BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED	**)**	
COSTING AND PRICING OF UNBUNDLED	**)**	
NETWORK ELEMENTS, TRANSPORT,	**)**	**DOCKET NO. UT-003013**
TERMINATION, AND RESALE	**)**	**Part D**

REBUTTAL

TESTIMONY OF

RENÉE ALBERSHEIM

ON BEHALF OF

QWEST CORPORATION

MARCH 7, 2002

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I. WITNESS IDENTIFICATION

Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS ADDRESS.

A. My name is Renée Albersheim. I am employed by Qwest Corporation (Qwest), as a Staff Advocate for Policy and Law. My business address is 930 15th St., 10th Floor, Denver, CO, 80202.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?

A. Yes, in Part B of this docket.

Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

A. The purpose of this testimony is to rebut certain statements in the testimony of Sidney L. Morrison filed on behalf of WorldCom, Inc.,[1] with regard to Qwest's Operational Support Systems (OSS).

[1] See *In the Matter of Continued Costing and Pricing of Unbundled Network Elements, Transport, and Termination,* Docket No. UT-003013, Part D – Direct Testimony of Sidney L. Morrison, WorldCom, dated December 21, 2001 (Morrison Direct).

II. OVERVIEW OF OSS

Q. PLEASE BEGIN BY DESCRIBING OPERATIONAL SUPPORT SYSTEMS.

A. Qwest uses a variety of computer systems to support the operations of its telecommunications business. An operational support system is a computer system that does not directly provide telecommunications service to customers, but supports employees performing "operational" duties, such as issuing service orders, testing trunks, and maintaining switching systems. These operational support systems are specialized; each performs different functions. Certain operational support systems allow for the ordering of products and services for customers, and others record and process trouble tickets. There are many other OSS that provide a wide variety of other functions.[2]

Q. WHAT PURPOSES DO OPERATIONAL SUPPORT SYSTEMS SERVE IN CONNECTION WITH COMPETITIVE LOCAL EXCHANGE CARRIER (CLEC) ORDERS?

A. CLECs use OSS to obtain products and services from Qwest and other incumbent local exchange carriers (ILECs). OSS are used to process orders that CLECs submit for resold products and unbundled network elements. CLECs typically submit these orders in the form of local service requests (LSRs) and access service requests (ASRs)

that enter Qwest's OSS, are converted into service orders, and are processed through downstream systems. The downstream systems use the information on the service orders to perform the provisioning, billing and repair functions.

Q. WHAT IS MEANT BY OPERATIONAL SUPPORT SYSTEMS ELECTRONIC INTERFACES?

A. Electronic interfaces facilitate the exchange of information between the OSS of a CLEC and those of Qwest. An interface allows a CLEC to submit pre-order and order transactions to Qwest electronically. The interface also permits the electronic exchange of other information between CLECs and Qwest, including information about products and services, installation timelines, the characteristics of facilities, and the completion of orders.

Q. WHAT IS IMA?

A. "IMA" or "Interconnect Mediated Access" is a real-time electronic interface offered by Qwest for the exchange of information relating to pre-ordering, ordering and provisioning of resale service and unbundled network elements. Qwest built and offers a human-to-computer electronic interface, IMA-GUI (Interconnect Mediated Access – Graphical User Interface), and a computer-to-computer electronic interface, IMA-EDI (Electronic Data Interchange). Both interfaces are used for electronic pre-ordering,

[2] More thorough discussions of Qwest's OSS can be found in testimony submitted by Barbara J. Brohl and

ordering, and provisioning of resale and line-side unbundled network elements (UNEs). These interfaces allow the CLEC to submit pre-order and order transactions electronically and allow Qwest to send confirming information back to the CLEC electronically.

Q. WHAT IS AN LSR?

A. An LSR is the national standard form that CLECs use to order certain products and services from ILECs.

Q. PLEASE DESCRIBE THE TYPES OF INFORMATION THAT QWEST AND CLECS ARE LIKELY TO EXCHANGE THROUGH ELECTRONIC INTERFACES USING AN LSR.

A. In addition to the general information that CLECs must provide when they submit an LSR, CLECs must identify the element(s) ordered, provide information identifying the specific customer for whom the order is sought, and supply appropriate information, as necessary, about where the CLEC's equipment will connect with Qwest's equipment.

