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BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of AT&T Communications of the)
Southwest, Inc.'s Petition for Arbitration Pursuant)
to Section 252(b) of the Telecommunications)
Act of 1996 to Establish an Interconnection)
Agreement with Southwestern Bell Telephone)
Company.)

Case No. TO-97-40

Petition of MCI Telecommunications Corporation)
and its Affiliates, Including MCImetro Access)
Transmission Services, Inc., for Arbitration)
and Mediation Under the Federal)
Telecommunications Act of 1996 of Unresolved)
Interconnection Issues with Southwestern)
Bell Telephone Company.)

Case No. TO-96-67

JOINT INITIAL BRIEF OF MCI TELECOMMUNICATIONS CORPORATION
AND AT&T COMMUNICATIONS OF THE SOUTHWEST, INC.

November 8, 1996

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JOINT INITIAL BRIEF OF MCI AND AT&T

Cost Issues

1. What costing model should the Commission utilize in this proceeding?

MCI Telecommunications Corporation and affiliates including MCImetro Access Transmission Services, Inc. (MCI) and AT&T Communications of the Southwest, Inc. (AT&T) submit that the Hatfield Cost Model ("HCM"), as presented by AT&T through its witness Mr. Flappan, best complies with the FCC's requirements for forward-looking incremental costing models and should be used in this case as the basis for setting prices as mandated by Section 252(d) of the federal Telecommunications Act of 1996 ("FTA" or "Act").¹ S. Goodfriend Direct, MCI Ex. 52, at 22-27; F. Warren-Boulton, ATT Ex. 32, at 14-18. As discussed below, the models submitted by SWB do not meet these requirements, cannot be verified in this case, and should not, in fairness, be used to set prices. S. Goodfriend Direct, MCI Ex. 52, at 2-6 and Exhibit 1.

The HCM is a forward-looking economic cost model which uses publicly available data to compute costs and which conforms to the FCC's criteria. R. Flappan Direct, ATT Ex. 34, at 8-9, 16-19. The HCM conforms to the FCC's requirements that a study be forward-looking; be for the long run; establish cost for the total quantity of the network element needed to meet the projected demand; use existing wire centers, but otherwise develop the most efficient network configuration to meet the

¹ On October 15, 1996, the United States Court of Appeals for the Eighth Circuit stayed the effectiveness of the FCC's Order on, *inter alia*, the issues of pricing and costing. This does not mean that this case cannot proceed. The statutory pricing standard enunciated in Section 252(d) of the FTA by itself provides a sufficient legal basis for the Commission to go forward with this case. Furthermore, even if it is no longer binding on the states, the FCC's Order still provides persuasive interpretation of the FTA as well as sound policy and economic reasons to adopt a costing and pricing scheme like that set out in the order. See Joint Brief Regarding Stay.

demand; and determine a reasonable allocation of forward-looking common costs.² FCC Order, ¶¶ 674-703. SWB does not seriously challenge the forward-looking nature of the HCM.³ The HCM is the best cost study available to the Commission upon which to set prices for unbundled network elements and interconnection and should be adopted by the Commission.

Conversely, SWB's cost studies are backward-looking cost studies which here and there incorporate SWB's notion of a forward-looking adjustment to historic or embedded cost, much as a painter might do spot touch-up on an old room. Labor rates are embedded; fill factors are embedded; building and maintenance expenses are embedded; outside plant is incorporated into the studies as it exists on the ground today and is embedded; SWB uses the same switches at the same locations as they exist today, without considering what a forward-looking efficient system might best require. Tr. at 465, 469, 473, 554. The list goes on and on.

This is not what was contemplated by Congress when it passed the pricing standards in the FTA. The FTA fundamentally altered the landscape of telecommunications regulation. The parties all recognize this and yet, throughout the arbitration, constant reference was made by SWB to the way things used to be done, as if there ought to be a linear relationship between the past and the future. There isn't. To state it in mathematical terms, on February 8, 1996, telecommunications became a discontinuous function.

² The Hatfield Model uses publicly available data, which means that it does use ARMIS data for certain inputs. ARMIS data are historical. However, those data are adjusted in many instances to reflect forward-looking costs. In any event, the use of uncorrected ARMIS data would work to SWB's advantage by almost certainly overstating costs.

³ If anything, SWB's complaints were that the HCM is too forward-looking in its use of efficient, forward-looking technology. This criticism, implicit in much of what SWB said regarding the use of certain technologies, has no merit. The HCM appropriately utilizes forward-looking technology wherever efficiently possible.

