Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

SUPPORTING COMMENTS OF QWEST CORPORATION

I. INTRODUCTION

Qwest Corporation ("Qwest"), through counsel, and pursuant to the Federal Communications Commission's ("Commission" or "FCC") rule 47 C.F.R. Section 1.429(f),[1] hereby submits our comments in support of a Petition for Reconsideration filed by Sprint Corporation ("Sprint") in the above-referenced proceeding.[2] "Specifically, Sprint requests reconsideration of the [Common Carrier] Bureau's decision to update line counts for 2001 without updating customer location and road data."[3] Qwest support's Sprint's assertion that "[f]or purposes of consistency in estimating costs, . . . customer location and road data must be updated along with line counts."[4] Indeed, Qwest itself pressed this position in comments and reply comments in this proceeding.[5] While the Common Carrier Bureau ("Bureau") rejected Qwest's position in its Order,[6] the Bureau's discussion of Qwest's position included inaccuracies regarding Qwest's position and errors in analysis. Sprint's PFR further demonstrates the extent

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[1] 47 C.F.R. § 1.429(f). And see In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Order, DA 00-2729, rel. Dec. 8, 2000 ("Order").

[2] Sprint Corporation's Petition for Reconsideration, filed Jan. 26, 2001 ("Sprint PFR").

[3] Id. at 1 (footnote omitted).

[4] Id.

[5] Comments of Qwest Corporation, filed Aug. 8, 2000 ("Qwest Comments"); Reply Comments of Qwest Corporation, filed Sep. 6, 2000 ("Qwest Reply Comments").

[6] Order ¶¶ 12-13.

to which the Bureau's decision rests on errors or assumptions or conclusions that are only partially accurate. For that reason, Qwest supports Sprint's PFR.

All told, as Sprint argues, the Bureau's decision renders the output of the Synthesis Model ("Model") inaccurate as the costs-per-line are underestimated and the economies of scope are overstated.[7] The Bureau should take this opportunity to reconsider its position. A failure to grant Sprint's PFR results in the Model being less accurate than it should be and, therefore, less successful in predicting the universal service fund ("USF") needs of customers and carriers.

In the event the Bureau determines not to reconsider its position, it must proceed with a sense of urgency to update the customer location data incorporated in the Model. Qwest proposes that the Bureau act expeditiously to update the customer location data with updated census data, as soon as each of these data products becomes available. Moreover, the Bureau should establish, now, a "periodic update" schedule for the Model so that regular updates of customer location data as well as line count data are accommodated.

II. SPRINT'S SPECIFIC ARGUMENTS ARE WELL FOUNDED AND GROUNDED

In its Order, the Bureau determined that it made logical and legal sense to update the total line count inputs to the Model without also updating customer location counts.[8] This was a position opposed by Qwest in earlier-filed comments, as the Bureau acknowledged.[9]

As Sprint again persuasively demonstrates in its PFR, due to the Model's construction,[10] customer locations and road data are a material and substantial component in determining costs.[11]

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[7] Sprint PFR at 2.

[8] Order ¶¶ 1, 9-13.

[9] Id. ¶¶ 12-13 and nn.27-29.

[10] In Qwest's Comments we pointed out that the Model's "estimate of the cost of serving customers located within a given wire center's boundaries includes the calculation of switch size; the lengths; gauge and number of copper and fiber cables; the cost of placing the cables; and the

One variable, i.e., line count data, cannot be updated without updating others which are closely correlated, i.e., customer locations and road data, or the output of the Model is not as accurate as it can or should be. And, a continued determination to proceed as the Bureau has done would be contrary to Commission-precedent, adopted to assure the most accurate result possible with respect to USF funding.[12] As Sprint so well puts it,

> Because of the way the model is constructed, the locations and road data actually play a larger part in determining costs than line count information. . . . [L]ine counts determine the size of the cable, but locations and road data determine the layout of the cable. Line counts determine the size of the DLC, but locations and road data are needed to determine the number of DLCs. It would be a mistake to update one set of data and ignore the other two in the name of expediency. Such a move would raise serious and legitimate questions regarding the cost estimates produced by the model.[13]

A. The Background Associated With The Current PFR

When the Bureau sought comment on the need for updated information regarding line count values, its Public Notice demonstrated its objective to update inputs to the Model so that the output, i.e., the cost-per-line, would decrease. The Bureau theorized that its proposed

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number of digital loop carrier ("DLC") terminals required. These factors depend on how many customers the wire center serves, where the customers are located within the wire center boundaries, and how they are distributed within neighborhoods." Qwest Comments at 2.