Q. PLEASE DESCRIBE HOW AN LSR IS PROCESSED.

A. When a CLEC submits an LSR, Qwest must process the LSR through all of the systems necessary to deliver a service to a customer. The service ordering process is the component that converts the CLEC's LSR into the service order format required to

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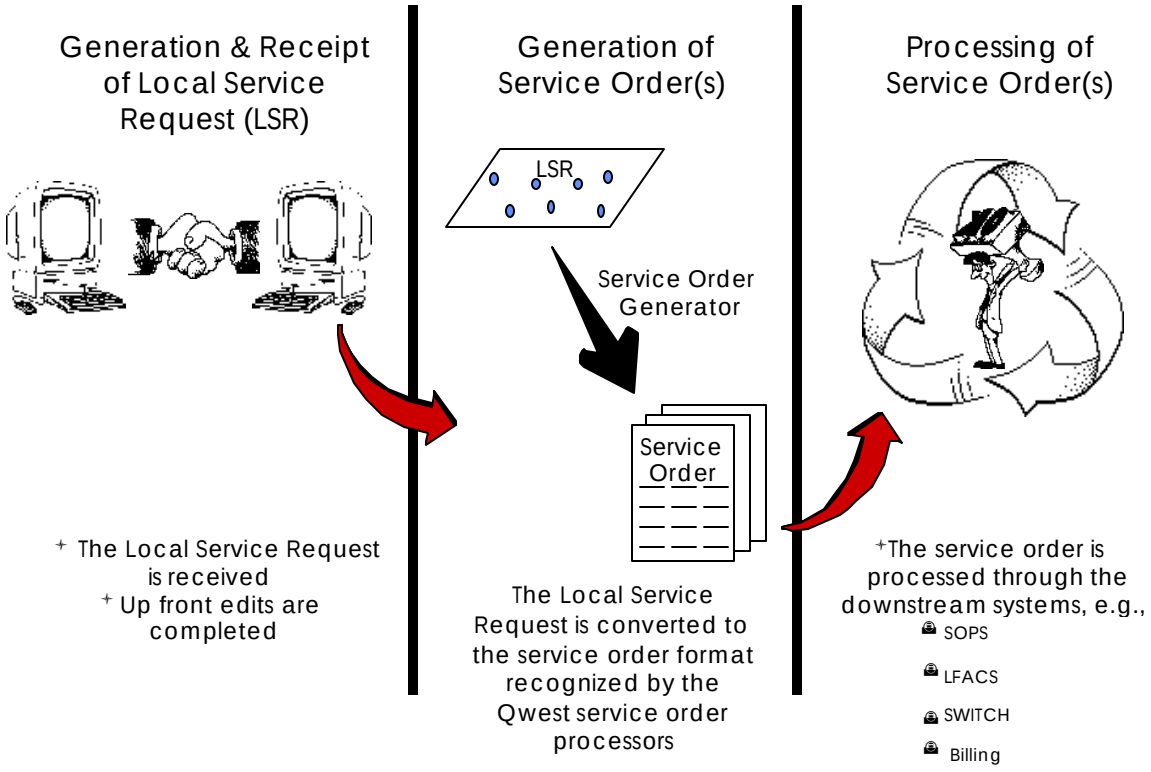
Renée Albersheim in Parts A and B of this docket.

process the request through Qwest's service order systems. The ordering process is comprised of three major functions depicted in the following picture and explained below.



1) Local Service Request Generation and Receipt. A CLEC creates an LSR, in a format defined by the OBF (Ordering and Billing Forum), and transmits it to Qwest either via an electronic interface or facsimile.

2) Service Order Generation. Qwest's OSS understand information contained on service orders. Therefore, Qwest must take the information from the LSR and create one or more service orders. A service order contains product codes

(USOCs - Universal Service Order Codes) and Field Identifiers (FIDs). FIDs are the additional information required to provide a specific product.

3) Service Order Processing. Service orders are processed by many downstream systems resulting in the provisioning of service, with the equipment inventoried, and customer accounts updated.

Q. WHAT HAPPENS AFTER A CLEC SUBMITS AND LSR?

A. After an LSR is submitted to Qwest, it is processed through the IMA gateway. The service order processors (SOPs), and other downstream installation OSS, are critical components of the process that play a role after pre-ordering/ordering and provisioning functions, and before the later activities of maintenance and repair, and billing. All service orders, whether generated by CLECs or by Qwest retail operations are processed by the SOPs. The SOPs receive Qwest service orders from several sources and, in turn, communicates with the Service Order Activation and Control System (SOAC) that manages the service order process with respect to the specialized systems that design and activate network-based services, assign facilities, maintain central office inventory, and manage customer account information. In doing so, SOAC directs each service order through all steps necessary to complete the order and provision the service.

