Critique of ATT/WCOM
Non-Recurring Model

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Expedited Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration	)	CC Docket No. 00-218
In the Matter of Petition of Cox Virginia Telecom, Inc., etc.	)	CC Docket No. 00-249
In the Matter of Petition of AT&T Communications of Virginia Inc., etc.	)	CC Docket No. 00-251

VERIZON VIRGINIA INC.

REBUTTAL TESTIMONY OF RALPH CURBELO, CARLO M. PEDUTO II, AND JOHN WHITE ON THE AT&T/WCOM NON-RECURRING MODEL

AUGUST 27, 2001

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1 **I. INTRODUCTION (JDPL Issues II-1 to II-1-d; II-2 to II-2-d; IV-36)**

2

3 **Q. Mr. Curbelo, are you the same Ralph Curbelo who filed direct testimony concerning**
4 **non-recurring costs and costs associated with line sharing and xDSL-compatible**
5 **loops on July 31, 2001?**

6 A. Yes.

7

8 **Q. Mr. Peduto, are you the same Mike Peduto who filed direct testimony concerning**
9 **non-recurring work activities on July 31, 2001?**

10 A. Yes.

11

12 **Q. Mr. White, are you the same John White who filed direct testimony concerning line**
13 **sharing and xDSL-compatible loops on July 31, 2001?**

14 A. Yes.

15

16 **Q. What role did each member of this Panel play in the preparation of this testimony?**

17 A. Although all members of this Panel have reviewed and support this testimony in its
18 entirety, each Panel member assumed primary responsibility for specific segments of the
19 testimony. Specifically:

20 • Mr. Curbelo discusses non-recurring costs generally, as well as non-recurring costs
21 associated with line sharing and xDSL-compatible loops.

22 • Mr. Peduto discusses non-recurring costs and work activities from an operations
23 perspective.

- Mr. White discusses non-recurring costs with respect to the provision of xDSL-compatible loops.

Q. Please summarize your main conclusions.

A. Based on our review of the AT&T and WorldCom Non-Recurring Cost Model Version 2.2 ("AT&T/WorldCom NRCM"), we conclude that the model has numerous critical flaws that render it unusable for determining the forward-looking non-recurring costs that Verizon Virginia Inc. ("Verizon VA") will incur to provision unbundled elements (UNEs). In particular, we conclude the following:

Non-Recurring Costs in the Ordering Stage. The AT&T/WorldCom NRCM improperly assumes that all orders should flow through electronically and accordingly fails to account for the manual costs that are necessarily incurred in connection with certain types of orders. First, even for orders that are designed to flow through, some fallout due to errors (often by CLECs) is inevitable and will cause costs. Second, some types of orders are not designed to flow through and will require manual handling even in a forward-looking environment because it would be neither efficient nor reasonable to design and build the systems necessary to permit such orders to flow through electronically. The AT&T/WorldCom NRCM ignores the costs associated with such orders.

General Non-Recurring Costs at the Provisioning Stage. The AT&T/WorldCom NRCM makes a number of general errors in connection with non-

recurring costs at the provisioning stage. First, its assumption of a 98% flowthrough rate for provisioning is baseless. AT&T/WorldCom again disregard the fact that certain complex functions are not and cannot be automated in a cost efficient manner. Moreover, even for those elements designed to flow through, AT&T/WorldCom's fallout rate is unrealistically low given currently available technology, particularly in cases where provisioning requires the involvement of numerous OSS. Not surprisingly, each of the three examples AT&T/WorldCom cite to support their flowthrough rate collapses under even cursory scrutiny.

Second, the AT&T/WorldCom NRCM inappropriately disregards the necessary coordination activities performed — at CLECs' request — by the Verizon Regional CLEC Coordination Center (RCCC).

Third, AT&T/WorldCom's model fails to account for the design time needed to provision certain UNEs.

Central Office Wiring. The AT&T/WorldCom NRCM has two critical flaws in its assumptions concerning central office (CO) wiring. First, 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 the same end user. Second, the AT&T/WorldCom NRCM makes incorrect assumptions about distributing frames and the time needed to perform cross-connects. These erroneous assumptions lead

AT&T/WorldCom to significantly understate the frequency with which manual cross-connects must be performed and the time it takes to perform them.

Field Installation. The AT&T/WorldCom NRCM erroneously omits costs for dispatching a field technician to perform cross-connects at the Feeder Distribution Interface (FDI). AT&T/WorldCom assume 100% dedicated outside plant (DOP) so that cross-connects are in place and never reconfigured. Such a network would be extraordinarily inefficient, costly, and unrealistic even in a forward-looking environment.