SWB's decision to file a fully embedded cost study in order to provide a "reasonableness" perspective, W. Bailey Direct, SWB Ex. 23, at 6, speaks volumes about SWB's real perspective. It wants this Commission to be thinking with an eye towards the past as much as possible, in an attempt to conform these fundamental changes in how the telecommunications business is conducted to a linear extrapolation of past cost, past investment, and past practices. But the FCC clearly stated that this was not how things should be done. The FCC's rules affirmatively prohibit using "the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts" in any TELRIC study. 47 CFR Section 51.505(d)(1). Not only are the costs presented by SWB historic, but the technology represented by those costs is often historic as well, representing the thinking and design of the past. SWB's use of embedded costs for so many of the inputs to its models belies its attempts to characterize its models as forward-looking.

The HCM complies with the FCC's concept of total element long-run incremental cost. The FCC defines the long run to be such a period that all inputs are variable, including all investments, existing contracts, and the like.⁴ FCC Order, ¶ 692. This means that all parameters may be changed to accommodate efficient, forward-looking technology and anticipated changes in the way that services are delivered. The HCM, while using existing wire center locations, otherwise builds a network from the ground up, using forward-looking technology at every step and doing so in the most efficient manner. All inputs are variable.

⁴ The long run is defined as an economic state of affairs where all inputs, investments, contracts, and other elements of business are subject to change, i.e., are variable inputs. Given this definition, the fact that all technology is to be forward-looking technology, that only the location of the wire centers is fixed, and the fact that the increment of demand is the entire demand, SWB's criticism of the HCM that it assumes instantaneous build-out is misplaced. Indeed, MCI sees this criticism as a subterfuge, meant to wrongly induce the Commission to allow SWB to use its existing network and existing costs as inputs into SWB's cost models. This would be an erroneous practice, however, since all inputs must be variable (*i.e.*, subject to change) and because the FCC explicitly and properly stated that no embedded data were to be used. *See* 47 C.F.R. § 51.505.

The demand that is modeled in the HCM is the total element demand. As Mr. Flappan testified, R. Flappan Direct, ATT Ex. 34, at 8:

The increment that the Hatfield Model studies is the entire quantity of the network element, both as the incumbent LEC uses that network element to provide its own retail services and as it provides access to that network element to other carriers on an unbundled basis.

The demand which is studied thus comports with the FCC's requirement.⁵

SWB's cost studies are not in compliance with the FCC's concept of total element long-run incremental cost. As noted by Dr. Goodfriend, SWB's studies look more like short run embedded cost studies than long run incremental cost studies. S. Goodfriend Rebuttal, MCI Ex. 53, at 2, 6-10. Because SWB's studies use historical costs and technology as their foundation, they inherently do not comport with the notion of a long-run study. In fact, using that historical base, most of SWB's studies terminate in 1998 or 1999, far too soon for its studies to develop the long-run incremental costs of providing the network element as required by the FTA. Tr. at 389, 469. Instead, SWB's models, at best, are short-run linear extrapolations of its embedded network. This is not what the FCC had in mind when it defined the parameters of a TELRIC study. Finally, in its studies SWB only uses the demand which existed in 1995 as the demand to be served. Tr. at 469. On its face, this is a backward-looking demand which violates the FCC's injunction to look to the total future demand and, consequently, to calculate the *total* element incremental costs. The failure to account for increased future demand would guarantee that total element incremental costs will be overstated.

⁵ SWB criticized the HCM for the failure to take account of a perceived reduction in demand for SWB's network elements in the future. Tardiff Rebuttal, SWB Ex. 12, at 15. First, this reduction is highly speculative. Second, it assumes that demand for services will decline, resulting in a reduction in revenues. Experience in the long distance market is the opposite. Finally, even if this were a legitimate issue, the HCM demand could be adjusted to address it.

The HCM defines a real network with real inputs based on reasonable, and often conservative, assumptions about the cost of a telephone network, using forward-looking technology with existing wire centers, constructed to serve a given increment of demand. R. Flappan Direct, ATT Ex. 34, at 8-9. One of the unusual things about this exercise is that the increment of demand is the entire demand, not an added volume as one might expect in an incremental cost study. For this reason, and because it is a long run study, every investment, every input, every contract may (and should) be changed. In essence, the mandated initial conditions established for TELRIC studies demand that a new system be developed using forward-looking technology and the most efficient network design available using existing wire centers. This the HCM does and does well. It therefore fully complies with the FCC's Order.

