Rebuttal at 15-17. ***AT&T/WorldCom's "Forward-Looking" Assumptions Are Unjustifiable:*** AT&T/WorldCom use the label "forward-looking" to try

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		the AT&T/WorldCom Non-Recurring Cost Model. Essentially, Verizon today has a choice between (1) having efficient pre-ordering, ordering, and provisioning systems that operate a very high percentage of the time without manual intervention once the service order information has been entered into the system correctly, or (2) accepting a less efficient process and allowing a higher percentage of orders that "fallout" of the mechanized process and must be handled manually. The second option would be more costly, because it requires many more personnel to provision services. Hence, a forward-looking economic cost analysis should reflect the costs associated with option one. The fallout that Verizon handles manually should be minimal. As I noted above, it is economically efficient for Verizon to manage its OSS so that orders can flow-through. Furthermore, Verizon can and should return the vast majority of input errors to the competitor originating the order via automated front-end edits. Competitors will directly bear most of any cost to process orders and correct fallout. Hence, the forward-looking cost that Verizon incurs for this function on the wholesale side of its operations should be significantly smaller than its retail operations costs. Murray Direct, pp. 34-36. Walsh Direct, p. 14-20. There must be efficient electronic flow-through of messages between the ILEC and the CLEC. These messages are used in the pre-ordering and ordering phase of a service or UNE activation without which there would be mass confusion,	to justify assumptions having no basis in reality. Their model relies extensively on technology and procedures that are not currently available and will not even be available for the foreseeable future, that are not feasible in a multi-carrier environment, and that are so unrealistic and inefficient that they admittedly cannot point to any carrier that employs them. As discussed below, these assumptions include the supposed ability to electronically unbundle loops, the presumptions of 100% Dedicated Inside Plant ("DIP") and Dedicated Outside Plant ("DOP"), and the supposition that Verizon VA will not have to manually handle a single order during the ordering stage. Neither TELRIC (which is, of course, tied to "currently available" technology) nor sound economic analysis provides any justification for AT&T/WorldCom's suppositions. *See* VZ-VA Non-Recurring Panel Rebuttal at 45-53, 26-33, 39-45; VZ-VA Non-Recurring Panel Surrebuttal at 12-13. Moreover, AT&T/WorldCom consistently fail to account for the fact that assumptions they make that allegedly lower certain non-recurring costs will in fact increase *other* costs, particularly on the recurring side. AT&T/WorldCom's assumption of 100% DIP on the non-recurring side, for example, will require increased (and inefficient) capacity on switches, yet their recurring study does not include those costs. Similarly, their assumption that OSS's will materialize to automate various processes on the non-recurring side are not accompanied by the increased recurring costs that would be required to develop such OSSs (even assuming doing so would be technically feasible). More generally, AT&T/WorldCom is wrong in assuming that a system that more often permits ordering and provisioning of UNEs to occur electronically than another system allows for is by definition more efficient. Depending on the volume of orders for a particular element and the costs/complexity of automating the ordering/provisioning process

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		particularly in an environment with several CLECs purchasing wholesale services. There should be accurate exchange of information between the CLEC and the ILEC in a format that is electronically readable and that can be processed by the OSS. Likewise the information that the ILEC passes back to the CLEC should contain the same level of accuracy.	for that element, it may in fact be less costly simply to handle the ordering/provisioning of that element manually rather than go to the expense of creating an automated system for doing so. *See* Shelanski Rebuttal at 25; VZ-VA Non-Recurring Panel Rebuttal at 7, 9, 29-32, 36-37, 41-42, 72-74; Murphy Rebuttal at 119-121. **VERIZON VA APPROPRIATELY DISTINGUISHES BETWEEN NON-RECURRING AND RECURRING COSTS** Verizon VA distinguishes recurring from non-recurring costs based on the cost-causation standard that is grounded in the Commission's well-established principles. Non-recurring costs, unlike recurring costs, are incurred in response to a specific event by a specific cost-causer, and involve easily identifiable, concrete costs. The most efficient and appropriate means of recovering such costs is through a one-time charge to the cost-causer. It would be inefficient and impractical to spread such a concrete expense over an estimate of future usage, which could later prove to understate or exaggerate costs. Moreover, failing to recover the costs from the cost-causer typically creates perverse economic incentives and uneconomic behavior by the CLECs. In order to ensure that the CLEC has the correct incentives to target customers, invest in facilities, and establish efficient prices, it should be required to pay the full amount of the costs that are a direct result of its actions. AT&T/WorldCom's proposed test — which essentially would forbid recovery on a non-recurring basis of any charge associated with an expense that might, possibly, someday benefit other CLECs — has no economic or other basis and amounts to nothing more than an attempt to shift costs directly associated with CLECs' requests for service onto

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			incumbent LECs, particularly as AT&T/WorldCom fail to include corresponding costs in their recurring cost study. In fact, the Commission has expressly made clear that a cost can be non-recurring even if the activity causing the cost might subsequently benefit other carriers. *Local Competition Order* at 15874 ¶ 751. By seeking to require ILECs to recover non-recurring costs through recurring charges, what AT&T/WorldCom are really asking is that ILECs bear the risk of the CLEC's decision to serve a customer. Take, for example, line conditioning. AT&T/WorldCom argue that the costs of conditioning should be deemed recurring on the theory that subsequent providers of DSL service might also benefit from the line conditioning performed initially at the CLEC's request. But here the activity undertaken by the ILEC is not the provision of the underlying UNE, but something the CLEC needs to provide a particular service over the otherwise functional element. There is no assurance that the CLEC will continue to lease the loop long enough to pay for the cost of line conditioning if that cost is recovered on a recurring basis, or that another CLEC will subsequently choose to use the loop to provide DSL service. As a result, there is no assurance that, if the requesting CLEC does not pay the line conditioning cost it caused on a non-recurring basis, the ILEC will ever be able to recover the costs over time from its own service offerings or from any other carrier. This risk shifting from the CLEC to the ILEC is economically inappropriate. The requesting CLEC itself should bear the risk that it will lose the customer and not recover that NRC. Otherwise the CLEC will not fully consider the long-run costs of serving customers, will have incentive to over-expand, and will shift substantial risks of its own business decisions to the ILEC and to future carriers.