Copper-Fiber Ratio and Electronic Provisioning of Loops. 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. AT&T/WorldCom hypothesize a 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 Main Distributing Frame (MDF). However, AT&T/WorldCom fail to recognize that such a handoff via a multiplexed, channelized DS1 would constitute an entirely different UNE than a handoff on two copper wires. Therefore, the costs of those different elements cannot properly be combined. In addition, the technology on which AT&T/WorldCom rely is not yet commercially or technically feasible and will not be deployed, if at all, for many years. As a result, AT&T/WorldCom's flawed assumptions about provisioning fiber-fed loops turn its copper-fiber ratio into an effective discount on the non-recurring costs Verizon VA incurs (and will incur in a forward-looking environment) in provisioning actual loops.

DSL. 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. AT&T/WorldCom's claim that they are entitled to loop qualification and loop conditioning without paying any nonrecurring charges is incorrect. They unreasonably assume that Verizon VA can completely mechanize its loop qualification database and thus eliminate all non-recurring costs for inquiries requiring manual intervention. Such a mechanization effort, however, would be exorbitantly expensive and impractical. In addition, AT&T/WorldCom propose that line conditioning costs be recovered, if at all, as recurring costs — despite Commission orders specifically allowing ILECs to recover such costs on a non-recurring basis.

General Flaws with the AT&T/WorldCom NRCM. The AT&T/WorldCom NRCM suffers from several pervasive deficiencies. First, for many UNEs, the AT&T/WorldCom NRCM utterly fails to account for necessary non-recurring costs, and some UNEs are simply omitted entirely. Second, AT&T/WorldCom's procedures for estimating activity times are unexplained and flawed, and result in unrealistically low estimates. Finally, the AT&T/WorldCom NRCM is based on erroneous assumptions about the capabilities and limitations of databases used in ordering and provisioning UNEs.

Rate Structure. The AT&T/WorldCom NRCM is based on an erroneous theory — that any activity that might possibly benefit some other CLEC, or Verizon VA itself,

at some hypothetical point in the future should be allocated to recurring costs (or some undefined "elsewhere" category) or simply not recovered, even if the requesting CLEC directly caused the entire cost to be incurred. But Verizon VA is entitled to recover one-time costs caused by a CLEC order from that CLEC on a non-recurring basis. In any event, AT&T/WorldCom's own recurring cost model fails to account for the significant non-recurring expenses that AT&T/WorldCom purport to allocate to recurring costs. AT&T/WorldCom's NRCM thus shifts very substantial costs into oblivion. In addition, AT&T/WorldCom inappropriately disaggregate disconnect costs and fail to account for the additional costs that are incurred for orders expedited at the CLEC's request.

II. NON-RECURRING COSTS AT THE ORDERING STAGE (JDPL Issues II-1 to II-1-d; II-2 to II-2-d; IV-36)

Q. How do the AT&T/WorldCom and Verizon VA models for non-recurring costs differ in their assumptions about "fallout" and "flowthrough" in the service ordering stage?

A. The AT&T/WorldCom NRCM assumes that all CLEC orders, no matter how complex or uncommon, will flow through the mechanized ordering system and be sent to the provisioning OSS without any need for manual processing. As Mr. Walsh states, AT&T/WorldCom's model "does not consider *any* fallout in the service-ordering phase of CLEC request processing" (Walsh Direct at 33 (emphasis added)) and accordingly assumes that Verizon VA will never incur *any* costs for manually processing an order before it moves to the provisioning stage.

Verizon VA's model differs in two respects. First, it recognizes that no system is 100% perfect, so that in the real world some fallout will occur at the ordering stage even for types of orders that are designed to flow through electronically. Second, Verizon VA's NRCM recognizes that not all UNE orders can or should be designed to be handled automatically, because it would be neither cost-efficient nor practical to create the necessary OSS and mechanized processes for every kind of order a CLEC could submit. (We also understand that AT&T/WorldCom's recurring cost model includes no costs for the design and implementation of these new OSS assumed by the AT&T/WorldCom NRCM.) In such instances, manual handling is the most efficient and cost effective means of processing an order. Thus, while Verizon VA's NRCM reflects the fact that, in general, the percentage of orders that are handled manually will be reduced in the future, the model also recognizes that some requests must by design require manual intervention.

Q. AT&T/WorldCom's Non-Recurring Cost Model Technical Assumptions Binder (NTAB) defines fallout as "[o]rders that were designed to flow through automated OSSs and activate intelligent network elements, but fail to do so." (NTAB at 21.) Do you agree with this definition?