[11] Sprint PFR at 5-6. See also Qwest Comments at 2-3 ("As growth occurs over time, new serving areas are added to provide service to newly built neighborhoods on the periphery of the currently developed areas. This would not be reflected in the [Model] itself, however, unless the customer location data is updated. . . . The total cost calculation of the [Model] is highly dependent on the number of customer locations in the wire center and the dispersion of the customer locations throughout the neighborhoods served by the wire center.").

[12] The Commission previously acknowledged the inextricable connection between line count and customer location data (see Qwest Comments at 5-6 (quoting from the Commission's finding in the Tenth Report and Order, 14 FCC Rcd. at 20183-84 ¶ 56), where the Commission found that when using current customer line counts it was appropriate to use current customer locations in the formula) -- a Commission finding that the Bureau did not even acknowledge in its discussion of the matter in its Order.

[13] Sprint PFR at 6-7.

updates to the Model would result in "support amounts" being decreased.[14] Stated differently, the Public Notice demonstrated a bias toward making changes to the Model where those changes would result in a larger number of lines to divide into a carrier's costs. By changing the denominator (which contains line counts) and not the numerator (which contains two-year old customer location information), the Bureau could accomplish a potential reduction in the size of the high-cost USF.[15]

Its Order continues to reflect this bias. The Bureau determined to change the denominator of the USF calculation. The Bureau makes the decision to update line counts (the denominator), because a failure to do so "would fail to reflect the economies of scale generated by serving an increasing number of lines" and could "cause non-rural support to increase indefinitely as reported lines increase."[16] But, the Bureau then went on to refuse to change the numerator of the calculation (the customer locations). Its refusal is not based on logic, law or sound policy, as Sprint makes obvious.

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[14] For example, in its Public Notice the Bureau stated that "[i]f the average cost is not adjusted for line growth, line growth always results in an increase in support amounts. If, on the other hand, the reported lines are incorporated earlier in the process, that is, in determining the average cost-per-line, the shared costs are spread over more lines and the average per-line support amount could decrease." Public Notice, Common Carrier Bureau Seeks Comment On Updating Line Counts For Calculating High-Cost Universal Service Support For Non-Rural Carriers For The Year 2001, DA 00-1626, rel. July 24, 2000, at 2, n.9. While Qwest took exception to the Bureau's assumption (Qwest Comments at 4), for purposes of this discussion, the Bureau's remarks do evidence its bias.

[15] Qwest Comments at 4. Clearly, even simple math demonstrates this consequence. If the numerator is 5 and the denominator 15, the result is 1/3. If the numerator is 5 and the denominator increases to 20, the result is 1/4. If both the numerator and denominator increase (for example, 6 is the numerator and 18 is the denominator), the end result may stay the same (i.e., 1/3). If, on the other hand the numerator and denominator both increase but the numerator more than the denominator, the end result may increase overall (i.e., if 9 is the numerator and 18 the denominator or 1/2).

[16] Order ¶ 9.

B. Particular Infirmities Of The Bureau's Order

A failure to update customer location (including road) data when updating line count data arbitrarily reduces the cost-per-line served, the basis on which the support amounts of the USF high-cost funding are calculated. This arbitrary reduction, in turn, results in carriers being insufficiently reimbursed for their costs incurred; and provides an inaccurate picture to the world (customers, policy makers, legislators) of the cost of providing service for which USF high-cost support is supposed to be available.[17]

In its discussion, the Bureau claims that Qwest made a certain "concession" about the way in which the Model estimates forward-looking costs. It stated that "increased line counts reflect one of two situations: (1) additional lines at **existing** locations; and (2) lines at **new locations**."[18] The remainder of the Bureau's discussion focuses on factor (1),[19] essentially ignoring factor (2). After expressly finding that only 65% of new lines could be associated with factor (1) -- meaning that 35% could not -- the Bureau then determines that it is going to treat

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[17] See Qwest Comments at 3 to the effect that "[t]he unit cost (cost per line) is the critical calculation in 47 C.F.R. § 54.309 that determines whether a non-rural company qualifies for federal high-cost support and the amount of high-cost support that it may receive."