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			Similarly, contrary to AT&T/WorldCom's arguments, a non-recurring charge for placement of a field cross-connect is appropriate. When Verizon VA disconnects a service, it attempts to leave the cross-connect in place in case it later needs to establish service for another user. However, contrary to AT&T/WorldCom's unsupported 100% DOP assumption, if the cross-connect remains dormant for an extended period of time, it will be disconnected if needed in connection with another service request. If a CLEC (or a Verizon retail customer) subsequently orders service for a premises where a cross-connect is no longer in place, placing a new cross-connect is part of fulfilling that order and the cost of doing so should be borne by the CLEC causing that cost. *See* Shelanski Rebuttal at 17-20; VZ-VA Non-Recurring Panel Rebuttal at 72-74; VZ-VA Non-Recurring Panel Surrebuttal at 89-101. **FORWARD-LOOKING OSS** Verizon VA's forward-looking assumptions concerning OSS and fallout are discussed in II-2-b below.

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II-2-b	Which cost models in this proceeding provide the best framework for estimating the nonrecurring costs of network elements and interconnection provided by Verizon?	**THE AT&T/WORLDCOM NRCM PROVIDES THE BEST FRAMEWWORK** **THE AT&T/WORLDCOM NRCM PROVIDES AN APPROPRIATE, BUT CONSERVATIVELY HIGH, ESTIMATE OF THE COSTS OF THE TRANSACTIONAL FUNCTIONS OF PRE-ORDERING, ORDERING AND PROVISIONING.** The AT&T/WorldCom NRCM properly reflects: (1) a network engineered using forward-looking technologies and efficient processes; (2) an electronic ordering interface between CLEC and ILEC that incorporates front-end edits to minimize service order errors and the ability for those errors to be returned electronically; (3) an efficient OSS environment with unpolluted databases to minimize fallout; (4) electronic provisioning where possible; and (5) proper identification of recurring and non-recurring costs such as the recovery of OSS investment costs in recurring rates. The Verizon non-recurring cost study does not. Walsh Direct, pp. 28-38, NRC Panel Surrebuttal, pp.6-49. **VERIZON EMPLOYED A FLAWED SURVEY METHODOLOGY**	**VERIZON VA'S COST STUDY PROVIDES THE BEST FRAMEWORK FOR CALCULATING NON-RECURRING COSTS.** For the reasons discussed here and under Issue II-2-c, Verizon VA's non-recurring cost model provides the best framework and should be adopted by the Commission. **VERIZON VA'S METHODOLOGY TO DERIVE WORK TIMES IS SOUND** ***Survey Methodology:*** The methodology that Verizon VA employed to derive work times is sound and clearly superior to that of AT&T/WorldCom. Verizon VA's model is based on empirical data collected from those individuals who actually perform the tasks at issue. After the survey responses were initially received, they were subject to several steps of review to ensure their reliability and reasonableness. Verizon then determined the current likelihood that the activities whose work times were measured will occur (the Typical Occurrence Factor). By multiplying that Typical Occurrence Factor with the average work time resulting from the survey, Verizon estimated the labor time it can expect to devote to a given non-recurring task today. Critically, Verizon then adjusted this time downward by applying a Forward-Looking

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		The Verizon non-recurring cost studies rely on data pertaining to its existing, embedded processes and its existing, embedded network architectures. For example, Verizon unaccountably presumes an inordinate level of manual intervention at all stages of the ordering and provisioning. Although Verizon applies some "forward-looking adjustments" to current work times and occurrences, such adjustments are not widespread across all work activities, nor do they address the fundamental flaw of relying on data pertaining to existing processes and network architectures, rather than forward-looking processes and network architectures. Verizon committed numerous errors in survey design, data collection and data processing. These errors contributed to the inflation of Verizon's study results and render those results useless for estimating the cost of efficient activities. NRC Panel Reply Testimony, pp. 77-102. NRC Panel Surrebuttal, pp. 8-13. The excessive manual labor capture by Verizon's non-recurring cost study is exemplified by the processes and task times assumed for the RCCC (NRC Reply pp. 39-47) and CO Frame work groups most egregiously with regard to migrations (NRC Panel Reply pp. 63-71). Verizon assumes activities for providing the UNE Platform that are completely unnecessary and fictional. NRC Panel Reply pp.60-62.	Adjustment Factor to account for expected technological developments, process changes, and any other efficiency gains that would either reduce the time to do a task or lower the frequency with which it has to be performed. AT&T/WorldCom's criticisms of the Forward-Looking Adjustment Factor and its Typical Occurrence Factor are unavailing. First, their proposal that Verizon VA should have had workers simply provide a "forward-looking" time estimate in the first instance is mystifying, given that workers often have no basis upon which to make guesses regarding future mechanization. This determination is more appropriately made by managers who oversee tasks and who are involved in planning future mechanizations. Second, most workers are not qualified to estimate the "typical occurrence" of those activities they perform. Because they only observe those instances in which work must be performed manually, they have no basis on which to assess the proportion of cases in which that work is necessary. Moreover, AT&T/WorldCom's claim that "many" activities and charges exhibit *no* forward-looking adjustment is baseless. In fact, as noted above, Verizon VA assumes that about *89%* of all connect tasks, and *69%* of all disconnect tasks, will be *completely* automated. *See* VZ-VA Panel Direct at 311-319; VZ-VA Non-Recurring Panel Surrebuttal at 25-32, 40, 43-44. Verizon also hired NERA to calculate the statistical precision of Verizon VA's non-recurring cost estimates. NERA used the individual responses from the non-recurring work time surveys that were determined to be independent to calculate the average times and variances for the non-recurring work activities. Based on these average

