BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

IN THE MATTER OF THE CONTINUED COSTING AND PRICING OF UNBUNDLED NETWORKING ELEMENTS, TRANSPORT, TERMINATION AND RESALE	**)** **)** **)** **)**	**DOCKET NO. UT-003013 PART B**

JOINT INTERVENORS' RESPONSE TO BENCH REQUEST NO. 42 (for All Parties)

Advanced TelCom Group, Inc., AT&T Communications of the Pacific Northwest, Inc., Electric Lightwave, Inc., Focal Communications of Washington, McLeodUSA Telecommunications Services, Inc, XO Washington, Inc., f/k/a NEXTLINK Washington, Inc., and WorldCom, Inc. ("Joint Intervenors") hereby submit their response to Bench Request No. 42 (for all parties).

CONTINUED COSTING AND PRICING
WUTC Docket No. UT-003013

Joint Intervenors' Response
to Bench Request

Advanced TelCom Group, Inc., AT&T Communications of the Pacific Northwest, Inc., Electric Lightwave, Inc., Focal Communications Corporation of Washington, McLeodUSA Telecommunications Services, Inc., XO Washington, Inc., and WorldCom, Inc. ("Joint Intervenors")
Docket No. UT-003013 Part B
Response to Bench Request No. 42
Dated April 6, 2001

BENCH REQUEST NO. 42 (for all parties):

See Notice of Issuance of Commission Bench Requests (April 12, 2001).

RESPONSE:

The Joint Intervenors have several concerns with the proposal contained in Bench Request No. 42. Procedurally, bench requests historically have been reserved for questions the Commission has with respect to proposals or testimony submitted by the parties. Bench Request No. 42, however, itself represents a proposal that no party has made and which otherwise is not part of the record in this proceeding. The Joint Intervenors do not believe that the Commission, consistent with due process and principles of administrative law, can or should establish a methodology for calculating switching costs that is first proposed through a bench request submitted in the middle of hearings and to which parties have only one week to respond. If the Commission adopts the rate structure for switching that Commission staff has proposed, the proper procedure would be to establish additional proceedings in which parties are required to propose the methodology for determining rates in compliance with the Commission's decision, supported by testimony and additional hearings.

If the Commission nevertheless were to attempt to develop call setup and call duration costs based on the information contained in the record in Docket Nos. UT-960369, *et al*., the proposed methodology in Bench Request No. 42 does not produce results that conform to the record in that proceeding or the Commission's decision in the Eighth Supplemental Order. The Commission concluded in paragraph 529 of that order that "the per minute cost of the switch is $0.00115 for U S WEST and $0.00136 for GTE." The proposed methodology in Bench Request No. 42, if reconciled to the Commission's single MOU rate design in the prior proceeding, would

yield a single MOU rate of $0.000884 (the duration MOU rate of $0.000572 plus 1/5 of the call setup rate of $0.001562, which assumes an average call duration of 5 minutes) – significantly less than the switching costs the Commission established in the Eighth Supplemental Order. The proposed methodology thus departs from the prior record and Commission decisions and cannot be justified as mere manipulation of existing record evidence.

If the Commission were to evaluate the proposed methodology as a new proposal in this docket, the Joint Intervenors have not had sufficient opportunity to fully review and evaluate that proposal. Based on the review conducted to date, however, there is no technically supportable basis for the switch usage cost calculations proposed in Bench Request No. 42. The proposal bases its calculations on the faulty presumption that the "getting started investment of a switch [as specified in the Eighth Supplemental Order] . . . is only used to set up and take down calls." This is incorrect.

The proposed calculations reflect a fundamental misunderstanding of the functional components of a modern switching system. Such a machine comprises three functional divisions: the processor complex, the switch matrix or fabric, and the periphery. The processor complex is responsible for call processing, maintenance, feature processing, signaling message processing, and other similar operations. The switch matrix provides the connections between lines and trunks, and the periphery consists of port (primarily line and trunk) interfaces to the switching machine. Generally, the processor complex is most heavily involved in a call during the call setup process and, to a lesser extent, when the call is taken down. While the call is stable, that is, while the parties are conversing, the processor is essentially uninvolved. The switch matrix provides a path between the originating and terminating ports for the duration of the call. The call setup process includes assigning the switch matrix connection between the originating and terminating ports, and the call takedown procedures include removing this connection. Any investment that is to be assigned to the call setup and takedown is thus associated with the processor complex and not the switch matrix or periphery. Even at that, the entire processor investment should not be assigned to call setup and takedown because the processor is also involved in activities not directly related to call establishment.

The fixed investment in the Commission's linear switch investment function represents processor and switch matrix investment as well as investment in power, equipment bays, maintenance and administration terminals, and possibly other components, depending on the specific system architecture. As noted above, only the processor complex is involved directly in call setup. The fraction of the fixed investment that represents the processor depends strongly on the switch architecture. The switch investment function is necessarily designed to estimate switching investment in a very general way, as it must represent a range of switches of various size, capacity, manufacture, and vintage. It is thus plainly impossible to estimate with any degree of accuracy what the investment in the call processing components of the switch should be based on the proposal's cost function.

Determining call setup costs with any degree of accuracy is obviously very difficult and cannot be done using the methodology proposed in Bench Request No. 42. Particularly in light of the Commission's prior rejection of existing switching cost models in the Eighth Supplemental Order, the only way of reliably estimating call setup costs, if the Commission

decides to analyze switching costs at this level of detail, is to develop a very detailed engineering switching cost model. Such a model would require a massive development effort as well as the production of a very large number of detailed investment and cost inputs for a range of specific switch architectures and switch sizes. The cost and investment inputs as well as the model's internal calculations and algorithms would have to be very well-documented and open to unrestricted public scrutiny, and switch vendors are notoriously reluctant to provide any such details, particularly investments, for use in open proceedings. The model development effort in itself would require many months of concentrated effort in design, testing, and documentation.

The proposal in Bench Request No. 42, therefore, does not provide a proper basis on which the Commission can establish switching costs under a dual rate structure, either procedurally or substantively. Accordingly, the Joint Intervenors recommend that the Commission establish additional proceedings in this docket to determine appropriate switching costs and rates if the Commission adopts staff's proposal for a call setup and call duration rate structure.

Date: April 13, 2001
Preparer: Legal Counsel; Richard Chandler