[18] Order ¶ 12 (emphasis added). The Bureau's use of the term "concession" is rather strange, since it then simply recites well-established facts associated with the construction of the Model, something that most commenting parties would not be "conceding" or "opposing."

[19] Within paragraph 12, the Bureau continues: "When additional lines are added at existing locations the model takes into account additional costs involved, such as larger cable sizes and increased capacity [DLCs]. Contrary to Qwest's claim, the numerator . . . would not remain stagnant . . . [W]e estimate that approximately 65 percent of the increase in residential lines is due to additional lines at existing locations rather than to lines at new locations." (Emphasis added.)

As Sprint points out, the Bureau's assumptions about the Model's incorporation of larger cable size and increased DLC are only partially correct. If additional line growth drives the cable or DLC size over the threshold reflected in the Model from one size to the next, there will be a change in cost. Sprint PFR at 7.

100% of additional lines as if they were associated with factor (1). The matter associated with the 35% of the remaining lines is, in Sprint's words, "completely dropped."[20]

The Bureau's rationale for taking this action is in large part due to its desire to keep the support amount depressed. According to the Bureau, a failure to act in December, 2000 to update line counts would have been imprudent because "the time lag between the model inputs and the reported lines used to determine support would continue to grow without any readjustment."[21] Stated differently, the Bureau did not want support amounts to grow. It wanted the amount to decrease.[22]

The Bureau did proffer a second reason, however, for rejecting Qwest's advocacy. It argued that the "significance" of the affect on the calculation for support would not be as material as Qwest argued because "the model currently uses road surrogate customer location data."[23] According to the Bureau,

> If the "missing" new locations are anywhere along the road network used to create the surrogate locations, the outside plant structure costs already would be included in the model's cost estimates. Thus, until the model uses updated customer location data, outside structure costs could be underestimated only to the extent that new locations would be along new roads.[24]

By the Bureau's own admission, then, "to the extent that new locations would be along new roads," the Model would underestimate costs, unless it took into consideration updated

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[20] Sprint PFR at 5.

[21] Order ¶ 13.

[22] The increased line counts ordered for the Model implicitly assume that 100% of the additional lines are applied as secondary lines to existing locations. This understates costs. The Bureau itself states that 35% of the lines go to new locations, so 35% of the lines should not be assumed to generate additional secondary lines. Therefore, only 65% (100% less 35%) of line growth should be input into the Model. This will generate more accurate per-line costs. Once the per-line cost is calculated, support should be calculated based on actual line counts.

[23] Order ¶ 13.

[24] Id.

customer location data. And, as Sprint points out, the Bureau's assumption that the Model already includes costs associated with '"missing' new locations anywhere along the road network used to create the surrogate locations" is in error.[25] Sprint's Attachments demonstrate pictorially the extent to which the Bureau is simply incorrect in this assertion.[26] Thus, costs for serving these missing locations would either be ignored altogether or would -- at a minimum -- be underestimated, as Sprint demonstrates in its PFR.[27]

Not only are costs which the Commission assumed were included in the Model not included in the Model, but -- by the Bureau's own admission -- other costs will not be included in the Model in the first instance, absent a decision to update customer location data for new locations along new roads. These new customer locations (new locations along new roads) could represent 35% of the "new line" input the Bureau determines not to include in the USF support calculation.[28] As Sprint notes, the Bureau makes no attempt to explain how or when it intends to "correct" for this underestimation. Rather "the issue is completely dropped."[29]

The Bureau should reconsider its decision to "take into account the fact that significant improvements have been made to road data sets since 1996. . . . [C]ertain roads that appear in current data sets existed in 1996, but were simply omitted or excluded from data sets available at that time."[30] This is especially true given that the Bureau's failure to include this information results in inaccuracies not only because data that should be included is not but because the data

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[25] Sprint PFR at 3.

[26] The third slide of Attachment A, for example, makes clear that the "missing" new locations along Roads B and D are not included in the costs incorporated in the Model.

[27] Sprint PFR at 4 (first full paragraph).