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			work times and other inputs from the non-recurring cost model, NERA calculated 95% precision levels for Verizon VA's proposed non-recurring costs. NERA's results show that Verizon VA's average work time estimates are sufficiently precise for the company to use in developing non-recurring costs for unbundled network elements. *See* VZ-VA Panel Direct at 323-325; VZ-VA Non-Recurring Panel Surrebuttal at 31-32. ***AT&T/WorldCom Criticisms:*** AT&T/WorldCom's various criticisms of Verizon VA's survey methodology must be rejected. First, their assertion that various Verizon VA discovery responses reported inconsistent means and medians is simply incorrect; AT&T/WorldCom have failed to account for the fact that Verizon pooled responses for identical tasks across UNEs to increase the sample size (and therefore the precision) of its survey. Second, AT&T/WorldCom's argument that there exist unreasonable variances between the minimum and maximum times reported for some tasks, or between the means and medians, is misplaced. These variances simply reflect corresponding differences relating to factors such as the nature of the tasks, workers' experiences, the complexity (or lack thereof) among types orders, and geographical and other factors in a particular worker's environment. Third, AT&T/WorldCom's claim that Verizon VA should have used the sample median, rather than the sample average, work times as the input for its cost study is unfounded and statistically unsound. Use of the sample mean ensures that Verizon VA neither systematically under-recovers nor systematically over-recovers the costs it incurs in

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			provisioning a CLEC order. Fourth, it is *not* the case that Verizon VA should have more aggressively removed various time estimates. Removing data points simply because they look "too high" or "too low" introduces a high degree of subjectivity into the analysis and runs the risk of transforming a statistical procedure designed to reveal unbiased and accurate answers into a tool that merely confirms the analyst's initial beliefs. Fifth, AT&T/WorldCom's contention that the Verizon sample size was too small ignores the results of the NERA analysis, which expressly took account of sample sizes and concluded that Verizon's survey was sufficiently precise to measure the average work times and associated UNE costs and rates. By contrast to Verizon VA's survey, the model AT&T/WorldCom urge included an entire "sample" consisting of only a small handful of purported experts who — despite their lack of real-world experience provisioning the UNEs at issue — together devised a single time estimate for each category. Sixth, there is no reason why Verizon VA should have counted "N/A" responses or blank responses as estimates of "zero" time taken. Indeed, given the instructions on the survey, if Verizon VA counted "N/A" responses as estimates of zero time, the average work times used in its model would be seriously understated. See VZ-VA Non-Recurring Panel Surrebuttal at 30-41. ***Lack of Empirical Support for AT&T/WorldCom Approach:*** AT&T/WorldCom's claims regarding work times, in contrast, are based on the entirely unsupported conjectures of a handful of purported experts.

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			See VZ-VA Non-Recurring Panel Rebuttal at 67-68; VZ-VA Non-Recurring Panel Surrebuttal at 24, 39-40.
II-2-c	What cost assumptions and inputs (e.g., ratio of copper/fiber feeder, fallout rates, central office task times, treatment of disconnection costs, coordination requirements, need for truck rolls) should be used to estimate the nonrecurring costs of network elements and interconnection provided by Verizon?	**VERIZON REJECTED SEVERAL IMPORTANT ASSUMPTIONS REQUIRED BY TELRIC** The same forward-looking network should be assumed for both recurring and non-recurring models. Verizon bases its non-recurring cost studies upon the network architecture that is even less forward looking than the one used in Verizon's recurring cost studies – a network architecture with far more all-copper loops (approximately 63%) than the percentage of all-copper loops that Verizon modeled in its recurring cost studies (17.7%) and far less IDLC (26% as compared with 57%), for example. This is because *the mix of technology that will be in place in three years is significantly dependent on the technology already in place* today. The methodology that Drs. Gordon and Shelanski have endorsed systematically overstates total forward-looking economic costs. Murray Rebuttal, pp. 39-49. **VERIZON'S NON-RECURRING COST STUDIES ASSUME OUT-MODED AND INEFFICIENT TECHNOLOGY.**	**TECHNOLOGY ASSUMPTIONS** Verizon VA explains why its technology assumptions are TELRIC-compliant in Issue-2-a above. **VERIZON VA ASSUMES EFFICIENT OSS AND FALLOUT AT THE ORDERING STAGE** ***Fallout and Manual Processing:*** While all parties agree that fallout generally is defined as the failure of an order that is designed to flow through OSS to do so properly, Verizon VA strongly disagrees with AT&T/WorldCom's assumption that 100% of orders and products are, or should be, designed to flow through. It would be neither cost-efficient nor, in some cases, practical, given currently available technologies, for Verizon VA to mechanize the handling of every order type, irrespective of that order's complexity. While Verizon VA has mechanized many ordering tasks for many elements, and takes account of further potential efficient mechanization through its forward-looking adjustment factors, the most economical (and in some cases the only) way to deal with certain types of complex and/or low-volume orders is through manual

