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

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OFFICE OF THE SECRETARY

In the Matter of)

Federal-State Joint Board on)
Universal Service)

Forward-Looking Mechanism)
for High Cost Support for)
Non-Rural LECs)

CC Docket No. 96-45

CC Docket No. 97-160

AT&T'S PETITION FOR RECONSIDERATION

(PUBLIC VERSION)

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AT&T'S PETITION FOR RECONSIDERATION

Pursuant to section 1.106 of the Commission's rules, 47 C.F.R. § 1.106, AT&T Corp. ("AT&T") respectfully submits this petition for reconsideration of the Commission's *Tenth Report and Order*.¹

INTRODUCTION AND SUMMARY

AT&T supports the Commission's continuing efforts to implement a forward-looking universal service cost model that is compatible with the pro-competitive goals of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 ("1996 Act"). Implementation of the vast majority of input value conclusions reached in the *Tenth Report and Order* will advance that objective. In a few significant instances, however, the Commission has endorsed input values that, because of faulty data or development procedures, will frustrate, rather than further, the Commission's stated goal of accurately estimating forward-looking universal service costs. In each such case, the Commission has adopted values that violate the basic principles of efficient, least-cost

¹ Tenth Report and Order, *Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45, 97-160 (Nov. 2, 1999) ("*Tenth Report and Order*").

network design that are a necessary precondition for determining the total element long run incremental cost (“TELRIC”) of universal service. The Commission should reconsider its conclusions with respect to these issues.

I. In light of the Commission’s recognition that geocode data is the most accurate data available for locating customers within wire centers, the Commission should have selected the only actual geocode data submitted in this proceeding – the PNR geocode data – for use in determining customer locations. The parties to this proceeding received as much access to the PNR geocode data as they received to much of the data submitted in this proceeding, and the Commission’s disqualification of the PNR data on grounds of “openness” is wholly inconsistent with the Commission’s decision to rely on incumbent LEC-submitted proprietary data for other items. If the Commission nonetheless stands by its decision to rely exclusively on its admittedly less accurate road surrogate algorithm, the Commission should, at a minimum, adjust that algorithm to minimize the significant distance inflation produced by application of the algorithm in its current form. The record is replete with evidence that the road surrogate methodology assumption of uniform customer dispersion along roads produces such distance inflation.

II. The Commission adopted values for the cost of small underground copper cable that are more than *double* the values previously proposed by the Commission. The *Tenth Report and Order* offers no explanation or record citation for the nearly \$3.00/foot increase in small underground cable costs, and AT&T has been unable to identify any change in the Commission’s methodology that would account for such a significant cost inflation that affects only small underground cables. The Commission should rescind this unexplained increase and adopt the Commission’s previously proposed values.

III. The Commission's default values for distribution plant mix call for too much underground cable and too little aerial cable. The *only* record evidence of underground distribution plant mix submitted in this proceeding was submitted by BellSouth – and that record evidence clearly shows that that the *maximum* percentage of underground distribution plant in any of BellSouth's 9 states was 2 percent, a figure that is dramatically less than the percentages adopted in the *Tenth Report and Order*.

IV. The structure cost values adopted in the *Tenth Report and Order* improperly reflect manhole costs for underground distribution plant. Although the *Tenth Report and Order* states that manhole costs are necessary to allow for splicing when the length of the distribution cable exceeds minimum distance criteria adopted by the model, there is no record support for the Commission's finding that it is reasonable for underground distribution runs to exceed this distance. Further, even if it were appropriate to build in an ability to splice underground distribution cable in *some* circumstances, an efficient provider would not install an expensive, full-size manhole merely to accommodate a single, small, copper splice, as would be needed for distribution cable. Accordingly, the Commission should, at a minimum, reduce the input value for underground distribution cable structure cost to reflect the cost that an efficient provider would incur in developing forward-looking distribution structures.