Throughout this proceeding, SWB has criticized the HCM as being "hypothetical," not "empirically" tested, while characterizing its own models as reflecting a "real" system. Neither the criticism nor the characterization have merit. First, it is inherent in a forward-looking economic cost model that it will be a projection. Indeed, the whole point of a TELRIC model is to determine the cost of the most efficient network using forward-looking technology with only the existing wire centers as fixed points of reference. By definition this must be modeled and estimated and, hence, must be "hypothetical." That does not mean, however, that the results of the model are unreal. As Mr. Flappan stated: "It is not true, however, that the Hatfield Model reflects "fantasy" technology and design decisions. As I have noted earlier, the FCC rejected the claim by some parties that models such as the Hatfield Model cannot produce reasonable cost estimates." R. Flappan Direct, ATT Ex. 34, at 23. As explained below, the inputs used in the HCM are both SWB- and Missouri-specific

and the model realistically creates both an efficient forward-looking network and real, reliable costs for that network.

If there are no “hypothetical” or projected elements to SWB’s studies, then they cannot be real TELRIC studies; they must be embedded cost studies. There is a direct relationship here: the closer a study is to the actual historical data, the actual historical network configuration, and the actual historical methods and practices, the further away that study will be from a genuine TELRIC study.

There really is no reason to prefer SWB’s models to the Hatfield Model on the perceived notion that the former are “closer” to the existing network. First, because of the sampling techniques used by SWB and its resort to “factors” for many and various inputs, the conclusion that SWB’s studies “mirror” the existing system is, in fact, misleading. *See, e.g.*, Tr. at 361-62. Indeed, SWB only sampled a very tiny number of loops, switches, etc., in performing its cost studies. Tr. at 485, 487. Second, proximity to the existing network should not be a criterion, since the FCC Order requires the most efficient network, using forward-looking technology with existing wire centers. SWB’s existing network, built while SWB held a guaranteed monopoly, should not be assumed to so qualify. Third, the goal is to properly calculate the total element long-run incremental costs. “Mirroring” the existing network design does not necessarily improve one’s chances for success. Indeed, if embedded technology and investment are used in the study, mirroring the existing network will all but guarantee failure. Finally, the implication that the HCM is a generic “one size fits all” model that is not Missouri-specific is misplaced. The HCM--like the Bellcore models used by SWB-- is a model used nationwide with state-specific inputs. *Cf.* Tr. at 391-92.

Contrary to SWB's criticisms, the HCM *does* properly reflect the circumstances and conditions of SWB's system.⁶ As explained by Mr. Flappan at the hearing, the HCM uses SWB-specific demographics and terrain data. Census bureau data are used at a very small level of aggregation -- about 400 homes. The terrain data base is Missouri-specific and reflects such features as rockiness of the surface, depth of bedrock, and other geographic and geologic data for SWB's service areas. R. Flappan Direct, ATT Ex. 34, at 19. The HCM uses SWB's own reported line counts and traffic volumes. The HCM uses existing wire center locations for SWB and goes further to include existing tandem switch locations and the signaling transport point where information is passed between switches. The STP locations used by the HCM are the existing ones. *Id.* The HCM thus models the development of the network using data that is quite specific to Missouri and to SWB.

The HCM also makes allowances for local conditions. Contrary to SWB's complaint that the HCM does not account for rivers and mountains, topographic conditions are factored into the model. This factoring provides for additional miles of lines to account for such problems.⁷ *Id.* at 25. Just because a river is not drawn on a graph someplace does not mean that the challenges represented by a river are not taken into account in the HCM. Such issues are taken into account by the model, and

⁶ If the sample manipulation techniques of SWB reflect the system, then the HCM must also reflect SWB's system since many SWB specific inputs are used in the model.

⁷ These local condition factors may be applied on a CBG-by-CBG basis. By factoring in local conditions, the HCM automatically provides for additional miles of lines to meet the specific topographic condition. It is irrelevant that a rectilinear algorithm establishes the base amount of line necessary to serve the intrinsic population. What is important is that the aggregate miles of line called for by the model ultimately conservatively estimates the amount of line needed in the CBG. Neither is it necessary to graph out the lines, so to speak, in order to accurately estimate the amount of cable and ancillary equipment needed to serve the demand. That is a mathematical function which is integrated into the algorithm used to make the estimate. Because we are estimating an entire network over a rather large area (SWB's entire Missouri service area), these mathematical algorithms are more likely to accurately estimate the totals needed. This methodology actually makes more sense than the sampling and statistical analyses performed by SWB.