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		The network architecture assumed in Verizon's non-recurring cost study is even less forward-looking than the architecture modeled in Verizon's recurring cost studies. Thus, the network assumed in Verizon's non-recurring studies is even further from the truly forward-looking network architecture modeled in the Synthesis Model that AT&T and WorldCom have presented in this arbitration and confirmed by Verizon's own engineering guidelines. One key example of this is Verizon's assumption regarding DLC. Verizon indicates that because "the network used to determine *non-recurring* costs should reflect the actual costs that will be incurred in the real forward-looking network, the NRC studies assume that the network will consist of 26% IDLC and 74% copper/UDLC." This is far lower than the forward-looking percentage of IDLC would be, even as Verizon has assumed for its recurring study. Verizon incorrectly claims that a forward-looking network must include UDLC to provision both unbundled loops and certain kinds of services. To the contrary, both ISDN and DDS services *can* be provisioned using fiber-fed IDLC, as the AT&T/WorldCom Recurring Cost Panel explains in its concurrently filed testimony. In fact, ISDN services are more efficiently provisioned on IDLC (GR-303), requiring only one port, as opposed to three ports on UDLC. Loops can also be provisioned digitally, and this should be the case if Verizon assigns facilities utilizing fiber feeder. NRC Panel Reply, pp. 12-19. RC Panel Rebuttal Testimony, pp. 22-31. Walsh Direct, pp. 31-37.	handling. Even orders that are designed to flow through will, of course, sometimes "fall out" of the system. Verizon VA has accounted for all cases in which manual processing will be required, both now and on a forward-looking basis, through application of its Typical Occurrence Factor and Forward-Looking Adjustment Factor. But while AT&T/WorldCom concede that electronic order processing will not necessarily eliminate all manual intervention, and acknowledge that such fallout can result from CLEC errors, they inexplicably assume away any need for Verizon to handle such fallout during the ordering stage. AT&T/WorldCom can point to no system or carrier that surpasses the performance levels assumed by Verizon VA's NRCM, let alone their fantastically low fallout levels. *See* VZ-VA Panel Direct at 330-335; VZ-VA Non-Recurring Panel Rebuttal at 6-11, 13-22; VZ-VA Non-Recurring Panel Surrebuttal at 44-48. ***Response to Errors in CLEC Order:*** AT&T/WorldCom erroneously suggest that Verizon VA includes in its NRCM costs associated with manual processing for orders in which a CLEC includes an error in content or form. In fact, however, before being submitted to the OSS that governs ordering, a CLEC request first passes through a "gateway" OSS, which will reject entries that contain most formatting and similar errors. *See* VZ-VA Panel Direct at 12-13; VZ-VA Non-Recurring Panel Surrebuttal at 48-52.

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		WITH EFFICIENTLY MANAGED OSS, FALLOUT SHOULD BE MINIMAL The study should assume that a minimal level (if any) of manual resolution or reformatting of customer (CLEC) requests is necessary. (Moreover, Verizon should have a significant burden of proof to demonstrate why it cannot mechanically process CLEC orders.) Walsh Direct, pp. 14-15. There are four major categories of electronic fallout. They are: 1. Database synchronization errors; 2. Network element denial; 3. Communication errors; and 4. Synchronization errors. Because most fallout errors are not caused by the CLECs, resolution and cost recovery of those database or network problems are properly characterized and recovered as recurring maintenance expense. In the unlikely event that the CLEC is directly responsible for the provisioning process stoppage, the resolution effort should be treated as an NRC. It is with this understanding that the authors of the NRCM decided the appropriate fallout rate attributable to the CLEC should be conservatively set at two percent (2%). Walsh Direct, pp. 15-21. Verizon completely ignores principles of causation by including all fallout as determined based on its survey of existing operations as non-recurring costs. NRC Panel Reply pp. 48-59.	***Structure of Ordering Costs:*** Verizon VA's NRCM appropriately structures ordering costs to minimize administrative costs for all parties and efficiently capture all appropriate forward-looking costs caused by processing CLEC UNE orders. *See* VZ-VA Non-Recurring Panel Surrebuttal at 52-56. **VERIZON'S GENERAL PROVISIONING COSTS ARE EFFICIENT AND FORWARD-LOOKING** ***Inventory Assignment and Order Fulfillment:*** The Commission should adopt Verizon VA's proposed provisioning-related non-recurring costs. Verizon VA agrees that OSS should, where appropriate, facilitate the assignment of network inventory and the fulfillment of the service order request, but special or complex CLEC requests often require manual handling in the provisioning phase, just as in the ordering phase. This will continue to be so for some time. See VZ-VA Non-Recurring Panel Surrebuttal at 56-58. ***Role of the MLAC:*** The intervention of the MLAC is necessary to deal with fallout in the assignment of loop facilities that directly results from provisioning a specific CLEC order. Verizon VA aggressively assumes a forward-looking fallout rate of 4%, which is significantly less than its current fallout rate. *See* VZ-VA Non-Recurring Panel Surrebuttal at 58-59. ***Role of the RCMAC:*** Verizon VA has already achieved a high degree of mechanization in the provision of UNEs, but some manual

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		DISCONNECT COST SHOULD BE RECOVERED AT THE TIME OF DISCONNECTION. New entrants should not pay for disconnecting service at the time that they pay for connection of a new UNE. Requiring a new entrant to pay for disconnection at the time it orders a connection violates cost causation, as Verizon does not incur the costs of disconnection until or unless a facility is disconnected. Moreover, because the length of the period between connection and disconnection is uncertain, recovering disconnection costs through an up-front NRC raises needless "time value of money" issues. Indeed, to the extent that end users currently pay for both connections and disconnections at the time they order service, this practice is questionable because the facilities are often not physically disconnected when service is terminated. Murray Direct, p. 38, NRC Panel Reply, pp. 72-75, NRC Panel Surrebuttal p. 53.	work by the RCMAC will remain necessary. For example, some degree of manual switch translation work will still be needed to perform Hotcuts and Local Number Portability migrations, especially on complex accounts. Also, the RCMAC will continue to manage last-minute postponements and cancellations in order to prevent end user service outages — the vast majority as a result of the CLEC's inability to proceed with the migration at the scheduled time. *See* VZ-VA Non-Recurring Panel Surrebuttal at 60-61. ***Role of the CPC:*** The Commission should reject AT&T/WorldCom's effort to minimize the role of the CPC. Circuits routed to CPC for design invariably require some level of "custom" design and some degree of human coordination. *See* VZ-VA Non-Recurring Panel Rebuttal at 25-26; VZ-VA Non-Recurring Panel Surrebuttal at 61. ***Role of the RCCC:*** The RCCC's role is critical to the provision of CLEC services generally, and to Hotcuts in particular. A Hotcut requires the involvement of various Verizon organizations and, importantly, precise coordination with the CLEC. The RCCC is responsible for ensuring that a loop is simultaneously disconnected from Verizon VA and connected with the CLEC's facilities so as to minimize interruption of service to the end user. In several contexts, AT&T's has vociferously demanded the creation of further checkpoints in Verizon's Hotcut process. AT&T, therefore, has demanded enhancement and augmentation of the functions performed by the RCCC, but here attempts to label those very functions "unnecessary." Moreover, AT&T/WorldCom's various criticisms of specific RCCC tasks