V. The Commission's findings regarding Digital Line Carrier ("DLC") costs cannot withstand scrutiny. First, the adoption of the DLC input values based on an average of the proposals submitted by the incumbent LECs contradicts the record evidence, including the incumbent LECs' own contract data, that both exposes the unreliability of the incumbent LEC proposals and supports the alternative and much more reliable DLC cost approach proposed by AT&T and MCI WorldCom. The Commission's primary reason for rejecting of the alternative

DLC cost approach proposed by AT&T and MCI WorldCom is based on Bell Atlantic's false representation that those studies omit the costs for line equipment. Second, the 70 percent sizing factor for both the common equipment capacity of a DLC remote terminal and the number of line cards installed that terminal is inconsistent with the other forward-looking fill factors adopted by the Commission. There is no reason why DLC remote terminals should be more overbuilt than copper feeder systems, and the Commission should size DLC remote terminals using a factor that is no less than a copper feeder fill factor for the relevant density zones. Likewise, line cards are easily added to DLC remote terminals at the frequent intervals at which technicians visit those terminals for inspection and maintenance, and the Commission should use the same fill factor that it adopted for switch line card fill to reflect the same efficient deployment practices. Third, the *Tenth Report and Order* improperly ignores the switch savings associated with the use of integrated DLCs. The record clearly indicates that lines served by integrated DLCs are much less costly to terminate at the switch than lines served by non-integrated DLCs systems, and that the incumbent LECs are significantly increasing deployment of integrated DLCs relative to non-integrated DLCs. Thus, the *Tenth Report and Order's* adoption of switch costs based on the historical deployment of integrated DLCs relative to non-integrated DLCs is inconsistent with forward-looking principles and ignores significant switch cost savings.

VI. The *Tenth Report and Order's* use of LERG data to determine host-remote relationships directly contradicts the Commission's stated goal to model costs using efficient forward-looking principles because the LERG database reflects the incumbent LECs' historic determinations to deploy host/standalone versus remote switches. This problem is compounded by the placement of remotes on their own SONET rings, an assumption that is unsupported by the record.

VII. The current signaling inputs are based on data from 1994 and do not include the cost savings demonstrated in BellSouth's most recent data.

VIII. The customer service value used by the Commission was, without explanation, citation, or opportunity to comment, modified from a range of \$1.29 to \$1.44 to \$3.41. This unexplained change is arbitrary.

ARGUMENT

I. DETERMINING CUSTOMER LOCATIONS

"The determination of customer locations relative to the wire center *heavily influences* a forward-looking cost model's design of outside plant facilities." *Tenth Report and Order*, ¶ 33 (emphasis added). Of course, "a cost model is most likely to select the least-cost, most efficient outside plant design if it uses the most accurate data [available] for locating customers within wire centers." *Id.*, ¶ 37. And, as the *Tenth Report and Order* recognizes, "the most accurate data for locating customers within wire centers are precise latitude and longitude coordinates for those customers' locations" – *i.e.*, actual geocode data. *Id.*

For these reasons, the Commission should have selected the only actual geocode data submitted in this proceeding – the PNR geocode data – for use in determining customer locations. In refusing to do so, the Commission accepted throw-away assertions of incumbent local exchange carriers ("LECs") that "interested parties have not had an adequate opportunity to review and comment on the accuracy of the PNR actual geocode data set." *Id.*, ¶ 39. Those assertions cannot withstand scrutiny.

The parties to this proceeding have received as much access to the PNR geocode data as they received to most data submitted in this proceeding. As the *Tenth Report and Order* explicitly recognizes, the PNR data was fully available to any party that sought to review it. *Id.*, ¶ 38 ("PNR . . . has continued to provide access to the underlying geocode data at its facility in

Pennsylvania”); *id.*, ¶ 39 (PNR’s “geocode points are available . . . on-site at PNR’s facilities”). PNR provided access not only to the raw geocode data, but also to its clustering routines and “BIN” files. *Id.*, ¶¶ 38-39. And PNR made its staff available to answer questions and to explain, on a firsthand basis, the linkage between input data and modeled customer location outputs.² In short, PNR has gone to great lengths to assure that its geocode data complies with the *Universal Service Order* criterion that the “data . . . associated with the model . . . be available to all interested parties for review and comment.”³