A. Generally yes. This definition makes it clear that the AT&T/WorldCom NRCM recognizes that "fallout" should be limited to those orders and services that are designed to flow through the systems yet fail to do so. In that sense, AT&T/WorldCom and Verizon VA agree.

1 **Q. So what is the difference between Verizon VA and AT&T/WorldCom as to "fallout"**
2 **at the ordering stage?**
3 A. AT&T/WorldCom ignore the possibility of (and costs for) fallout at the ordering stage.
4 (*See* Walsh Direct Testimony at 33.) But Verizon VA encounters situations in which
5 orders that were designed to flow through electronically fall out in the ordering stage,
6 often due to CLEC actions. The Typical Occurrence Factor(s) for the Telecom Industry
7 Services Operating Center (TISOC) have been modified to account for costs of handling
8 requests that fall out. While such occurrences meet even AT&T/WorldCom's definition
9 of fallout, their model fails to take account of any resulting costs in the ordering stage.
10
11 **Q. What about orders that are not designed to flow through the ordering stage**
12 **electronically?**
13 A. AT&T/WorldCom simply fail to recognize that some orders are *not* designed to flow
14 through the system because it is either technically infeasible or economically inefficient
15 to design automated systems to handle such orders. AT&T/WorldCom's fundamental
16 mistake is assuming that all possible UNE orders can and should be designed to flow
17 through without human intervention, and this error is compounded by their failure to
18 recognize and reflect the significant costs of the extravagant (and likely impracticable)
19 OSS necessary to accomplish such flowthrough.
20

1 **Q. Why can't all orders be designed to flow through electronically as**
2 **AT&T/WorldCom assume?**
3 A. For an order to flow through without human intervention, all the necessary OSS must
4 have been customized to accommodate electronic ordering of that UNE. If a UNE, or the
5 necessary process for ordering that UNE, is complex and requires numerous levels of
6 checks and coordination, designing a flowthrough process would be time-consuming and
7 costly, if it could be done at all. Moreover, if a UNE is not routinely ordered, Verizon
8 VA cannot justify the cost and effort — nor would a CLEC be willing to pay the resulting
9 price — of designing a mechanized ordering process for it. (Indeed, CLECs do not even
10 want to pay for the mechanized ordering process to handle high-volume routine requests.)
11 In these types of instances, the costs of creating the systems necessary to mechanize the
12 process far outweigh any benefits, and manual processing is the most cost-efficient
13 method of handling the order even on a forward-looking basis.
14
15 **Q. What would be the effect on Verizon VA's recurring costs if it developed the**
16 **systems needed to permit all orders to flow through electronically?**
17 A. Because planning and implementing the necessary systems would be extremely costly
18 (even assuming it were technically possible), Verizon VA would incur a significant
19 amount of recurring costs that it would have to recover from the CLECs. Indeed, for
20 complex or less common orders, these recurring costs would likely be higher for the
21 CLECs than the non-recurring costs for manual intervention that are included in Verizon
22 VA's NRCM. In any event, we are not aware of any place in AT&T/WorldCom's

recurring cost model that accounts for the recovery of such costs, even though AT&T/WorldCom assume the existence of these complex new systems.

Q. What are some examples of the types of orders that require manual processing and for which designing OSS to permit electronic flowthrough does not make sense?

A. Verizon VA's Telecom Industry Services Operating Center (TISOC), recently redesignated the National Marketing Center (NMC), manually handles many CLEC service orders. One type of order that requires manual intervention by design is a service order for more than five new POTS loops at a single location. To process such an order, Verizon VA's TISOC representatives must request that Verizon VA's outside plant engineers perform a facility check to verify that there are enough facilities at that particular location to fulfill the request. Obviously, in designing its network, Verizon VA has had to use its best engineering judgment to estimate how many total lines end users will use. Such an estimate may not have accounted for an order containing an unusually large number of lines at a single premises. As a result, Verizon has learned through experience in the retail environment that such a facility check is useful before promising a customer a due date so as to avoid having to move the due date if it turns out additional facilities will be required. Verizon VA uses the same approach in the wholesale environment for the same reasons; indeed, CLECs themselves have made clear that they want to know up front if the facilities do not exist so they can inform the end customer of any delay or change in service they propose.

Mr. Walsh himself concedes that "in real world telephony, field checks to ensure that facilities exist to meet the demand will occur." (Walsh Direct at 34.) Verizon VA provides elements in the context of "real world telephony," not some hypothetical world, and, though Verizon VA does not usually make field checks prior to processing service orders, it is entitled to recover these real costs when they are incurred. Mr. Walsh's assertion that these costs are recurring is simply wrong: this is a one-time cost directly caused by a CLEC request and incurred to fulfill the CLEC's order.