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			demonstrate repeated misunderstandings (or misrepresentations) of that organization's functions. *See* VZ-VA Panel Direct at 333-334; VZ-VA Non-Recurring Panel Rebuttal at 22-25; VZ-VA Non-Recurring Panel Surrebuttal at 61-69. **VERIZON VA'S LOOP PROVISIONING COSTS ARE APPROPRIATE** ***Electronic Provisioning of Loops:*** Verizon VA properly recognizes that, given currently available technology, a standalone loop can be unbundled only with a cross-connection at the MDF; in the case of an IDLC-fed loop, the loop must first be converted to a UDLC or copper-fed loop before it can be unbundled. AT&T/WorldCom assume away the costs of provisioning an unbundled loop carried over a fiber feeder and then use that fantasy unbundled loop to dilute the costs of provisioning actual stand-alone copper loops. But AT&T/WorldCom's hypothesis of a "virtual" loop that enters the CO on fiber and is electronically cross-connected to the CLEC's switch, with no need for a manual cross-connect on the MDF, is a fantasy. This approach is not yet commercially or technically feasible and will not be deployed, if at all, for many years. Indeed, AT&T/WorldCom are unable to point to a *single instance* in which a carrier unbundles a loop as they assume, or even a technical trial of their proposal. Among other things, AT&T/WorldCom's assumption of GR-303 interface groups from individual RTs to specific CLECs is not currently feasible.

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			Moreover, even if AT&T/WorldCom's method were feasible, it would constitute a UNE product entirely separate from a handoff on two copper wires. Among other things, it would require the CLEC to lease a separate DS1 between the RT and its collocation area. This architecture does not fit the technical definition of any UNE loop type. Providing CLECs (up to) 24 individual two-wire or four-wire unbundled loops on a single multiplexed channelized DS1 would — if it were practicable at all — constitute a separate and different unbundled element, and would involve different ordering specifications to be provided to Verizon VA (by the CLEC), as well as different operational processes, technical standards, operational support systems, test systems, and equipment in the COs and RTs. These additional unbundled elements would also have different recurring and non-recurring costs. By pooling this hypothetical UNE loop architecture with the current two-wire UNE loops and coming up with a single non-recurring charge for all "UNE loops," AT&T/WorldCom are attempting to lower the "average" cost of provisioning loops. That is, AT&T/WorldCom's model confers the benefit of virtual provisioning even when a CLEC purchases *only* stand-alone copper loops and does *not* pay the separate recurring and non-recurring charges for the DS1 between the RT and the CLEC's collocation. Even setting aside the technical infeasibility of the virtual loop approach, therefore, AT&T/WorldCom's approach reflects improper costing principles. *See* VZ-VA Panel Direct at 326, 328-329; VZ-VA Non-Recurring Panel Rebuttal at 45-55; VZ-VA Non-Recurring Panel Surrebuttal at 13-23. ***Time Necessary to Provision Loops:*** AT&T/WorldCom seek to drive down the cost of loop provisioning by assuming unrealistically low

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			times for completing essential tasks and disputing the need to perform other tasks. Their arguments are baseless. Verizon VA's estimates — which, unlike the CLECs', are based on survey responses from workers who actually perform the tasks at issue — accurately reflect the time it takes to provision loops. *See* VZ-VA Non-Recurring Panel Surrebuttal at 69-75. Moreover, the procedures about which AT&T and WorldCom complain here — primarily in the context of Hotcuts — are in place precisely because the CLECS demanded them; in any event, those procedures comport with industry standards and are necessary to ensuring that end user service is not interrupted during a migration. Indeed, in its order granting section 271 authority to participate in the New York interLATA market, this Commission has specifically praised Verizon for developing processes that allow for pre-cutover checks to prevent interruption of service to the end user. To our knowledge, no carrier has employed the fanciful alternative urged by AT&T and WorldCom. *See* VZ-VA Non-Recurring Panel Surrebuttal at 75-85. **CENTRAL OFFICE WIRING** ***Dedicated Inside Plant (DIP) Usage:*** The AT&T/WorldCom NRCM improperly assumes 100% dedicated inside plant (DIP), even though no efficient carrier would implement that approach, particularly in an environment where multiple local exchange carriers (LECs) are vying for each end user. AT&T/WorldCom have not provided any evidence that a real-world carrier would implement 100% DIP. Indeed,

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			AT&T/WorldCom have admitted that their 100% DIP assumption is pure fiction -- a "modeling convention." Moreover, in a 100% DIP environment, Verizon VA would have to add significant additional switching equipment so that every feeder pair in the central office could be pre-connected to a piece of switching line equipment. This would inefficiently increase recurring costs, and AT&T/WorldCom fail to account for this increase in their model. In any event, even if the 100% DIP assumption was correct, it would not eliminate the need for manual cross-connects in many cases. *See* VZ-VA Non-Recurring Panel Rebuttal at 26-32. ***Distributing Frames:*** Further, the Commission should resist AT&T/WorldCom's apparent assumption that all MDFs in Verizon VA's network are what are called Low Profile Distribution Frames (LPDF) or COSMIC-type frames. This erroneous assumption leads AT&T/WorldCom to significantly understate the frequency with which manual cross-connects must be performed and the time it takes to perform them. Verizon VA has found that in general COSMIC-type frames are not operationally effective or cost-efficient. Verizon VA has no plans to replace its conventional MDFs with COSMIC-type frames, and, if it were to build a new wire center today, a COSMIC-type frame would not be used. In any event, the frames that AT&T/WorldCom envision do not lower the cost of provisioning UNEs, because they require careful administration and control over the assignment of ports on the block terminating the switch (or the collocation equipment) so that the assigned port is always close to the customer's cable pair -- administration that becomes quite difficult in a multi-LEC environment. Indeed, because