The *Tenth Report and Order* (¶ 39) claims that PNR’s reasonable efforts to protect its investments by requiring on-site supervised review “mak[es] it difficult for parties to verify the accuracy” of the PNR data. But the record confirms that any such difficulties are insignificant – the incumbent LEC opponents of utilizing accurate geocode customer location data did, in fact, extensively review the PNR data, both in the context of this proceeding and in numerous state proceedings.⁴ And, unlike much of data upon which the Commission has relied in this proceeding, PNR’s geocode data, once reviewed, is easily verifiable – an interested party merely need determine whether a customer resides at the location indicated by the data. Indeed, the Commission’s disqualification of the PNR data on grounds of “openness” is wholly inconsistent

² See, e.g., PNR response to Thomas Mitchell of GTE (Apr. 29, 1999 (filed with the Commission on Apr. 4, 1999)).

³ Report and Order, *Federal-State Joint Board on Universal Service*, 12 FCC Rcd. 8776, ¶ 250 (1997) (“*Universal Service Order*”).

⁴ Not only have these parties actively reviewed the PNR data, GTE, for one, expressly advocated its use in another Commission proceeding. See, e.g., GTE Comments at 32 & App. D, pp. 5, 8, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98 (May 26, 1999). It also is telling that subsequent to their inspections, the complaining incumbent LECs advanced no evidence that the PNR geocode data are inaccurate. Rather, these incumbent LECs abandoned such a direct attack in favor of this procedural complaint concerning “openness.”

with its decision to rely on incumbent LEC-submitted proprietary data for other items such as DLC costs – data that were no more “open” than the PNR geocode data.

In all events, the parties had much *greater* access to the PNR geocode data than to the Census Bureau data that underlie the road surrogate algorithm which the Commission adopted in lieu of actual geocode data. The raw Census Bureau data are not available for review and verification at all. The Commission’s decision to apply one standard to the PNR geocode data and another to the Census Bureau data that underlie the road surrogate algorithm is the essence of arbitrary action.

If the Commission nonetheless stands by its decision to rely exclusively on its admittedly less accurate road surrogate algorithm, it should, at a minimum, adjust that algorithm to minimize the significant distance inflation produced by application of the algorithm in its current form. As AT&T has previously demonstrated, the road surrogate algorithm fails to account properly for a basic fact, confirmed by common experience, that customers tend to cluster together along roadways.⁵ Instead, the road surrogate algorithm assumes that customers are dispersed *uniformly* along those roadways – a polar assumption that necessarily maximizes calculated distribution plant distances. As a result, exclusive reliance on the unadjusted road surrogate algorithm will overestimate outside plant costs, a result that is entirely inconsistent with the Commission’s stated goal to “select the least-cost, most-efficient outside plant design.” *Tenth Report and Order*, ¶ 37.

In the *Tenth Report and Order* (¶ 46), the Commission refused to make any adjustment to reflect such clustering because the record purportedly contained “no reliable evidence” that the

⁵ See, e.g. AT&T/MCI WorldCom July 23, 1999 Comments at 3; AT&T/MCI WorldCom August 6, 1999 Reply Comments at 10.

road surrogate methodology assumption of uniform dispersion along roads produces distance inflation. In fact, the record is replete with such evidence. Ameritech, for example, submitted satellite photographs of portions of its service areas that confirm much greater clustering of customer locations than is indicated by the Commission's surrogate road locations. See Letter from Celia Nogales, Ameritech, to Secretary, FCC, July 14, 1999, CC Docket No. 96-45, 97-160. The PNR geocode data of actual customer locations likewise confirm that customers are not uniformly dispersed along roads, and that assuming uniform dispersion necessarily overstates distance and hence outside plant costs.⁶

The Commission's view that no single piece of this extensive record evidence was sufficiently available or verifiable to warrant its use as the *primary* source for estimating customer locations, see *Tenth Report and Order*, ¶ 46, cannot justify ignoring the fact, confirmed by both common experience and the record evidence, that customers are not uniformly dispersed along roads. Accordingly, in the event the Commission declines to use PNR geocode data as the primary source for customer location estimation, it should, at a minimum, apply a downward adjustment to the road surrogate algorithm, as proposed in AT&T's May 20, 1999 *ex parte* submission, to produce more accurate outside plant cost estimates.