As discussed in the Verizon Panel Testimony on Unbundled Network Element and Interconnection Costs, filed on July 31 ("Direct Panel Testimony"), another example of an order that requires manual processing is an order for a Digital Designed Loop for xDSL.[1/] This type of order requires multiple tasks and coordination that cannot be handled electronically. The AT&T/WorldCom NRCM assumes, again without explanation or justification, no time for performing this work.

Even in the absence of complex tasks, the low volume of orders for certain services would not justify the cost of designing a mechanized flowthrough process.

[1/] *See* Direct Panel Testimony § XII.C.

1 **Q. Mr. Walsh asserts that Verizon VA's electronic ordering system between the**
2 **CLECs and Verizon VA should incorporate front-end editors to minimize service**
3 **order errors and to return erroneous orders to CLECs electronically. (Walsh**
4 **Direct at 15.) Do you agree?**
5 A. Generally yes. Verizon VA's gateway systems do include front-end editing processes
6 that recognize various syntax and formatting errors and electronically return orders with
7 such errors to the CLEC in real time. In other cases, orders may pass these initial edits
8 but be rejected by another system in the ordering flow and be returned to the CLEC
9 within hours. But this does not change the facts that (1) some orders will require manual
10 handling by design, even if the CLEC has entered the initial order without any errors, and
11 (2) orders with substantive errors by the CLEC (*i.e.*, those that may not be apparent from
12 the face of the order due to an incorrect format or syntax or those with general content
13 issues that may not be apparent to the appropriate intelligence embedded in the ordering
14 systems) generally will not be caught by automated front-end editors and are likely to
15 require manual intervention at some point during the process.
16
17 **Q. Will Verizon VA handle CLEC-initiated modifications to service orders manually?**
18 A. In keeping with its desire to enhance flowthrough of as many orders as possible, Verizon
19 has mechanized the handling of some CLEC changes. For instance, requests to cancel an
20 order generally will flow through electronically, and CLEC changes to due dates will
21 flow through under certain conditions. Verizon has already included this flowthrough in
22 its cost study assumptions. But the myriad of other potential modifications to the many
23 fields of the local service request (LSR) that a CLEC might request are so numerous that

creating a program capable of processing every potential modification for each type of order would be cost-prohibitive.

III. GENERAL NON-RECURRING COSTS AT THE PROVISIONING STAGE (JDPL Issues II-1 to II-1-d; II-2 to II-2-d; IV-36)

A. AT&T/WorldCom's Assumption of a 2% Fallout Rate for the Provisioning of All Orders Is Unsupported and Unrealistic.

Q. What do AT&T/WorldCom assume with respect to fallout during the provisioning process?

A. AT&T/WorldCom apply a 2% fallout rate across the board to all types of orders for the entire provisioning process. As noted earlier, it is important to distinguish here between "fallout" — that is, manual processing that is needed in connection with orders that are *designed* to flow through OSS electronically — and situations in which manual handling of orders is required by design because mechanization is not technologically possible or would be too costly to be efficient.

Q. What is an example of a provisioning task that AT&T/WorldCom assume happens electronically but that is designed to be handled manually?

A. One example would be the assignment of facilities needed for the installation of a new DS1 loop. DS1 facilities in the local loop are not inventoried in Verizon's Loop Facility Assignment and Control System (LFACS) because that system is not equipped to handle the demands of multi-channel facilities like a DS1. As a result, orders for DS1 loops are directed to the Mechanized Loop Assignment Center (MLAC) and are then forwarded to

the Outside Plant Engineer for manual handling. That engineer reviews the order, relates the request to engineering records, and, if DS1-capable facilities are in the area, assesses the availability of spare DS1 facilities. If such spares exist, the Engineer assigns the appropriate facility to the order and directs the assigned order to the Circuit Provisioning Center (CPC) for design. This manual handling is done by design because the volume of UNE DS1s is low, and the complexity of designing a system to flow through every possible type of UNE DS1 would result in costs that far exceed any savings from the elimination of manual handling.

Another example of manual work during the provisioning stage, discussed in more detail below in subsection B, is the involvement of the RCCC in provisioning UNEs such as loops.

Q. Even for those cases in which provisioning is designed to occur electronically, is AT&T/WorldCom's 2% fallout rate realistic?