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			COSMIC-type frames often require technicians to run *two* jumpers, they can easily wind up becoming *less* efficient than their alternatives. *See* VZ-VA Non-Recurring Panel Rebuttal at 33-38. **FIELD INSTALLATION** ***Costs for Dispatching a Field Technician:*** The AT&T/WorldCom NRCM erroneously omits costs for dispatching a field technician to perform cross-connects at the Feeder Distribution Interface (FDI). Verizon VA generally will dispatch a field technician to install a UNE loop in four instances: (1) for new loops where there is no drop wire from the serving terminal to the premises, no NID, and no pre-established cross-connection of the feeder cable to the distribution cable at the FDI; (2) when an existing loop is requested and there is no "cut through" — that is, feeder pair and distribution pair are no longer connected at the FDI; (3) when a CLEC requests a migration of a customer currently served on Integrated Digital Loop Carrier (IDLC), to move the end-user's service to copper or UDLC to allow the Hotcut; and (4) at the request of a CLEC, usually to allow tagging of the new loop at the NID for easier identification by the CLEC. *See* VZ-VA Non-Recurring Panel Rebuttal at 38-39. ***Dedicated Outside Plant (DOP) Usage:*** AT&T/WorldCom assume 100% dedicated outside plant (DOP) so that cross-connects are always in place and never reconfigured. Such a network would be extraordinarily inefficient, costly, and unrealistic even in a forward-looking environment. No real-world carrier would implement 100% DOP. As with their 100% DIP assumption, AT&T/WorldCom

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			themselves have acknowledged that their 100% DOP assumption is nothing more than a "modeling convention" and have been unable to identify any carriers that build and maintain a 100% DOP network. Moreover, AT&T/WorldCom's assumption would significantly increase recurring costs. Under AT&T/WorldCom's model, every distribution cable would at the time of construction be connected to a feeder cable all the way to the central office. Thus, the second, third, and fourth lines that might run from a house or business would each have dedicated lines to the Verizon VA MDF. AT&T/WorldCom cannot explain, however, how any carrier would be able to predict with precision the number of lines or the types of facilities that would ultimately be ordered for each particular business or residence customer premises. Verizon VA would have to drastically overbuild the number of feeder cables, which would dramatically increase recurring costs, particularly given the typical length of a feeder (as opposed to distribution) cable. AT&T/WorldCom fail to account for these costs. AT&T/WorldCom's assumption would cause numerous additional problems. For example, digital loop carrier (DLC) network technology would not function well in a 100% DOP environment and would still require a field dispatch. Nor would subloop unbundling be feasible in a 100% DOP environment. *See* VZ-VA Non-Recurring Panel Rebuttal at 39-44. ***Field Cross-Connect Activity In Recurring Rates:*** Contrary to AT&T/WorldCom's assertions, the field cross-connect activity for a new loop is not included in recurring rates. AT&T/WorldCom's claim rests on the assumption that once a field cross-connect is performed, it will

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			never be performed again. However, field cross-connects may be disconnected in certain cases. Verizon VA's non-recurring cost model includes only the additional costs of performing the cross-connect in those cases. *See* VZ-VA Non-Recurring Panel Rebuttal at 45. **UNE-P ISSUES** Verizon VA's non-recurring costs for the provision of UNE-P service are appropriate. These rates do appropriately reflect that the provision of UNE-P service through a CLEC to an end user is more complex than retail provisioning. Moreover, as described above, Verizon VA does not use 100% "dedicated" plant, as proposed by AT&T/WorldCom, because use of such plant — which would prevent Verizon VA from utilizing its facilities in the flexible way mandated by a fluid, competitive market — would be extremely inefficient. Despite AT&T/WorldCom's assertion to the contrary, provision of a UNE-P will sometimes require intervention by the MLAC, which will resolve problems that might arise when Verizon reconfigures its equipment to account for the loop's transition from retail usage to UNE usage. Finally, contrary to the CLECs' implications, there typically will be no field installation costs for UNE-P services under Verizon VA's model. *See* VZ-VA Non-Recurring Panel Surrebuttal at 86-89. **RATE STRUCTURE** ***Disconnect Costs:*** Every UNE arrangement that is connected will one day be disconnected. The cause of the disconnection cost will

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			be the CLEC's decision to request that Verizon VA connect the service in the first instance. Thus, it is appropriate for Verizon VA to include forward-looking disconnect costs in its NRC model. Indeed, such a practice is routine in connection with retail services. Inclusion of these costs is the only way to ensure that disconnect costs are attributed to the entity that causes them and that these costs will, in fact, be recovered. Disconnect costs are discounted for the time value of money, based on a 2.5-year forecasted service life and a 12.95% cost of capital. Because, in Verizon VA's experience 2.5 years is the average UNE lifetime, these adjustments ensure that Verizon VA does not over-recover in collecting disconnect costs. Moreover, because disconnect costs are modified to ensure that they are forward-looking, CLECs pay only the costs that will prevail in the future, rather than the disconnect costs that prevail today. Finally, AT&T/WorldCom's suggestion that migrating end users might be double-charged for disconnection is unavailing. Verizon VA imposes a disconnection charge when an end user connects a service. If the end user then migrates to a CLEC, Verizon VA does *not* impose any disconnect cost on the end user or the CLEC for disconnection of the end user's retail service. The disconnect portion of charges for the migration cover only the ultimate disconnect costs for the *new* wholesale product being provisioned via the migration to fulfill the CLEC order. *See* VZ-VA Panel Direct at 335-336; VZ-VA Non-Recurring Panel Surrebuttal at 101-103. ***Expedited Orders:*** Verizon VA's model properly includes special rates for expediting orders. Additional charges are appropriate because requests for expedited service require adjustments to workload and schedules, and work performed out-of-hours is paid at a premium over normal working hours wages. AT&T/WorldCom's model entirely

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			ignores these additional costs. *See* VZ-VA Panel Direct at 322-323; VZ-VA Non-Recurring Panel Rebuttal at 75-76.
II-2-d	What rate schedules should be established for each network element and interconnection service provided by Verizon, including an appropriate measure of deaveraging for	**RATES** Exhibit 3 to Walsh Direct Testimony shows the correct NRCs that should be adopted at this time.	Attachment D to Verizon VA's Non-Recurring Panel Surrebuttal testimony (which replaces Exhibit, Part H, Section H to Verizon VA's non-recurring cost studies filed on July 2, 2001) depicts the non-recurring costs that the Commission should adopt.