II. COPPER CABLE COSTS

In the *Inputs Further Notice*,⁷ the Commission proposed cost estimates for 24- and 26-gauge aerial, underground, and buried copper cable of various pair sizes based on a National

⁶ See, e.g., AT&T Aug. 28, 1998 Comments at 3-4; AT&T May 20, 1999 *ex parte* (showing, *inter alia*, that U S West's Oregon study area monthly loop costs increased 13 percent by substituting road surrogate data).

⁷ Further Notice of Proposed Rulemaking, *Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45, 97-160, 1999 WL 343066 (rel. May 28, 1999) ("*Inputs Further Notice*").

Regulatory Research Institute (“NRRI”) study of actual cable installation cost data collected by the Rural Utilities Service (“RUS”). See *Inputs Further Notice*, ¶¶ 52, 72. For 24- and 26-gauge underground cables of less than 50 pairs, the Commission proposed costs ranging from \$1.93 to \$2.46 per foot. *Id.*, App. A at 2.

The *Tenth Report and Order* purports to affirm the Commission’s tentative decision in the *Inputs Further Notice* to adopt the NRRI Study values. However, the values actually adopted by the Commission for the cost of small underground copper cables are more than *double* the proposed values. See *Tenth Report and Order*, App. A at A-2 to A-3. The *Tenth Report and Order* offers no explanation or record citation for the nearly \$3.00/foot increase in small underground cable costs, and AT&T has been unable to identify any change in the Commission’s methodology that would account for such a significant cost inflation that affects only small underground cables.⁸ The absence of any explanation for this apparently arbitrary change precludes parties from determining whether the change was intentional or the result of error, and, if intentional, from having any meaningful opportunity to provide comment on the data and logic underlying the new values. Accordingly, the Commission should rescind the unexplained increase and adopt its previously proposed values.

III. DISTRIBUTION PLANT MIX

AT&T and MCI WorldCom have previously demonstrated that the Commission’s default values for distribution plant mix call for too much underground cable and too little aerial cable.⁹

⁸ Because these small cables are disproportionately employed in rural areas eligible for universal service support, the significance of any overstatement in their cost on calculated USF size is severe.

⁹ See AT&T/MCI WorldCom July 23, 1999 Comments at 24-27; AT&T/MCI WorldCom August 6, 1999 Reply Comments at 23-24.

The *only* record evidence of underground distribution plant mix submitted in this proceeding was submitted by BellSouth – and that record evidence clearly shows that that the *maximum* percentage of underground distribution plant in any of BellSouth’s 9 states was a mere 2 percent, a figure that is dramatically less than the percentages adopted in the *Tenth Report and Order*.¹⁰

The *Tenth Report and Order* declares that “it is not necessary to address this issue” because the Commission “[is] not adopting a company-specific algorithm.” *Tenth Report and Order*, ¶ 238. That is a *non sequitur*. If the input values – national *or* company-specific – adopted by the Commission are to be based on record evidence – as they must be – they must be based on the BellSouth data. There simply is no other data in the record (or logic in the *Tenth Report and Order*) to support the view that “national” values for underground distribution plant mix should be higher. BellSouth is an extremely large telephone company that serves over 24 million switched access lines. Its average percentages should be at least as instructive for national averages as, for example, the RUS samples used by the Commission for cable and outside plant placement costs.

IV. UNDERGROUND STRUCTURE COSTS

The structure cost values adopted in the *Tenth Report and Order* improperly reflect manhole costs for underground distribution plant.¹¹ Where underground distribution plant exists at all, it typically runs only a short distance (*e.g.*, from the FDI to a block terminal, or under a street when connecting two poles or two buried cable runs) and thus requires no manholes or

¹⁰ For example, the underground distribution percentage calculated by the synthesis model for BellSouth is 11 percent – *i.e.*, 5 times the maximum value filed by BellSouth in response to the Commission’s data request.