A. No. Even in a forward-looking environment, AT&T/WorldCom's assumption that 98% of all orders, no matter how complex, will be provisioned electronically is not realistic. Two percent is optimistic even for the very simplest of orders, but it is not possible, at least given currently available technology, for more complex orders. That is particularly true for orders for which the provisioning process may take numerous stages and require the involvement of multiple OSS. Even AT&T/WorldCom's own "experts" recognized this point. Verizon obtained in discovery an internal AT&T/WorldCom document that shows that AT&T/WorldCom's own witnesses believe that, even if an individual system

might have a 1-2% flowthrough rate, "when all the databases and systems in, for example, the provisioning process are put together, a 1-2% flow through performance is not 'do-able' in the foreseeable future."[2/]

A good example is the provisioning of a Four-Wire Loop UNE – Initial. Based on empirical data, Verizon VA's forward-looking model assumes that this UNE will require manual assignment due to "fallout" 4% of the time. In general, this 4% occurrence rate for this *part* of the provisioning process is the functional equivalent of AT&T/WorldCom's 2% fallout assumption. However, AT&T/WorldCom simply stop there and fail to recognize that there are further steps in the provisioning process where manual tasks may be required. For example, based on empirical data, the RCCC needs to manually resolve roadblocks on an order for a Four-Wire Loop UNE about 25% of the time; Verizon's model adjusts this downward on a forward-looking basis to 5%. AT&T/WorldCom fail to account for this additional possible fallout.

Common sense suggests and experience shows that the overall rate of fallout for an order will increase to the extent it is more complex and involves additional systems. Yet the AT&T/WorldCom NRCM assumes the same limited number of work steps for all

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[2/] Non-Recurring Cost Team, *Denver Forum NRC Issues* at 8 (Aug. 20-22, 1997) (attached hereto as Attachment A) (hereinafter *AT&T Denver NRC Document*). These document excerpts also were provided by AT&T in discovery in a Rhode Island UNE cost proceeding and introduced into the record by Bell Atlantic-Rhode Island during the cross-examination of AT&T's NRCM witness, James Recker, on March 3, 1999. AT&T did not object to the introduction of the document. Hearing, *In Re Bell Atlantic Rhode Island*, Docket No. 2681 (R.I. Pub. Utils. Comm'n Mar. 3, 1999). AT&T produced the document again in these proceedings in response to VZ-VA IV-13.

UNEs and simply applies a 2% overall fallout rate across the board. By contrast, Verizon VA's model assigns a distinct and realistic fallout rate (as part of the Occurrence Factor) to each potential step (Activity Description) of the provisioning process. Then, in developing the cost for a particular element, it applies the occurrence/fallout rate for that step to a particular element type if and only if that element would require that particular step. In the Four-Wire Loop example given above, Verizon VA would apply fallout rates for the MLAC and the RCCC, but not the fallout rate for the Activity Description "Schedule Verizon Work Teams" because that step would not be involved in provisioning a Four-Wire Loop UNE.

Q. Are there existing OSS or technology currently available that would permit the 2% fallout rate assumed by AT&T?

A. No. We are not aware of any existing systems or technology that would support such a rate. Moreover, AT&T/WorldCom themselves have been unable to point to any such existing system or technology. When asked in discovery, AT&T/WorldCom could identify no LEC or system that could achieve the level of fallout AT&T/WorldCom blithely assume.[3/] Instead, all that AT&T/WorldCom could assert was that, "generally speaking, ILECs have been using network elements and processes and systems for provisioning *retail* services that are directly related to the UNEs," so, in AT&T/WorldCom's view, somehow these existing processes and systems "allow[] for

[3/] *See* Responses to VZ-VA IV-21 & IV-22 (all cited discovery responses are attached hereto as Attachment B).

the flow through functionality to exist."[4] But they do not, at least not at the 98% flowthrough rate assumed by AT&T.

Q. In purported support of its fallout rate, AT&T/WorldCom's model documentation relies on a 1996 Bellcore document entitled "Generic Requirements for Operations Based on the Telecommunications Management Network (TMN) Architecture."[5] (NTAB at 23.) What is TMN?

A. TMN is a *theoretical* construct that envisions electronic interoperability and integration between a deployed "intelligent network," large multiple databases, and the various OSS involved in ordering, provisioning, maintenance, administration, and operation. Contrary to AT&T/WorldCom's implication, however, even TMN envisions manual intervention. AT&T/WorldCom quote out of context the isolated phrase that "[a]ctivation will occur at the time of assignment" as though that means provisioning can all happen electronically with TMN. (NTAB at 23.) Prior to the scenario in which that phrase appears, however, the document describes a far more complicated scenario for "immediate service activation" that involves manual intervention.[6] Thus, read in context, the selective quotation from the Bellcore paper offers no support for the reasonableness of the AT&T/WorldCom NRCM's proposed fallout rate, even assuming TMN existed or would exist in the near future.

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[4] Response to VZ-VA IV-21 (emphasis added).