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	customer density and other cost determinants?		
	NRC's for xDSL	**NRCS FOR ADVANCED SERVICES** The Commission should await the results of the DSL collaborative in New York prior to setting prices for DSL, but to the extent that the Commission adopts any DSL prices at this time, it should rely on the recommendations of AT&T/WorldCom. pages 59-67 of surrebuttal.	**xDSL ISSUES** ***Line Sharing Costs Generally:*** AT&T/WorldCom seek to avoid paying for the wideband testing system, line sharing OSS, and cooperative testing, despite the fact that Verizon VA has or will incur these costs solely on behalf of CLECs. AT&T/WorldCom's challenges to Verizon VA's splitter costs also should fail. Their assumption of

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		Verizon should not be allowed to double recover loop conditioning costs in non-recurring charges because the cost of providing "conditioned" loops is fully recovered in recurring charges. Murray Direct, pp.43-47. NRC Panel Surrebuttal, pp.58-61 The Commission should reject the proposed line conditioning charges as an embedded cost that, in any event, is unreasonably excessive. NRC Panel Reply, pp.147-57. The Commission should reject Verizon's loop qualification charges as recurring database development and maintenance cost. NRC Panel Reply, pp. 160-71. The costs of populating Verizon's Loop Facility Assignment and Control System ("LFACS") and other databases with the relevant loop makeup information are already captured in Verizon's factors. The costs for mechanized access to LFACS would fall within the scope of the competition-onset costs and should not be borne solely by competitors. Panel Surrebuttal, pp. 62-64. Neither Verizon nor any of its affiliates should be allowed to provide DSL-based services over fiber facilities until Verizon has in place approved rates, terms and conditions for such services for unaffiliated competitors. NRC Panel Reply, pp.104-05. The Commission should make a CLEC's use of	splitter placement on Verizon VA's MDF is unrealistic, ignores the practical consequences of such a configuration, and is inconsistent with FCC requirements. They provide no evidence to challenge Verizon VA's splitter installation costs, which were appropriately determined using a well-accepted factor methodology and validated by independent vendor invoices. *See* VZ-VA Panel Direct at 144-146; VZ-VA Non-Recurring Panel Surrebuttal at 103-129. ***Wideband Testing System:*** Wideband testing is necessary to provide a fully functional xDSL-compatible loop at its initial provisioning turn-up to the CLEC. Indeed, this testing results in lower overall costs, because without it, trouble sectionalization, isolation, and repair on dedicated and shared xDSL lines would require multiple dispatches of service technicians to central offices and customers' premises. The CLECs should bear the costs associated with this system, and should not be permitted to opt out of it, as AT&T/WorldCom propose. Permitting the CLECs to do so would decrease service quality and increase costs to those CLECs that choose WTS. Further, including WTS costs in expense loadings -- as AT&T/WorldCom propose -- would be improper because costs that are incurred only in connection with xDSL services would then be spread over all products and services. This would constitute an inappropriate subsidy by basic telecommunications users — that is, voice customers — to users of advanced services. Finally, Verizon VA's WTS costs were *not* incurred as a result of Verizon VA's retail systems. Rather, they were incurred on behalf of CLECs. *See* VZ-VA Panel Direct at 151-153; VZ-VA Non-Recurring

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		Verizon's Wideband Testing Systems optional. NRC Panel Reply, pp.106-18. The Commission should reject the cooperative testing charge as unnecessary. NRC Panel Reply, pp.143-47. The Commission should reject Verizon's asserted costs for development and maintenance of OSS for line sharing as unsubstantiated and should categorize this cost as a recurring cost. NRC Panel Reply, pp.118-22. The Commission should reject Verizon's attempt to use its Two Wire New Initial and Two Wire New Additional loop costs to generate per line costs for line sharing. NRC Panel Reply, pp.123-26. The Commission should base line sharing costs on the assumption of the most efficient splitter placement. NRC Panel Reply, pp.126-29. The Commission should reject Verizon's proposed EF&I factors as inappropriate. NRC Panel Reply, pp.129-33. The Commission should reject Verizon's Administrative & Support charge for Option A and reduce it to $4.05 per month for Option C. NRC Panel Reply, pp.134-40. The Commission should order Verizon to generate a direct estimate of its splitter installation costs. NRC Panel Reply, pp.141-43.	Panel Surrebuttal at 104-110. ***Line Sharing OSS Costs:*** Contrary to AT&T/WorldCom's assertions, Verizon VA's line sharing OSS costs are *fully* explained in Verizon VA's cost studies and are supported by the record. As Verizon VA's cost study explains, line sharing OSS costs were divided into three categories: (1) those to be shared between line sharing and line splitting; (2) those to be shared among line sharing, line splitting, and subloop unbundling; and (3) those related to internal ordering and billing OSS that are shared by line splitting and line sharing. The first two categories of expenditures were capitalized; the third was assumed to be 60% capital and 40% expense. The capitalized expenditures were multiplied by the capital portion of the ACF that assumes a five-year asset life for the software. Verizon VA applied a 15% factor to the initial investment to derive an estimated annual software maintenance cost. Verizon VA then added the capital related annual cost to the annual OSS maintenance cost to develop an annual cost. That cost was divided by the five-year forecast for each of the three defined categories to develop a monthly per-line cost, to which the common overhead and gross revenue loading factors were then applied. The cost study also provides the cost calculations, supporting data, and assumptions. *See* VZ-VA Panel Direct at 146-150; VZ-VA Non-Recurring Panel Surrebuttal at 111-12. Moreover, Verizon VA's line sharing OSS costs should not be recovered in Verizon VA's recurring rates. These costs are incurred as a direct result of providing a UNE to the CLECs, and therefore the CLECs should bear these costs. Spreading these costs to all services, as AT&T/WorldCom propose, would be inappropriate and would result in