¹¹ See, *e.g.*, AT&T/MCI WorldCom July 23, 1999 Comments at 24.

pullboxes.¹² The *Tenth Report and Order* nonetheless rejects the AT&T/MCI WorldCom proposal to remove these inappropriate manhole costs on the ground that “manhole costs are necessary to allow for splicing when the length of the distribution cable exceeds minimum distance criteria adopted by the model.” *Tenth Report and Order*, ¶ 223. The Commission provides no record support for its finding that it is reasonable for underground distribution runs to generally exceed this distance, and there is none. Further, even if building in an ability to splice was appropriate in *some* underground distribution cable circumstances, an efficient provider would not install an expensive full-size manhole merely to accommodate a single, small, copper splice, as would be needed for distribution cable. See AT&T/MCI WorldCom July 23, 1999 Comments at 24. Accordingly, the Commission should, at a minimum, reduce the underground distribution cable structure cost input value to reflect manhole costs of no more than \$435, an amount adequate to purchase and install PenCell PEM-2436 Buried Cable Enclosure. *Id.* (quoting material cost and installations prices).

V. DIGITAL LINE CARRIER COSTS

A. Equipment Costs

The *Tenth Report and Order* (¶ 274) adopts DLC input values based on “an average of the contract data” proposals of the incumbent LECs. The Commission describes the incumbent LEC proposals as based on “the most reliable data on the record” and claims that “no additional information has been proffered nor has any alternative method been proposed, on which to base our estimate of DLC costs.” *Id.* To the contrary, the record evidence, including the contract data submitted by the incumbent LECs, both exposes the unreliability of the incumbent LEC

¹² See *id.*; HAI Inputs Portfolio (Jan. 27, 1998) at 31.

proposals and supports the alternative and much more reliable DLC cost approach proposed by AT&T and MCI WorldCom.¹³

After an extensive examination of the incumbent LEC contract records – supplied to the Commission under protective seal in this proceeding – AT&T and MCI WorldCom informed the Commission that they were unable to find a *single* instance in which the incumbent LEC contract data actually supported the proposed values that the Commission has now adopted.¹⁴ Rather, the incumbent LECs’ actual prices, to the extent they have revealed them, support DLC costs that are *far below* those proposed by the incumbent LECs and adopted the Commission, and are *fully consistent* with the alternative figures proposed by the HAI sponsors.¹⁵

In spite of this uncontroverted evidence, the *Tenth Report and Order* (§ 278) categorically rejects the HAI proposals crediting Bell Atlantic’s unsupported claim on reply that the AT&T and MCI WorldCom analyses improperly “omit the costs for line equipment.” But Bell Atlantic’s claim is plainly false. Even a cursory review confirms that the analyses in question (attached hereto as proprietary appendix A) explicitly include line equipment costs as a separate line item. *See* AT&T/MCI WorldCom July 23, 1999 Comments, Exh. B (labeled “Line POTS Card”). Indeed, the line equipment estimates reflected in the AT&T and MCI WorldCom DLC proposals are quite similar to the line equipment estimates reflected in the incumbent LEC

¹³ *See, e.g.* AT&T/MCI WorldCom July 23, 1999 Comments Exh. B; AT&T/MCI WorldCom August 6, 1999 Reply Comments at 27-28.

¹⁴ *See* AT&T/MCI WorldCom July 23, 1999 Comments at 32-35 & Exh. B.

¹⁵ *See id.* For example, [***BEGIN PROPRIETARY***]

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DLC proposals adopted by the Commission. For that reason, the *example* comparisons supplied by AT&T and MCI WorldCom properly focused on the incumbent LEC *common equipment* cost data – data that support the HAI proposals and *not* the much higher incumbent LEC proposals the Commission adopted. See AT&T/MCI WorldCom July 23, 1999 Comments at 33 (explicitly noting that it is only comparing the “common equipment costs”). Thus, contrary to Bell Atlantic’s claim, AT&T and MCI WorldCom compared apples to apples – adding the line card costs to the example comparisons would not change the results because those costs would be added to both the HAI common equipment values and to the incumbent LEC common equipment values. In short, there is no basis for ignoring the fact that the data upon which the Commission purports to rely does not support the DLC input values it has adopted.