[5] Bellcore GR-2869 (Oct. 1996) (excerpt attached hereto as Attachment C).

[6] *See id.* at 4-17.

Q. Have AT&T/WorldCom's own experts conceded that the systems envisioned by the TMN theory are not currently available and are not likely to be available anytime soon?

A. Yes. In an internal document provided to Verizon VA in discovery in this and previous proceedings, even AT&T/WorldCom's own "panel of experts" recognized that the TMN model was a fantasy system: "There does *not appear to be a 'complete' model that exists or can be built*, consisting of system components that[,] individually and when linked, meet TMN Generic Requirements . . . ." For that reason, the panel itself expressed "concern" that the OSS assumptions in the AT&T/WorldCom NRCM are not supportable and expressly indicated that AT&T/WorldCom are not relying on the existence of TMN.[7]

The OSS assumptions embodied in the AT&T/WorldCom NRCM are not supportable given currently available technology. Even the development of the industry standards for the requisite systems is years away. Actual deployment of such an architecture will occur, if at all, long after that. The fact that AT&T/WorldCom rely on the Bellcore TMN document in purported support of their assumptions, while simultaneously conceding that TMN is nonexistent, only illustrates the fantasy nature of AT&T/WorldCom's OSS assumptions.

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[7] *AT&T Denver NRC Document* at 2.

Q. The AT&T/WorldCom NRCM points to the Easy Access Sales Environment (EASE) system to support its assumption that only 2% of CLEC orders "fall out" in the provisioning process. (NTAB at 23-24.) Is this analogy appropriate?

A. No. AT&T/WorldCom are comparing apples to oranges. The Southwestern Bell Telephone (SWBT) EASE system fallout rate quoted by Mr. Walsh is for simple residential retail orders, not UNEs. Indeed, AT&T/WorldCom themselves have conceded in discovery that EASE is nothing more than "an example of a mechanized process with a low fallout rate" and is not "being used to deliver UNEs."[8/] But, of course, the fact that there exists "a mechanized process with a low fallout rate" for simple services unrelated to UNEs says absolutely nothing about whether AT&T/WorldCom's assumed 2% fallout rate in this proceeding is realistically achievable.

AT&T recognized that EASE was entirely inapposite in comments filed before this Commission rejecting the EASE systems on which it now relies:

> C-EASE is not an adequate substitute for the electronic interfaces with SBC's OSS that the [Telecommunications] Act requires. . . .
>
> The limitations of C-EASE are inherent in its nature. *C-EASE is not an interface that allows AT&T's systems to communicate with SBC's systems.* Rather, C-EASE requires an AT&T service representative to act as an interface between the two systems, entering customer information first into the SBC system, and second into the AT&T system. This duplication of effort increases not only the time and cost of customer service but also the risk of error. . . .
>
> *Moreover, C-EASE is limited to simple residential orders. It cannot be used to order unbundled network elements. . . .* Even for resale, it cannot be used to submit supplemental orders, nor can it be used for "partial migrations," where a customer seeks to move only some of its lines to a different carrier. . . . And SBC's counterpart system for business orders

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8/ Response to VZ-VA IV-19.

("B-EASE"), which uses a different operating system, is so limited in its capabilities as to be unworkable even as an interim, stop-gap measure.[9]

Q. Are there other reasons why the flowthrough rate for EASE is irrelevant to the appropriate flowthrough rate for provisioning UNEs?

A. Yes. In fact, SWBT's representatives have explained this in testimony in several other proceedings where AT&T was a party. For example, in a proceeding before the Public Utilities Commission of the State of California, Jacqueline W. Richardson, Beth Lawson, and Nathan Sparks submitted a joint declaration on December 15, 1997, that specifically addressed the flowthrough rate allegedly achieved by EASE.[10] That Joint Declaration provides three reasons why the EASE system's flowthrough rate offers no support for the flowthrough rate in the AT&T/WorldCom NRCM for provisioning UNEs.

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[9] Comments of AT&T in Opp. to SBC's Section 271 Applic. for Okla., at 31-32, *In re SBC Communications, Inc.*, CC Docket No. 97-121 (FCC filed May 1, 1997) (excerpts attached hereto as Attachment D) (emphases added and citations omitted). An affidavit submitted on behalf of AT&T in support of its comments in that proceeding stated:

> However, EASE will be used only on an interim basis because, as SWBT has acknowledged, *it is incapable of supporting the UNE platform (or even the ordering of individual UNEs, such as unbundled loops), and because, even for resale, EASE will not allow AT&T to serve business customers adequately and will require excessive manual intervention and redundant operations even where it can be used (i.e., for residential accounts).*

Aff. of Nancy Dalton on behalf of AT&T Corp. at 29, *In re SBC Communications, Inc.*, CC Docket No. 97-121 (FCC filed May 1, 1997) (emphasis added) (excerpts attached hereto as Attachment E).