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		The Commission should reject the proposed charge to add ISDN electronics as a recurring cost. NRC Panel Reply, pp.157-60.	an improper subsidy to AT&T/WorldCom. *See* VZ-VA Non-Recurring Panel Surrebuttal at 114. Further, Verizon VA is not "double recovering" line sharing OSS costs. Verizon VA makes a specific adjustment to its annual cost factors to exclude access to OSS costs, thus making double recovery impossible. In any event, no such adjustment is necessary with respect to line-sharing OSS costs because Verizon VA has not yet incurred ongoing line sharing software maintenance costs. *See* VZ-VA Non-Recurring Panel Surrebuttal at 114-115. Finally, Verizon VA's proposal to spread the development costs of line sharing OSS should be adopted. Software generally has only a three- to five-year life; therefore, it is appropriate (and common) to recover the associated costs over a five-year period. Moreover, xDSL and line sharing have been explicitly designed as interim technologies. Recovery of the costs associated with line sharing OSS is therefore quite unlikely unless confined to a limited, 5-year period. *See* VZ-VA Non-Recurring Panel Surrebuttal at 115-116. ***Line Sharing Splitter Costs:*** Verizon VA's splitter costs are reasonable. Verizon VA appropriately applied an EF&I factor for splitter installation costs consistent with well-accepted costing methodology. Verizon VA has confirmed these costs with independent vendor invoices. AT&T/WorldCom provide no evidence that these costs are inflated. Rather, they rely on technically infeasible "frame-mounted" splitters to minimize their costs, even though such splitters take up to five times the

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			amount of space occupied by rack-mounted splitters. Contrary to AT&T/WorldCom's claims, it is entirely appropriate to recover administration and support expenses, even when the CLEC owns the splitter. Verizon VA incurs these general expenses for *all* UNEs. There is no reason that a CLEC who chooses to own the splitter should avoid these costs. Moreover, Verizon VA' use of the factor method to derive labor times is appropriate, given the numerous activities and organizations involved in engineering, furnishing and installing splitters. Related charges for administrative/wholesale marketing costs are appropriate because the activities contemplated by those charges are essential to design and development of products, definition of system requirements, and coordination with CLECs. Similarly, splitter maintenance -- which includes replacement of the splitter card when necessary, joint testing of the splitter card, and completion of the paperwork associated with the maintenance and return of the potentially defective splitter card -- renders application of the EF&I factor necessary, notwithstanding AT&T/WorldCom's assumptions to the contrary. *See* VZ-VA Panel Direct at 154-162; VZ-VA Non-Recurring Panel Surrebuttal at 119-127. ***Cooperative Testing Costs:*** Verizon VA's cooperative testing charges are appropriate. Verizon incurs these costs only when a CLEC asks Verizon VA to perform this testing. There is no reason to provide the CLECs this testing — which is above and beyond normal testing — free of charge. *See* VZ-VA Panel Direct at 142-144; VZ-VA Non-Recurring Panel Surrebuttal at 128-129.

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			Loop Conditioning Costs: The Commission has already ruled that carriers may recover loop conditioning costs when a CLEC requests removal of load coils and bridge taps so that the CLEC may provide xDSL services to end users. Verizon VA's recovery of its costs of performing this work is both required under the Act and entirely consistent with forward-looking costing principles. Further, Verizon VA's estimates of the work steps and time required for loop conditioning are reasonable and supported by the record. AT&T/WorldCom's NRCM fails to account for non-recurring costs associated with provisioning xDSL-compatible loops. As a result, the only record evidence as to these costs is in the Verizon VA model, and the Commission should accept those cost figures. *See* VZ-VA Panel Direct at 138-142; VZ-VA Non-Recurring Panel Rebuttal at 60-64; VZ-VA Non-Recurring Panel Surrebuttal at 130-144. ***Loop Qualification Costs:*** The Commission also should adopt Verizon VA's loop qualification charges. Verizon VA has created a loop qualification database for the benefit of all xDSL end users — including the end users served by CLECs. Verizon therefore properly spreads these costs among all xDSL lines — wholesale and retail. Verizon VA's costs for manual loop qualification and engineering query also are appropriate. When a CLEC requests that Verizon VA manually review its records to provide additional loop information, the CLEC should bear the costs. *See* VZ-VA Panel Direct at 127-36; VZ-VA Non-Recurring Panel Rebuttal at 54-60; VZ-VA Non-Recurring Panel Surrebuttal at 144-154.

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			AT&T/WorldCom's attacks on Verizon VA's loop proposed qualification costs should be rejected. First, AT&T/WorldCom essentially ask the Commission to *assume* that all of the relevant loop qualification data is somehow magically in Verizon VA's databases, and that Verizon VA incurs virtually no costs to provide this data. AT&T/WorldCom ignore reality. Verizon VA has created a loop qualification database for the benefit of all xDSL end users — including the end users served by CLECs. Verizon therefore properly spreads these costs among all xDSL lines — wholesale and retail. *See* VZ-VA Panel Direct at 130-132; VZ-VA Non-Recurring Panel Rebuttal at 54; VZ-VA Non-Recurring Panel Surrebuttal at 147-152. Second, when a CLEC requests that Verizon VA manually review its records to provide additional loop information requested by the CLEC, the CLEC should bear the costs. AT&T/WorldCom's claim that the CLECs should not bear these costs because this information should already be in Verizon VA's databases is not only factually incorrect, it violates cost causation and forward-looking principles. *See* VZ-VA Panel Direct at 136-137; VZ-VA Non-Recurring Panel Rebuttal at 54-55; VZ-VA Non-Recurring Panel Surrebuttal at 152-154 ***ISDN Electronics:*** Verizon VA's proposed costs for adding ISDN electronics are appropriate. This equipment is dedicated to the CLEC, and recovery on a non-recurring basis is particularly appropriate because low customer demand for ISDN leaves Verizon VA unlikely to

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			be able to recover its costs through recurring charges. Moreover, CLECs can avoid this optional cost by purchasing and installing repeaters themselves. *See* VZ-VA Panel Direct at 162-164; VZ-VA Non-Recurring Panel Surrebuttal at 154-55.