Q. IS IMA THE ONLY ELECTRONIC INTERFACE THAT CLECS CAN USE

TO ACCESS QWEST'S OSS?

A. No. Some Qwest products are ordered using an access service request (ASR). ASRs are used to order Access and Local Network Interconnection services. ASRs can be submitted electronically using EXACT-PC (Exchange Access Control and Tracking for Personal Computers), an electronic interface created by Telcordia. Some of the products ordered using ASRs include Local Interconnect Service products, Unbundled Dedicated Interoffice Transport, and Extended Unbundled Dedicated Interoffice Transport. In addition, Qwest offers a number of other electronic interfaces for such functions as repair, billing, and to reference information. These interfaces include, among others, HEET, CEMR, RLD, ICONN, SAG/FAM, and CBA.

Q. MR. MORRISON'S TESTIMONY LAYS OUT A HISTORY OF THE EVOLUTION OF TECHNOLOGY. WHAT IS YOUR OPINION OF THIS DISCUSSION?

A. Mr. Morrison provides a nice concise summary of the development of computer systems, and their enhancements over time. In fact, the development he describes mirrors the development of the many operational support systems (OSS) at Qwest. Qwest will continue to improve its OSS processes including flow through processes like those described by Mr. Morrison.

Q. MR. MORRISON PROVIDES A LIST OF "OSS PLATFORMS."[3] IS HIS LIST ACCURATE?

A. Not exactly. The list is partial, and rather than platforms, the items listed are more precisely described as downstream applications. The applications listed by Mr. Morrison are a few of the many downstream applications that are used by Qwest and CLECs for pre-ordering, ordering, provisioning, maintenance and billing of various products.

Q. MR. MORRISON ASSERTS THAT QWEST'S OSS ARE NOT EFFICIENT USE OF TECHNOLOGY. [4] DO YOU AGREE?

A. No. Based on my experience with a variety of OSS, I believe Qwest has state of the art OSS. Qwest spends a great deal of time and money to make improvements to the applications Qwest developed internally, and obtain the latest upgrades to those applications purchased from outside vendors. Qwest makes every effort to maintain "efficient technology," by taking advantage of technological advancements whenever feasible and cost-effective.

III. FLOW THROUGH

Q. WHAT DOES FLOW THROUGH MEAN?

[3] Morrison Direct pages 11-12.
[4] *Id.* at page 13.

A. An LSR is said to flow through when the LSR has been successfully submitted by a CLEC through an electronic interface, and the LSR has successfully passed through to the relevant downstream OSS without manual intervention. This means that no human effort was required to process the LSR through to Qwest's service order processors.

Q. IF NO MANUAL INTERVENTION IS REQUIRED TO PROCESS AN LSR, DOES IT NECESSARILY FOLLOW THAT NO MANUAL STEPS WILL OCCUR IN THE PROVISIONING OF THE PRODUCT OR SERVICE ORDERED VIA THAT LSR?

A. Not necessarily. Some products can be ordered and provisioned entirely electronically. But there are some products that will always require some manual steps in the provisioning process. When Qwest uses the term flow through in reference to LSRs flowing through IMA, flow through is more accurately described as electronic order flow through. The steps involved in provisioning a product or service would more accurately be described as provisioning flow through. Manual steps that may be required in the provisioning process are not related to manual steps that are associated with electronic order "fall out." Given that distinction, any discussion of electronic flow through rates only applies to whether or not manual intervention by the Interconnect Service Center is required to allow a service order submitted through IMA to continue through the electronic process, and on to the service order processors. Therefore, the only steps in Ms. Million's non-recurring cost studies as discussed by Mr. Morrison,

where electronic flow through is appropriately discussed are those involving the Interconnect Service Center. Any subsequent steps in the cost studies relate to provisioning flow through and are not related to the electronic ordering process.

Q. WHEN MR. MORRISON DISCUSSES FALLOUT, DOES HE DO SO IN THE PROPER CONTEXT?

A. No. Mr. Morrison claims that fallout, or more appropriately, flow through, should be viewed "in the context of the total provisioning processes."[5] Mr. Morrison fails to recognize the very important and relevant distinction in processes that is essential to a discussion of flow through, especially in the context of an ILEC's obligation to provide CLECs access to it's OSS. Using IMA as an example, once a CLEC's LSR passes through IMA and some intermediate software, the CLEC's order enters Qwest's service order processors. Once the CLEC order is in Qwest's service order processors, CLEC orders and Qwest orders are processed by the same downstream applications. As I stated before, discussions of flow through are only relevant to the flow of CLEC orders through interfaces such as IMA.