[28] Considering Qwest serves some of the fastest growing counties in the United States, its portion of lines going to new locations is likely higher than 35 percent.

[29] Sprint PFR at 5.

that Sprint (and Qwest) argue should be included will affect the current construction of the Model, as well.[31]

Similar to Sprint's experience, Qwest also can certify that it has experienced "significant change in the number of roads, and miles of road, since 1996."[32] Many of the "economies of scale generated by serving an increasing number of lines"[33] are overstated. The attached diagram demonstrates the network elements whose costs are inappropriately reduced by increasing line counts without updating customer location data. To generate the data, the Model was run under two scenarios: default line counts from the Commission's January 27, 2000 Model and those same line counts increased by a uniform 10%. The comparison of these two scenarios shows where costs decrease due to increased line counts. The diagram shows that increasing line counts without updating customer location data generates inappropriate efficiencies in areas such as Network Interface Devices [NID], Distribution, and Feeder. A failure to include customer location data associated with those new roads (and new customer locations) necessarily results in an understatement of costs input into the Model. As Sprint correctly argues:

> If the [Bureau] chooses to update line counts and ignore locations and road miles, these new customers will be distributed over existing locations and the cable and outside plant required to serve all customers will not be reflected in the model. The result will be cost estimates that are truly biased. It is both inaccurate and unfair to simply dismiss the impact of new roads and new locations along those roads.[34]

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[30] Id.

[31] As Sprint demonstrates, inclusion of the "new roads/new location" data could cause the serving areas currently incorporated in the Model to change. "This, in turn, could affect multiple aspects of outside plant construction," including the size and number of DLCs needed in the study areas. Id. at 6.

[32] Id. at 5.

[33] Order ¶ 9.

[34] Sprint PFR at 5.

III. IF SPRINT'S PFR IS DENIED, THE COMMISSION NEEDS TO MOVE FORWARD WITH A FURTHER RULEMAKING TO UPDATE CUSTOMER LOCATION DATA

The Bureau ordered the use of line count updates without customer location updates "until the Commission adopts new customer location data."[35] However, the Bureau did not discuss when the Commission might engage in such an "adoption." Given the connection between line counts and customer location data, the Commission should plan periodic updates to both types of data.

Should the Bureau deny Sprint's PFR (which might, of course, result in an Application for Review to the Commission on this matter), Qwest recommends the Commission rebuild its customer location data files as soon as the appropriate U.S. Census Bureau data products are available. Such update data should be available in the second half of 2001 and final data available sometime in 2003.[36]

Qwest urges the Bureau to coordinate with the Commission to act expeditiously to update the customer location data incorporated in the Model as soon as each of these data products become available. Moreover, the Bureau should establish, now, a "periodic update" schedule that regularly updates customer location data as well as line count data. This kind of certainty would avoid the type of attack currently being undertaken regarding the Model, as well as free-up carrier resources from comment/reply/PFR cycles on the most fundamental requirement for a fair model of any kind (let alone one predicting outcomes associated with something so critical as universal service): accuracy of all inputs that can materially affect parties dependent on the outcomes.

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[35] Order ¶ 12.

[36] See U.S. Census Bureau web page: http://www.census.gov/population/www/censusdata/c2kproducts.html.

IV. CONCLUSION

For the above reasons, Qwest urges the Bureau to grant Sprint's PFR and to update customer location information along with line count information.