[10] Joint Declaration of Jacqueline W. Richardson, Beth Lawson & Nathan Sparks, Attachment D to Opening Comments of Pacific Bell in the OSS/NRC/Changeover Phase of OANAD, *In re Open Access to Bottleneck Services and Network Architecture Development of Dominant Carrier Networks*, Docket Nos. R. 93-04-003, I. 93-04-002 (Cal. Pub. Utils. Comm'n filed Dec. 15, 1997) (excerpts attached hereto as Attachment F).

First, the EASE flowthrough rate reflects only the mechanized transcription of residential retail POTS-type service order requests from an electronic order interface into an internal service order format — that is, activities at the ordering stage. This has nothing to do with flowthrough for provisioning and billing systems. Thus, the AT&T/WorldCom assumption of a 98% flowthrough rate for the *provisioning* and other activities associated with unbundled elements cannot be supported by reference to EASE.

Second, EASE is limited to pre-ordering and ordering the simplest retail telecommunications services. Complex services such as Centrex, ISDN, off-premise extension, hunting, and others are not supported by EASE.

Third, the EASE flowthrough rate referenced by AT&T/WorldCom applies only to ordering residential services, not business services.

Thus, AT&T/WorldCom's attempt to correlate the extremely simple, narrowly-focused EASE pre-order and order flowthrough with the highly complex OSS interrelationships required to support all of Verizon VA's wholesale services is a sham.

1 **Q. AT&T/WorldCom also cite a cost study submitted by U S WEST in another**
2 **proceeding that stated that "97% of all CSB PIC Changes are completely**
3 **mechanized." (NTAB at 23 n.6.) Please comment on this citation.**
4 A. Again, this citation offers no support to AT&T/WorldCom. Primary Interexchange
5 Carrier (PIC) change orders are among the simplest and most routine orders processed.
6 They take an existing, working service and simply change the bits in Line Translations in
7 the switch designating which interexchange carrier the customer has selected as its
8 primary interexchange carrier. What is most significant about the U S WEST study is
9 that, even for such a simple order, U S WEST did not achieve the 98% flowthrough rate
10 that AT&T/WorldCom seek in this proceeding to apply across the board to even the most
11 complex orders.
12
13 **Q. Without those flawed and inapposite examples, do AT&T/WorldCom have *any***
14 **factual support for their flowthrough assumption?**
15 A. No. The fact of the matter is that AT&T/WorldCom's assumption of a 2% across-the-
16 board flowthrough rate for all UNE orders is not realistic, and nothing in the record
17 supports it.
18
19 **B. <u>The AT&T/WorldCom NRCM Disregards the Necessary Role of the RCCC.</u>**
20
21 **Q. Are the activities performed by Verizon VA's RCCC necessary to provision UNEs?**
22 A. Yes. The RCCC plays a critical role in the CLEC provisioning process. It serves as the
23 central organization for coordinating the provisioning activities of various Verizon
24 groups and as Verizon VA's point of contact with CLECs for obtaining all needed

1 assistance. The RCCC plays important roles in the provisioning of new UNE loops to
2 CLECs, as well as in the coordination of critical real-time events in the migration of
3 existing Verizon VA retail customers to CLECs via the hotcut process. The RCCC
4 representatives coordinate various Verizon organizations, including the TISOC,
5 RCMAC, MLAC, CO Frame, and Field Installation, in order to ensure the smooth and
6 accurate handling of loop installations and transfers. The RCCC also works with the
7 CLECs to enable nearly simultaneous disconnection of a loop from Verizon VA and
8 connection with the CLEC's facilities. In the absence of this coordination function, new
9 CLEC customers would face the possibility of service interruptions because, for example,
10 Verizon VA performed a cutover before the CLEC was ready to provide service to the
11 end user. Indeed, it is precisely for this reason that CLECs themselves demand the
12 coordination functions and additional services performed by the RCCC.
13
14 **Q. What are some of the typical situations in which the RCCC performs coordination**
15 **activities in connection with a CLEC service order request?**
16 A. One common situation in which the work of the RCCC is necessary involves hotcuts —
17 the transfer of working loops from Verizon VA to a CLEC or from one CLEC to another
18 with minimal interruption of dial tone. The RCCC coordinator receives the CLEC order
19 and properly coordinates the various work steps required to carry out the migration.
20 These work steps include arranging for the necessary resources to perform work at the
21 Verizon frame (which includes cross-connects and dial tone check), the RCMAC work
22 (switch translations), and a technician dispatch if necessary, as well as coordinating the
23 timing of these steps. The RCCC also notifies the CLEC when these tasks are completed

and then, after getting the "go ahead" from the CLEC, coordinates the precise timing for cutting service over to the CLEC. This latter coordination is critical to avoid service disruptions for the new CLEC customer.