Q. MR. MORRISON CLAIMS THAT ELIZABETH HAM OF SOUTHWESTERN BELL HAS TESTIFIED IN SUPPORT OF HIS VIEW OF

[5] *Id*. at page 18.

FLOWTHROUGH LEVELS.[6] IS THIS CORRECT?

A. No. In fact I could not find the statements Mr. Morrison attributes to Ms. Ham in the transcript of the OSS Forum before the FCC on May 29th, 1997, as identified by Mr. Morrison's testimony. Ms. Ham did make the following statement,

> We do not believe that any kind of particular level of flowthrough is required to meet the requirement for nondiscriminatory access. The test is really whether, as has been mentioned, the CLEC can order the service that is provisioned at parity with the ILEC. Our consumer EASE product permits a 99 percent flowthrough of all service orders that are entered by our residential or consumer retail operations. We would expect the same flowthrough from a trained CLEC service rep.[7]

Q. DOES MS. HAM AGREE WITH MR. MORRISON'S DEFINITION OF FLOW THROUGH?

A. No. Note that Ms. Ham was speaking at the Forum of only one of the four interfaces that Southwestern Bell provides for CLECs to access its OSS. The EASE application can only be used for resale residential orders and simple business orders. A review of Ms. Ham's affidavit in support of SBC's application to provide long distance in Texas[8] shows varying flow through rates that are in line with the forward looking flow through rates Qwest used in its nonrecurring cost studies. Ms. Ham's affidavit also states the

[6] *Id.* at page 17.
[7] *In Re Common Carrier Bureau Operations Support Systems Forum,* May 29th, 1997. Ms. Ham and Southwester Bell did not participate in the forum on the first day, May 28th, 1997.

appropriate definition of flow through,

> The FCC defines flow through as "the percentage of orders that an incumbent LEC processes electronically through its gateway and accepts into its back office systems without manual intervention (i.e., without additional human intervention once the order is submitted into the system)." Flow through "applies solely to the OSS ordering function, not the OSS provisioning function. In other words, Order Flow Through measures only how the competing carrier's order is transmitted to the incumbent's back office ordering system, not how the incumbent ultimately completes that order."[9]

Indeed, in its decisions granting ILECs authorization to sell long distance, the FCC has adopted the definition of order flow through as: CLECs orders that "are transmitted electronically through the gateway and accepted into [the ILEC's] back office ordering systems without manual intervention."[10]

Q. HOW IS THIS DISCUSSION OF FLOW THROUGH RELEVANT TO QWEST'S NON-RECURRING COST STUDIES?

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[8] See *In the Matter of Application of SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region InterLATA Services in Texas,* CC Docket No. 00-65, Affidavit of Elizabeth A. Ham.

[9] *Id. at* ¶125.

[10] See *In the Matter of Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York,* CC Docket No. 99-295, December 21, 1999, at ¶160 (FCC 99-404). See also *In the Matter of Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services In Texas,* CC Docket No. 00-65, June 30, 2000, at ¶179 (FCC 00-238)*; In the Matter of Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma,* CC Docket No. 00-217, January 19, 2001, at ¶ 144 (FCC 01-29).

A. Mr. Morrison claims that the non-recurring cost studies contain too many manual operations that are not reflective of an appropriate level of flow through. First, it is only relevant to speak of flow through with regard to activities related to transmission of orders via Qwest's interfaces to Qwest's downstream systems. In the cost studies presented by Teresa K. Million, the activities associated with the Service Delivery Coordinator are the relevant manual activities that would be performed for orders that do not flow through. As will be discussed more thoroughly by Ms. Million, Mr. Morrison appears not to have recognized that a flow through factor was applied to relevant products in the non-recurring cost studies, reflecting a significant reduction in manual activities.

Q. MR. MORRISON CLAIMS THAT TO BE TRULY FORWARD LOOKING, AN OSS SHOULD HAVE NEGLIGIBLE FALLOUT. IS THIS REALISTIC?

A. No. Mr. Morrison's "ideal electronic processing environment"[11] is evocative of a fantasy network. The 8th Circuit determined that to be forward looking, a network can be based on existing technology.[12] As a component of this network, a forward looking OSS should also be based on existing technology. Forward looking flow through is that which can be realistically achieved. It is not realistic to assume that a 2% fallout rate can be achieved as suggested by Mr. Morrison. In my opinion and based on my

[11] *Morrison Direct* at page 18.
[12] *Iowa Utilities Board v. FCC*, Case no. 96-3321, 8th Circuit Court of Appeals, decided July 17, 2000.

experience in systems development, it is cost prohibitive to require a company to make all possible enhancements to its OSS. The cost of

each enhancement must be weighed against the return the enhancement will provide. As each system enhancement is added to a system, fewer and fewer transactions in that system will be impacted. The return on the investment in an enhancement may not be worth the cost of that enhancement. For example, when Qwest is evaluating a change in an ordering system, Qwest must compare the number of orders and/or clients that change will benefit against the cost of the proposed change.