SWB's criticisms are not valid.⁸ The HCM uses publicly available data and is thus transparent. In contrast, SWB's studies are so opaque that no-one can fully understand them, much less run them.

Finally, because the HCM takes a fresh approach to the creation of a forward-looking efficient network, it does not include any over-provisioning that may be included in SWB's network for other (*i.e.*, strategic) reasons, such as the offering of broadband services. The network projected by the HCM also does not include any monopoly inefficiencies which exist in SWB's actual network. This is especially important when one realizes that over the years SWB had every incentive to increase the amount of plant in rate base in order to increase its earnings under traditional rate regulation. Thus, unless one is exceptionally careful,⁹ a model which is based on sampling the existing network is very likely to include excessive amounts of plant for the given level of demand and will carry forward into the TELRIC study those monopoly inefficiencies. Neither result should be allowed.

The HCM projects a realistic network configuration using forward-looking technology which is exactly the kind of network SWB would need to provide the services at the level of demand used in the model. Many of the inputs (some 490 in number) can be varied and thus the model can be thought of as self-correcting: if new data shows that a certain input should be changed, then the model can easily be modified. Although the model requires a powerful PC, it can be run by anyone and is completely transparent. Indeed, SWB has a copy of the model and *has* run it. Tr. at 538; SWB Ex. 79 (late-filed exhibit using SWB's inputs to the HCM) This is especially important for reasons of verifiability. SWB's insistence on keeping its models opaque and secret all but insures that

⁸ SWB witness Mr. Hearst is evidently unaware that the HCM adds a 40% factor to airline miles in calculating miles of line needed via the rectilinear coordinate method. R. Flappan Direct, ATT Ex. 34, Appendix C (wire center parameters).

⁹ For a variety of reasons, the Applicants doubt very much that SWB has even recognized this as a problem, let alone been careful about it.

nobody except SWB (if even it) understands what is going on. This is an inferior state of affairs to that which obtains with the HCM. Finally, the HCM is a single model, whereas SWB has filed literally dozens of separate models which are not necessarily compatible with each other and which do not estimate costs in a consistent manner.

The Applicants submit this Commission should adopt the Hatfield Model in this case. As Commissioner Crumpton noted, the debate may be over inputs to the model, not the model itself. *Cf.* Tr. at 435. The Hatfield model is one model, not dozens, and one which is both easy to use and open for all to see, not shrouded in secrecy and proprietary data. Its 490 inputs can be easily changed, are consistent, and do not suffer from the failings of SWB's questionable sampling techniques which are not even described in its testimony. Tr. at 487, 824. Finally, the contrast between the openness of the HCM--and the attendant ease by which the HCM may be examined and run--compared to the confidential nature of and manner in which the SWB cost studies were made available is very telling.

The HCM inputs are reasonable, have been derived from reliable sources, are based on considerable expertise in the industry, and should be accepted by the Commission. These inputs are readily verifiable since they are derived from publicly available data. Moreover, if the Commission disagrees with any input, the remedy is straightforward. The beauty of the HCM is that some 490 inputs are user definable, can be easily changed, and the model then rerun.

2. **What capital costs should be utilized in cost in TELRIC cost studies?**

The FCC concluded that "the currently authorized rate of return at the federal or state level is a reasonable starting point for TELRIC calculations," but indicated that "[s]tates may adjust the

cost of capital if a party demonstrates to a state commission that either a higher or lower level of cost of capital is warranted.” FCC Order, ¶702. It recognized that the currently authorized federal 11.25 percent rate of return might be too high given the current marketplace cost of equity and debt. *Id.*

Using publicly-available data and accepted financial procedures, Dr. Brad Cornell developed the forward-looking, weighted average cost of capital (“WACC”) for SBC--the diversified parent holding company of SWBT--to be in the range of 9.10 to 10.31 percent. B. Cornell Direct, ATT Ex. 43, at 3. Dr. Cornell recommends that the average of the range, or best point estimate of 9.71 percent should be used in calculating the costs of SWB’s leasing of the network elements. *Id.* at 3, 31. This best point estimate is high, since the cost of debt and equity on which it is based is that of SBC, the diversified holding company, which operates a variety of businesses, all of which face more risk than SWB will face in leasing its local exchange network. *Id.* at 31-33. The business for which the cost of capital is relevant is SWB’s leasing of the local exchange network--virtually a monopoly product which does not face competition for the near term. *Id.* There is currently little facilities-based competition with little threat that SWB’s facilities will be idle, as all forms of competition may spur increased use of SWB’s facilities.