B. DLC “Fill Factors”

Although not explicitly mentioned in the *Tenth Report and Order*, the conforming electronic version of the model on the FCC Web Site (dated October 25, 1999) employs a 70% sizing factor for both the common equipment capacity of a DLC remote terminal as well as the number of line cards installed on that remote terminal. Thus, if a DLC remote terminal needs to serve 520 working lines, the common equipment and line cards would be sized to serve 743 (=520/.70) lines. Because of modularity in remote terminal sizes, this would require the selection of a DLC remote terminal cabinet with 1344 lines of capacity. In contrast, if these lines were served by copper feeder, it is likely that an 82.5% sizing factor would be used, resulting in a lines capacity requirement of 630, and thus requiring the selection of a 672 line cabinet. Because there is no reason why DLC systems should be more overbuilt than copper feeder

systems, the Commission should size DLC remote terminals using a factor that is no less than the copper feeder fill factor for the relevant density zones.¹⁶

Estimating line card costs based on a 70 percent fill is even less supportable as it assumes away one of the principal benefits of the DLC technology – the ability to delay the costs associated with a line card until there is demand for the line in question. Because line cards are easily added to DLC remote terminals at the frequent intervals at which technicians visit those terminals for inspection and maintenance, the Commission should use the same 94% fill factor that it adopted for switch line card fill to reflect the same efficient deployment practices. Consistency and the Commission’s efficient least-cost criterion mandate an equivalent fill factor for DLC electronics.

C. Switching Cost Adjustment

In the *Tenth Report and Order* (¶¶ 325-327), the Commission refused to make adjustments to the switch data sets that account for the savings associated with the use of integrated DLCs (“IDLCs”). The Commission grounded this decision in its findings that (1) the data already reflect savings associated with digital lines and (2) the forward-looking DLC adjustments proposed by AT&T and MCI WorldCom are not supported by the record or easily verifiable. *Tenth Report and Order* (¶ 327). These explanations, and hence, the Commission’s refusal to account for the switch cost savings associated with the use of DLCs are unsupported by the record.

First, although it is true that the switch cost data set adopted by the Commission reflects the fact that DLCs are in use, the data set is based on historical (not forward-looking) data and, therefore, significantly underestimates the percent of total working lines that are served by

¹⁶ These copper feeder fill factors exceed 70% in all but the single least dense zone.

DLCs. Indeed, the latest runs of the forward-looking synthesis model produced a 40 percent average penetration value for DLC, whereas the historical data set adopted by the Commission uses the embedded 18.3 percent penetration rate for DLCs.¹⁷ Indeed, even this 18.3% *total* penetration rate over-estimates current switch savings from GR303 IDLCs because it includes large amounts of non-GR303 IDLC. Thus, the switch cost savings associated with the use of IDLCs are significantly underestimated by the values adopted by the Commission.

Further, the switch cost savings adjustments proposed by AT&T and MCI WorldCom are both supported by the record and easily verifiable. It is undisputed, for example, that IDLC lines do not require a MDF to terminate at the switch.¹⁸ As a result, the \$12.00 MDF investment used for analog lines should be removed for all IDLC lines. Moreover, Bell Atlantic's own expert confirmed that even apart from the savings associated with the MDF, an IDLC switch port termination should cost between \$8 and \$28 less than an analog line interface.¹⁹ Therefore, the record supports total savings associated with the use of IDLC lines of between \$20 and \$40 (*i.e.*, \$12 plus between \$8 and \$28). The \$30 savings proposed by AT&T and MCI WorldCom is the midpoint of these potential saving.