Respectfully submitted,

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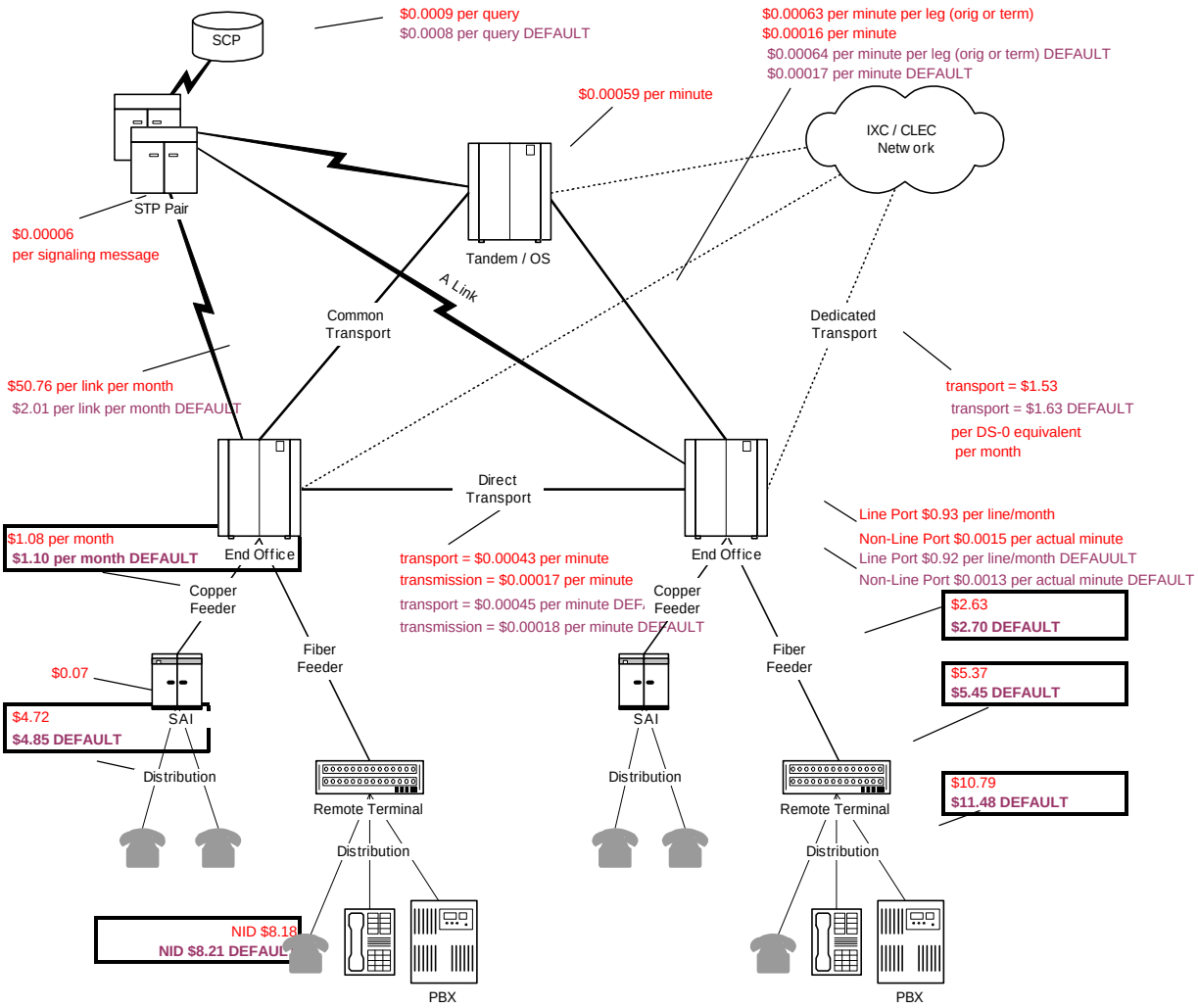
February 27, 2001

Network Diagarm With Costs After 10% Increase In Lines

Colorado / Mountain Bell-Colorado



THIS EXHIBIT COMPARES THE DEFAULT SM COSTS TO THE COSTS GENERATED BY INCREASING LINE COUNTS BY 10%

WHERE NO DEFAULT FIGURE IS PRESENTED, COSTS DID NOT CHANGE BETWEEN SM RUNS

COST ELEMENTS IN BOXES ARE UNJUSTIFIED EFFICIENCIES CAUSED BY INCREASING LINE COUNTS WITHOUT INCREASING CUSTOMER LOCATIONS

CERTIFICATE OF SERVICE

I, Richard Grozier, do hereby certify that I have caused the foregoing **SUPPORTING COMMENTS OF QWEST CORPORATION** to be filed with the FCC via its Electronic Comment Filing System, and (1) a copy of the **COMMENTS** to be served, via hand delivery on all parties denoted with an asterisk (*), and (2) a copy of the **COMMENTS** to be served via United States First Class Mail, postage prepaid, upon all other parties listed on the attached service list.

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February 27, 2001

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CC96-45a.doc
Updated 2/27/2001