SWB’s proposed cost of capital of 10.61 percent (as used in SWB’s cost studies) is overstated.¹⁰ It is based on a cost of capital computed by SWB apparently for SWB’s own internal purposes during 1995. W. Avera Direct, SWB Ex. 21, at 2. The cost of capital from 1995 cannot be considered a forward-looking cost of capital. The cost of capital determined in 1995 is backward-looking. Forward-looking cost of capital, by definition, depends on what interest rates will be in the

¹⁰ Unlike SWB witness Avera, who recommends a 10.61 percent cost of capital, SWB witness Cooper used an 11.25 percent cost of capital for both the interstate *and* intrastate pieces in his backward-looking, fully-embedded cost analysis. Tr. at 1005.

future and what may be anticipated in the future, not on embedded costs of debt.¹¹ The only other basis upon which SWB claims it should have a higher cost of capital is that its parent holding company, SBC, intends to change its capital structure by increasing equity and decreasing debt.¹² However, the ratepayers of Missouri should not be forced to pay a higher cost of capital for the inherently riskier business of SWB's parent holding company, rather than for the incumbent LEC itself.¹³

SWB is not facing immediate risk in the local market, as elements like the local loop have a strong component of monopoly power. In fact, SWB's parent company's actions in the purchase of PacTel underscores the fact that SWB and its parent holding company are not viewing the current environment as one of high risk, but one of an unprecedented demand for the local network.¹⁴

Based on the foregoing, the 10.01 figure used in the HCM run sponsored by Mr. Flappan is more than reasonable and appropriate.

¹¹ Interest rates have declined since 1995, and SWB has experienced record earnings with higher dividends. B. Cornell Direct, ATT Ex. 43, at 28.

¹² Dr. Avera's alternative proposal of using the cost of capital of 11.25 percent is clearly not consistent with the FCC's directive to use a forward-looking cost of capital. The 11.25 percent was set by the FCC in 1989. The FCC instituted a preliminary inquiry to determine whether the 11.25 percent was too high given the current cost of equity and debt, but determined that they would not engage in a time-consuming examination to determine a new rate of return. The issue was left to the states to resolve. FCC Order ¶702.

¹³ For instance, SBC's choice to pay an \$8 billion premium over book value for PacTel and SBC's intention to go into cable or video businesses. See ATT Ex. 71.

¹⁴ Indeed, the October 18, 1996 Wall Street Journal reported that AT&T's profits are down reflecting "cutthroat competition in long distance and stepped up spending on new businesses" while "Pacific Telesis and SBC reported healthy quarterly profits, buoyed by strong demand for second phone lines"

Network Issues

Unbundled Network Elements

3. What unbundled network elements should SWBT be required to make available?

Unbundled network elements are the gateway to facilities-based competition. Even before a new entrant's own facilities come into play, access to the functionalities of unbundled network elements enables the new entrant to benefit customers by providing different services from those offered by the incumbent LEC. FCC Order, ¶ 332. The FCC defined the "minimum set" of network elements that incumbent local exchange carriers (LECs) must unbundle. The FCC specifically found that the following unbundled elements were technically feasible for incumbent LECs to provide: (1) Local Loop; (2) Local and Tandem Switching; (3) Interoffice Transmission Facilities; (4) Databases and Signaling Links (including Signaling Links and STPs, LIDB and Toll Free Calling Databases, AIN Call Related Data Bases (and associated application software), and Service Management Systems (SMS)); and (5) access to Operations and Support Systems for preordering, ordering, provisioning, maintenance, repair and billing by January 1, 1997.¹⁵ The FCC further found that incumbent LECs must provide nondiscriminatory access to Operator Services and Directory Assistance and must unbundle the facilities and functionalities providing these services at any technically feasible point as separate network elements. FCC Order, ¶¶ 534, 536.

In addition, the FCC described the standards, functionalities, and capabilities that must be provided with unbundled network elements. First, the FCC held that the term "network element" includes physical facilities, such as the loop, switch, or other node, as well as logical features,

¹⁵ FCC Order, respectively, at ¶¶ 377, 410, 439, 479, 484, 486, 494, 520 and 525 (specifically finding technical feasibility).

functions and capabilities that are provided by" the physical facility. FCC Order, ¶ 260. Second, the FCC held that new entrants may combine the unbundled network elements in any manner they deem appropriate in deploying their networks and offering service and, relatedly, that there is no requirement that a requesting carrier own any local exchange facilities in order to purchase unbundled network elements. *Id.*, ¶¶ 292, 328. Finally, the FCC held that the local switching element encompasses line-side and trunk-side facilities, plus all features and capabilities, including "all vertical features" the switch is capable of providing such as "custom calling, CLASS features and CENTREX." *Id.*, ¶ 412.