VI. HOST/REMOTE TRANSMISSION SYSTEMS

The *Tenth Report and Order's* (§ 320) use of LERG data to determine host-remote switch relationships directly contradicts the Commission's stated goal to model costs using efficient

¹⁷ See AT&T/MCI WorldCom July 23, 1999 Comments at 41. This is the lines weighted DLC penetration for the companies that are included in the depreciation data set as reflected in their 1998 ARMIS 43-07 report.

¹⁸ See AT&T/MCI WorldCom July 23, 1999 Comments at 41.

¹⁹ See Declaration of Nancy Sayer on Behalf of Bell Atlantic, *In re NYNEX Corp. and Bell Atlantic Corp. Application for Consent to Transfer of Control* at 5 ¶ 11, Tracking No. 960205, 960221, (Oct. 22, 1996).

forward-looking principles, because the LERG database reflects the incumbent LECs' historic determinations to deploy host/standalone versus remote switches. Even assuming a model in which the incumbent LECs' existing wire centers remain in the same locations, their historic determinations regarding remote versus host/standalone switches would be made very differently and more efficiently under today's conditions, and cannot be relied on in a forward-looking model. In particular, embedded LERG assignments of switches as host/standalones or remotes are inconsistent with the Commission's forward-looking interoffice transport architecture that directs host/remote systems be placed on separate SONET rings.

Placing hosts and remotes on their own SONET rings is not a common practice. Indeed, it is unlikely the incumbent LECs' switch placement guidelines reflect the use of SONET rings for host/remote systems because many remotes, as specified by the LERG, are too small to be economically placed on a ring. In any event, the use of the LERG in combination with this assumption produces a vast overstatement of the necessary interoffice cost because expensive electronics and costly redundant transport are being amortized over too few subscribers. Given the SONET requirement, a necessary consideration for determining forward-looking host remote relationships is its impact on SONET ring structure cost.

VII. SIGNALING INPUTS

The current switching and interoffice transport inputs include some inputs for signaling costs that should have been modified from the original HAI values. *See AT&T Jan. 7 ex parte* at 7. Those values were based upon data from 1994 that do not incorporate the reduced cost of current signal transfer points ("STPs") and service control points ("SCPs"). As noted in

AT&T/MCI WorldCom's July 23, 1999 Comments (at 43), these costs are stale and inflated. BellSouth has provided more recent data which should be adopted by the Commission.²⁰

VIII. CUSTOMER OPERATIONS EXPENSES

Based on analysis of the ARMIS Report 43-04 data set, the per line total Customer Services Costs that are attributable to basic loop is \$2.02.²¹ A large portion of that value, \$1.05, is attributable to service order processing which is not fully recoverable as a universal service expense.²² Accordingly, the customer service value used by the Commission should be substantially less than \$2.02. The *Tenth Report and Order* (App. B at D-6), without explanation, citation or opportunity to comment, modified its customer service expense assumption of \$1.29 to \$1.44 and adopts a customer service expense value of \$3.41.²³ This unexplained change is arbitrary.

²⁰ BellSouth Aug. 7, 1999 *ex parte*, Attachment 1 to Question 1.

²¹ MCI WorldCom Jan. 14, 1999 *ex-parte*.

²² See Report and Order, *In the Matter of Federal-State Joint Board on Universal Service*, C.C. Docket No. 96-45, FCC No. 97-157 (May 8, 1997).

²³ *Tenth Report and Order*, App. B at D-6.

CONCLUSION

For the foregoing reasons, the Commission should revise the adopted input values as described in this Petition.

Respectfully submitted,

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January 3, 2000

APPENDIX A

INTEGRATED DIGITAL LOOP CARRIER COSTS

[*BEGIN PROPRIETARY***]**

[*END PROPRIETARY***]**

CERTIFICATE OF SERVICE

I, Rudolph M. Kammerer, do hereby certify that on this 3rd day of January, 2000, a copy of the foregoing "Petition for Reconsideration" was served via U.S. first class mail, postage prepaid, to the parties listed on the attached Service List.

/s/ Rudolph M. Kammerer
Rudolph M. Kammerer

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