

have that field filled in with either an "L" or an "R". In such cases, CLECs who had not upgraded to the new standard could not place any orders, not even for regular call waiting.

If left-handed call waiting is a service that customers want, then the CLECs have a strong incentive to upgrade to the versions of the OSS interfaces that allow it to order the service so they do not lose customers or potential customers who want left-handed call waiting. On the other hand, if an upgrade does not provide a CLEC with any desirable additional functionality, efficiency or the ability to order new services, then the CLEC will have no reason to incur the costs of upgrading to a newer version. A CLEC would not choose to pay for new software systems if it gains no benefit from the upgrade, and it is not reasonable for the Ameritech OSS upgrades to force it to incur such expenses unnecessarily.

Ameritech has expressed concerns that the CLECs should not have the ability to delay new upgrades for strategic reasons. This is unlikely. By delaying the implementation of an upgrade, the CLEC would be harming its ability to compete, but not Ameritech's, since Ameritech does not need the interfaces to use its own systems. This is doubly true since only objections from competitors using the OSS interfaces to serve actual customers, as opposed to for testing purposes, would have the power to stay the implementation schedule.

CLECs would only have an incentive to object to an upgrade if it were not backwards compatible, and if the cost of implementing the upgrade exceeded any possible benefit the CLEC could obtain from that upgrade. In such a case, the CLEC should be able to object, and the upgrade should be placed on hold. However, it is reasonable to expect that Ameritech Industry Information Services (AIIS), the business group that administers the interfaces, will continually talk to these CLECs, and be able to reach a compromise in most cases. AIIS representatives

have testified that that is their job. If a CLEC gains no benefit for the costs of upgrading, but Ameritech has its own reasons for desiring the upgrade, then Ameritech might have to absorb some of the CLEC's costs for implementing a non-backwards-compatible upgrade, or Ameritech may have to add some functions to the upgrade that the CLEC would value. Alternatively, if some CLECs benefit from an upgrade, but others do not, those benefiting may have to cover the costs of upgrading for those not benefiting. Such arrangements are routine in competitive marketplaces, where customers are free to choose not to buy upgrades. It is reasonable for this Commission to impose a substitute for this market mechanism and foreclose Ameritech's complete control over both the number and scheduling of non-backwards-compatible upgrades.

It is also possible, if highly unlikely, that a single CLEC (or small number of CLECs) would object to the release of an upgrade that the vast majority of users of that OSS interface want and would benefit from. In such cases, Ameritech could appeal that objection to the Commission. In discussions with Ameritech, staff has discussed several schedules under which such appeals, even if an initial staff determination were appealed to the Commission, would be handled rapidly enough to maintain the initial roll-out schedule. A reasonable roll-out schedule would only be delayed if the upgrade proved highly controversial, with enough users on each side to require a hearing before the Commission could issue its determination. Even in that event, the appeal may be concluded in time to meet the original roll-out schedule.

Ameritech has suggested that any upgrade which moves towards or implements some or all of a national standard be exempted from the objection process. Several CLECs have testified to the advantages that a single set of interfaces, written to national standards, would produce. Therefore, CLECs should have incentives to implement such upgrades, provided that they do not

implement only those portions of the national standard that provide benefits to Ameritech or to a particular subset of competitors. Likewise, competitors might object if Ameritech made the transition to national standards in a number of small, non-backwards compatible steps instead of a single upgrade, thereby requiring CLECs to incur the expense of rewriting, debugging and retraining many times. Objections would likely occur only if (1) Ameritech chooses not to make its upgrades towards national standard backwards compatible, and (2) the upgrades are released in an unreasonably large number of steps, or are designed to incorporate only those portions of the standards that benefit either Ameritech or a limited subgroup of the CLECs. These scenarios are unlikely, but CLECs should have a right to object under those circumstances. Moving toward a national standard would be a strong reason for the Commission to overrule objections. A CLEC objecting to such an upgrade would have a significant burden in showing that a delay in implementing the OSS upgrade is warranted. Therefore, the Commission does not find it reasonable for any non-backwards-compatible upgrades to be exempted from objection, even if they are intended to move towards a national standard.