SWBT has agreed that the above identified set of network elements are the minimum required by the FCC to be unbundled and SWBT has indicated this Commission should order at least this level of unbundling. [Tr.p.1190, line 6-13].

4. **Should loop cross connect be a separate unbundled network element?**

AT&T and MCI challenge SWBT's proposal to require new entrants to purchase loop cross connect as a separate unbundled network element. It appears that SWBT is proposing the cross connect as a separate element in order to inappropriately impose an additional \$2.70 per month per connection charge on new entrants in a manner inconsistent with the FCC's Order.¹⁶ In discussing the capabilities and functionalities that must be made available as a part of the local loop, the FCC specifically found that:

[i]ncumbent LECs must provide cross-connect facilities, for example, between an unbundled loop and a requesting carrier's collocated equipment, in order to provide

¹⁶ SWBT's strategy could be an attempt to hide additional charges on top of its already above-proxy ceiling loop rates

access to that loop. . . . We highlight this requirement for unbundled loops because of allegations by competitive providers that incumbent LECs have imposed unreasonable rates, terms, and conditions for such cross-connect facilities in the past. Incumbent LECs may recover the costs of providing such facilities in accordance with our rules on the cost of interconnection and unbundling. Charges for all such facilities must meet the cost-based standard ... and the terms and conditions of providing these facilities must be reasonable and nondiscriminatory under Section 251(c)(3).

FCC Order, ¶ 386.

Thus, it would be inappropriate and inconsistent with the FCC Order for the Commission to find that the loop cross-connect itself is an additional unbundled network element, rather than a part of the local loop which must be made available on an unbundled basis.

Moreover, it is clear from the testimony of Mr. Deere that the "loop cross connect" would not be an unbundled network element under Southwestern Bell's proposal. Neither MCI nor AT&T would be permitted to install the cross connect, have access to the cross connect or be permitted to exercise any ownership interest over the cross connect. [Tr. p. 1189 line 1-8]. Although Mr. Deere acknowledged that an LSP should be able to provide any unbundled element itself without the intervention of Southwestern Bell [Tr. p. 1188 line 3-7], he states unequivocally that the new LSP could *not* provide the cross connect. [Tr. p. 1189 line 8-9].

5. **Should SWBT be required to offer sub-loop unbundling?**

Although the FCC declined to affirmatively order subloop unbundling, it specifically delegated that responsibility and consideration to the states. FCC Order, ¶ 391. The FCC noted that "[a]s a general matter, we believe that subloop unbundling could give competitors flexibility in deploying some portions of loop facilities, while relying on the incumbent LEC's facilities where convenient. For example, a competitor may seek to minimize its reliance on the LEC's facilities by combining its

own feeder plant with the incumbent LEC's distribution plant." *Id.*, ¶ 390. The FCC recognized that subloop unbundling "could have network efficiency advantages as well." *Id.*, ¶ 390 n. 842. The FCC further held that the term "technically feasible" as set forth in 47 U.S.C. 251(b)(3), does not include incumbent LEC arguments regarding insufficient space or logistical, rather than technical impediments to subloop unbundling. *Id.*, ¶ 390. Nevertheless, the FCC held that, "based on the current record evidence, the technical feasibility of subloop unbundling is best addressed at the state level on a case-by-case basis at this time." *Id.*, ¶ 391.

AT&T and MCI have requested subloop unbundling of the following elements: (1) Loop Distribution Plant, (2) the Loop Concentrator/Multiplexer, and (3) Loop Feeder. AT&T witness Daniel Keating described the technical feasibility of unbundling all of these subloop elements. [Exhibit 46, p. 10-11]. Both MCI and AT&T are seeking unbundling of the loop distribution element from the feeder portion of the cable at the Feeder/Distribution Interface (FDI). [Tr. 1120, line 11-15, Ex. 58 (Powers) p. 48]. The FDI is the unbundling point from which MCI and AT&T would access unbundled copper distribution facilities or unbundled feeder facilities.¹⁷ Consistent with the basic design intent of an FDI, that being a simple cross-connect device comprised mainly of screws and jumper wires, AT&T and MCI have proposed this interface as a natural unbundling point, intended for re-entry by technicians and for reconfigurations of plant.