Another typical situation in which the RCCC's work is critical is responding to CLEC requests for expedites, postponements, and cancellations. Often these requests arrive with little notice very close to the time at which a cutover was scheduled to be performed, requiring the RCCC coordinator to react quickly to avert a service interruption. In such situations, the coordinator must, among other things, expeditiously contact all Verizon VA personnel who are poised to perform the cutover. Without the RCCC coordinator, CLECs would have no point of contact that could quickly respond to their requests to change an order.

Q. What are some of the specific activities performed by the RCCC that are reflected in Verizon VA's model but not that of AT&T?

A. The RCCC performs numerous specific tasks needed to provision UNEs that AT&T/WorldCom's model simply ignores. For example, RCCC Activity 2 in the Verizon VA model represents the time needed to compare the due date and time for a new order with similar information for existing orders so that the orders can be appropriately prioritized, and every order meets the due date requested by respective CLECs. Similarly, RCCC Activity 18, in which the RCCC contacts the CLEC to verify the requested activity, is necessary to ascertain the nature of the facility requested by the CLEC, verify the CLEC switch termination information and the type of service, and

identify any additional work that must be performed. RCCC Activity 19, in which personnel from the Central Office, Field Installation, and the CLEC are scheduled for simultaneous activities in order to complete a hotcut, is a necessary coordination function to avoid disrupting the end user's service.

C. <u>The AT&T/WorldCom NRCM Fails to Include Sufficient Design Time.</u>

Q. Does AT&T/WorldCom's model allow for sufficient design time?

A. No. Even though the AT&T/WorldCom NRCM documentation itself states that design time is required for certain services, the model provides for either no work time for services that require design or an insufficient amount of time. For example, the AT&T/WorldCom NRCM documentation states that the unbundled four-wire loop "by its very nature, constitutes a designed service/circuit." (NTAB at 37.) Yet the work steps for this element do not allow any activity time (or cost) for design work and mention the CPC only as it relates to the AT&T/WorldCom NRCM's unsupported 2% fallout. *See, e.g.*, NTAB, Att. A at 12 (detailing the work steps for Element 11, four-wire install). AT&T/WorldCom thus admit that this service is designed, but ignore the work activities required for design except in 2% of the cases.

Q. Are there other examples where AT&T/WorldCom admit design time is necessary yet fail to include such time in their NRCM?

A. Yes. AT&T/WorldCom's NTAB appropriately refers to interoffice facilities as "designed . . . transport facilities" (NTAB at 52), yet only accounts for the design effort by Verizon VA in 2% of the cases, as though design for a "designed transport facility" were an example of fallout. *See, e.g.*, NTAB, Att. A at 21 (detailing the work steps for

Element 20, DS-1 Interoffice Transport Install). The fact is that design of a DS1 or DS3 interoffice facility is not a matter of "fallout" — the need for such work is inherent in the element. No system of which we are aware can "electronically design" such an element 98% of the time as AT&T/WorldCom apparently and erroneously assume. Verizon VA's model appropriately reflects that designing a DS1 interoffice facility will take, on average, approximately 25 minutes in a forward-looking environment. The design work includes working with inventories and provisioning characteristics of multi-vendor equipment for which industry standard OSS do not exist.

IV. CENTRAL OFFICE WIRING (JDPL Issues II-1 to II-1-d; II-2 to II-2-d; IV-36)

A. The AT&T/WorldCom NRCM Improperly Assumes 100% Dedicated Inside Plant (DIP).

Q. What is dedicated inside plant?

A. Dedicated inside plant refers to the assignment of switch line equipment (typically referred to as either a switch termination, switch port, switch line, or originating equipment (OE)) to outside plant cable facilities on the Main Distributing Frame (MDF). Today, connections between a specific piece of switching line equipment and a specific outside plant cable pair (feeder pair) are made on a central office's MDF. On a conventional MDF, switching line equipment is cabled to the "horizontal" side of the MDF and the outside plant cable pairs are cabled to the "vertical" side of the MDF. To provide dial tone, a Verizon VA frame technician installs a cross-connect (or "jumper") across the MDF to connect the specific switch line termination to the specific outside plant cable pair to serve that customer. As the following diagram illustrates, in a "non-DIP" environment, when a customer disconnects service, Verizon VA would remove the