Q. MR. MORRISON CITES OTHER STATE REGULATORY BODIES THAT SUPPORT HIS VIEW OF FALLOUT. DO ALL STATES AGREE?

A. No. Other states have set flow through rates more in line with realistic expectations of the RBOCs. Within Qwest's region, the Colorado Public Utilities Commission found:

> The Joint Intervenors' proposal to include 100% electronic flow-through is unrealistic. Although 100% flow through would occur in an ideal forward-looking network, TELRIC does not require an assumption that even a "forward-looking" network will be an ideal forward-looking network. Therefore, a level of electronic order flow-through of less than 100% is appropriate. Qwest's proposed figure represents a flow through percentage higher than is currently achieved. Qwest's figure also strikes us as a plausible forward-looking assumption. We adopt Qwest's

figure on flow-through rates.[13]

Please see the rebuttal testimony of Teresa K. Million for a more thorough discussion of how Qwest's flow through rates are applied to the non-recurring cost studies.

Q. WHAT IS YOUR UNDERSTANDING OF THE EXHIBIT, SLM-1, THAT ACCOMPANIED MR. MORRISON'S TESTIMONY?

A. As I understand it, Mr. Morrison's exhibit is constructed from the work papers that were submitted with Ms. Million's non-recurring cost studies. He has extracted the work steps involved in the electronic ordering and provisioning of a variety of products. His purpose is to point out work steps that he believes represent too much manual processing, based on his inaccurate definition of flow through.[14]

Q, DID MR. MORRISON USE APPROPRIATE PRODUCT ORDERING EXAMPLES IN HIS EXHIBIT SLM-1?

A. No. Many of the product examples provided by Mr. Morrison in his exhibit begin with activities subsequent to the CLEC ordering process. The transmittal of the CLEC LSR to the interface with Qwest's downstream systems is identified in the work papers filed by Ms. Million with the non-recurring cost studies as occurring in the Interconnect Service Center. Only work at this step of the product ordering and provisioning

[13] See *In the Matter of U S WEST Communications, Inc.'s Statement of Generally Available Terms and Conditions,* Decision No. C01-1302; Docket No. 99A-577T Colorado Public Utilities Commission, 2001 Colo. PUC LEXIS 1140, November 13, 2001 at 63.
[14] See *Morrison Direct at page 24* for a list of the products he uses for his illustrations.

process is relevant to a discussion of flow through. All subsequent steps involve activities and downstream systems that are common to the CLECs and to Qwest. Again, since a discussion of flow through is only relevant until a CLEC order reaches the ILEC's back office systems, it is not appropriate for Mr. Morrison to recommend modifications to processes that are shared. It is also not appropriate or realistic to expect Qwest to provide systems to CLECs that are better than those that Qwest uses.

Q. IS THERE A REASON THAT THE INTERCONNECT SERVICE CENTER WORK STEP DOES NOT APPEAR IN SOME OF THE EXAMPLES MR. MORRISON USED FOR HIS FLOW THROUGH ANALYSIS?

A. Yes. The Interconnect Service Center work step does not appear in Mr. Morrison's examples for the UDIT and Switched Transport products, because these products are ordered with Access Service Requests (ASRs) rather than LSRs. ASRs are submitted via the EXACT system, not via IMA. Still, Ms. Million's cost studies do assign high probabilities for electronic processing, and thus a low occurrence of manual activities by the Service Delivery Coordinator.

Q. DOES MR. MORRISON'S EXHIBIT INCLUDE ANY EXAMPLES THAT DO INVOLVE THE INTERCONNECT SERVICE CENTER WORK ACTIVITY?

A. Yes. Mr. Morrison's exhibit does include one product type that involves Interconnect Service Center work activity -- UNE-P POTS. What Mr. Morrison apparently did not

notice in his analysis was that Ms. Million's cost studies already applied forward looking flow through for this product, setting it at a forward looking rate of 95% (or 5% fallout).

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.