Virtually all of SWBT's arguments against subloop unbundling allegedly involve technical feasibility issues. When pressed to specifically identify SWBT's technical feasibility concerns regarding subloop unbundling, Mr. Deere identified the following:

¹⁷ See Keating Appendix DCK-1, "Unbundled Loop Elements" Chart, and Appendix DCK-2, p. 5.

- (1) the inability to test subloops [Tr. 1122-24, 1193-94];
- (2) multiple people would be entering SWBT's facilities [Tr. 1124-27];
- (3) subloop unbundling has not been ordered by the FCC [Tr. 1190-92];
- (4) space considerations, e.g. at the FDI and aesthetic problems with multiple boxes [Tr. 1120-1122].

None of the issues raised by Mr. Deere meet the FCC's definition of technical infeasibility.

As noted by the FCC, logistical and insufficient space considerations, rather than technical impediments regarding subloop unbundling, "do not represent 'technical' considerations under our interpretation of the term 'technically feasible.'" FCC Order, ¶ 390. Moreover, the incumbent LEC's duty to provide access to unbundled elements includes "modifications to incumbent LEC facilities . . . to accommodate interconnection or access to network elements" and may be "feasible at a particular point even if such interconnection or access requires a novel use of, or some modification to, incumbent LEC equipment . . . (and) the incumbent must accept the novel use of, and modification to, its network facilities to accommodate the interconnector or to provide access to unbundled elements." *Id.*, ¶¶ 198, 202, respectively.

6. Should SWBT be required to offer dark fiber at this time?

AT&T and MCI are requesting dark fiber as an unbundled network element in and of itself, wherever it exists in SWBT's network, and not simply as an unbundled local loop. [Exhibit 39, p. 15, Ex. 58, p. 37]. No legitimate technical feasibility issue has been raised with respect to dark fiber by any witness. Access to dark fiber as an unbundled network element will hasten the deployment of facilities-based competitive networks by enabling new entrants to deploy SONET rings by connecting

its fiber facilities to the spare fiber capacity that exists in the incumbent LEC's local network. [Exhibit 39, p.14, Ex. 58, p. 38].¹⁸ Obtaining the rights-of-way, conduits, ducts and pole space necessary to establish fiber rings is a very expensive and time consuming endeavor which would increase the costs incurred by new entrants in deploying facilities-based solutions for customers. [Exhibit 39, p. 14-15]. Access to excess fiber capacity, which is currently sitting idle and not generating any revenue, presents no greater capacity concerns than the capacity issues associated with any of SWBT's network elements.

The primary issue for state commissions to determine with respect to further unbundling is whether it is technically feasible. Incumbent LECs must prove to state commissions by "clear and convincing evidence" that such further unbundling is not technically feasible. FCC Order, ¶ 203. If a LEC fails to meet its burden to establish that an element is technically infeasible, this creates a presumption in favor of requiring the incumbent LEC to provide the element. FCC Order, ¶ 283.¹⁹

¹⁸ See also, AT&T-2 (Keating) Appendix DCK-1, "An Alternative Connectivity Plan".

¹⁹ A state commission finding there is technical feasibility must require unbundling unless:

(1) the element is proprietary or contains proprietary information that would be revealed by unbundling, and the new entrant could offer the same proposed service using other nonproprietary unbundled elements in the incumbent LEC's network (*i.e.* it is not a defense in such cases to show that the new entrant could obtain the requested element elsewhere);
or

(2) the failure of the incumbent LEC to provide the element would not decrease the quality of and would not increase the financial or administrative cost of the proposed service, compared to providing the service over the incumbent LEC unbundled elements (*i.e.* it is not a defense that the new entrant could obtain the requested capability through a wholesale service from the incumbent LEC).

FCC Order, ¶¶ 283-288.

In its prefiled testimony, SWBT raised two objections to the unbundling of dark fiber. First, the FCC did not order such unbundling. Second, Southwestern Bell maintains that such unbundling is not technically feasible. With respect to Southwestern Bell's first argument, the FCC did not determine that dark fiber was not an unbundled network element, but simply declined to "address the unbundling of incumbent LECs' 'dark fiber'." FCC Order, ¶ 450.

Southwestern Bell's arguments regarding technical feasibility in fact have nothing to do with the ability of new LSPs to connect or use dark fiber. Southwestern Bell's technical feasibility objections are: (1) new entrants would use capacity SWBT had planned for its own use; and (2) SWBT would have no way of testing the dark fiber which was made available to new entrants and, therefore, could not guarantee that the same level of quality was being provided to the new entrant as SWBT provides to itself. [Tr. p. 1190]. On cross-examination, Mr. Deere testified that SWBT installs fiber based upon a twenty year forecast. [Tr. p.1115]. Given the fact that AT&T and MCI will be using capacity already planned into the Southwestern Bell network, capacity should not be an issue. Regarding SWBT's stated concern about untested fiber and inferior quality of service, Mr. Deere admitted that the new entrants could test the fiber. [Tr. 1193-1194].

More importantly, considerations such as capacity, space, and whether or not a new entrant can accept a lower level of quality than that which the incumbent provides to itself are not legitimate defenses or arguments upon which to find that unbundling of dark fiber is technically infeasible. As the record demonstrates, the unbundling of dark fiber is technically feasible and does not raise proprietary issues for incumbent LECs. Moreover, the failure to provide access to dark fiber would "impair" the ability of the new entrant to provide facilities-based service to the consumers of Missouri

and would substantially increase the cost of facilities-based competition. FCC Order, ¶ 285 (defining impairment standard).

In addition, since SWBT admitted that its network is engineered for at least a twenty year time frame, and since the advent of competition does not alter the future forecast of the finite number of projected ultimate end-use customers, the only difference with respect to dark fiber is which carrier gets to use that facility to provision service to the same total pool of anticipated customers. Indeed, SWBT criticizes the Hatfield Model because it fails to account for anticipated traffic volume *decreases*. Therefore, there is no legitimate basis for allowing SWBT to unilaterally use projected forecast capacity requirements in order to deny a new entrant access to dark fiber.²⁰

7. **Should the NID be unbundled beyond what the FCC required?**

The FCC already has determined that access to the NID should be offered as an unbundled network element. FCC Order, ¶ 392. The FCC allowed access to the NID via an arrangement whereby a competitor deploys its own NID and then connects its loops to the incumbent LEC's NID. However, the FCC specifically left it up to the states to determine "whether direct connection to the NID can be achieved in a technically feasible manner . . . [to allow] direct access to an incumbent LECs' NIDs." FCC Order, ¶ 396.

²⁰ The FCC has already addressed an incumbent LEC's ability to reserve space on facilities to meet future needs in the context of poles, conduits and rights-of-way. The FCC recognized that "[p]ermitting an incumbent LEC . . . to reserve space for local exchange service, to the detriment of a would-be entrant into the local exchange business, would favor the future needs of the incumbent LEC over the current needs of the new LEC." FCC Order, ¶ 1170. Such reservation of capacity is discriminatory. *Id.* Reservation of excess capacity in the context of dark fiber is no less discriminatory and should not be allowed.

The Federal Act obligates incumbent LECs to provide access to unbundled elements at "any technically feasible point."²¹ The FCC defined the "term 'technically feasible'" to refer "solely to technical or operational concerns, rather than economic, space or site considerations." FCC Order, ¶ 198. The FCC further concluded that the obligation to provide access to unbundled elements imposed by §§ 251(c)(2), (3) includes "*modifications* to incumbent LEC facilities to the extent necessary to accommodate interconnection or access to network elements." *Id.* (emphasis added). The FCC held that "*incumbent LECs must prove* to the appropriate state commission that a particular interconnection or access point is not technically feasible." *Id.* (emphasis added). Finally, the FCC concluded that access to a LEC network element may be "feasible at a particular point even if such interconnection or access requires a novel use of, or some modification to, incumbent LEC equipment . . . [and that] the incumbent must accept the novel use of, and modification to, its network facilities to accommodate the interconnector or to provide access to unbundled elements. FCC Order, ¶ 202. The FCC did find that legitimate threats to network reliability and security must be considered in evaluating technical feasibility issues, however, "*incumbent LECs must prove* to the state commission, with *clear and convincing evidence*, that specific and significant adverse impacts would result from the requested interconnection or access [to unbundled network elements]" FCC Order, ¶ 203 (emphasis added).

Both AT&T and MCI propose to install an their loop's on SWBT's NID if there is spare capacity. [Tr. 1200 line 6-9, Ex. 58]. Although SWBT's witness Mr. Deere originally raised several objections to making direct access to the NID available, none of these objections evidenced technical infeasibility. [Tr. p. 1197 line 1 through p.1200 line 12]. Mr. Deere presented no evidence, let alone

²¹ 47 U.S.C. § 251(c)(3)