In summary, if Ameritech plans an upgrade to an OSS interface which, when implemented, will prevent software written to previous specifications from functioning, then any user using the interface for processing live transactions (as opposed to testing) may object to the timing of the Ameritech implementation of the new release. If such an objection is filed, Ameritech's change management plan must state that Ameritech will delay roll-out of that release until the objection is lifted or acted upon by the Commission. Ameritech does have the opportunity to appeal any such objections to the Commission, which may approve roll-out on the original schedule, set another schedule or take other action, as appropriate. Ameritech may

address the process it prefers for handling objections and appeals to objections with its filing of a change management system. Upgrades which allow older software to continue to function without impairment are not subject to such delays, but the change management system should accommodate user input into the timing of such upgrades.

The Commission acknowledges that Ameritech is working very hard to accomplish the task of providing access to its OSS. This is a brand new undertaking for local exchange carriers. Ameritech has been proactive in developing and using industry standards. However, Ameritech must finish the task before the Commission can approve its Statement. Competing providers need assurances of the stability and readiness for use of Ameritech systems before investing in facilities and committing resources to applying these interfaces in practice. The Commission finds it will need to revisit the issue of whether Ameritech's OSS are tested and operational in any future filing of a Statement. Proper review has required a significant commitment of Commission resources. Ameritech has filed its complete Statement three times already while access to its OSS was not yet tested and operational. Accordingly, it is reasonable for the Commission to establish a threshold set of data that must be filed before Ameritech can file another Statement with the Commission.

Appendix B to this order enumerates the data that must be filed. Ameritech must gather all the information listed therein and submit it to the Commission at least 14 days prior to filing another Statement.

In addition, the Commission now finds it appropriate to establish a new order requirement regarding OSS. The first order's requirements stated, "Operations support systems and electronic interfaces must be tested and operational before tariffs are acceptable for filing." The

Commission finds the Telecommunications Act of 1996 and the rules issued thereunder provide sufficient criteria that must be met regarding OSS before a Statement can be approved without having OSS functionality as a prerequisite to tariff filing. Manual systems do exist to process orders and provide other functions to competing LECs. Having tariffs on file that state OSS access is part of the offering of interconnection is important, but not sufficient for approval of a Statement. The full availability of that access is the necessary prerequisite for approval.

Therefore it is reasonable for this Commission to establish a new requirement as follows:

Operations support systems must be tested and operational before a Statement will be approved.

3. *Performance benchmarks must be included in unbundled element offerings. Ameritech's offering must state that issues regarding type, standards, levels, and frequency of performance benchmarks may be referred to the Commission.*

In Ameritech's January 10, 1997, and March 3, 1997, filed Statements, Ameritech had added language to the Statement to address these items. Staff recommended in its comments on these filings that it is appropriate for this language to appear in the Statement rather than the tariff. Tariffs are not generally used to express actual performance standards or dispute processes. Adding these items to the Statement rather than the tariff is acceptable. The Statement does not, however, yet specify actual performance benchmarks or parity reports. Lack of finality on these items may not in and of itself be sufficient reason to reject a Statement, although significant inadequacies in performance benchmarks and parity reports would be sufficient. The statement under review is still too vague to meet the Commission's performance benchmark requirement.

4. *Ameritech's offering must state the maximum time interval for provision of service. At the request of any interconnecting party, that time interval may be appealed to the Commission.*

Staff did not find a specific reference to maximum time intervals in Ameritech's January 10, 1997, or March 3, 1997, Statements. Ameritech may consider it included in the reference to performance benchmarks discussed above. The tariffs should include a general reference to the maximum time interval for provision of a service. The specific time intervals need not be included in the tariffs, however, if they are not, they must be included in the Statement language.

5. *(a) Ameritech must revise its rates for unbundled elements to reflect the appropriate economic lives as set forth in the Final Order in docket 05-DT-101, dated September 15, 1995.*

In Ameritech's Statement refiled on January 10, 1997, Ameritech contested this requirement and instead filed an opinion by the law firm, Foley and Lardner, which was supported by a paper of an economist, Dr. Debra Aron. In this Commission's February 20, 1997, oral decision, the Commission upheld this order requirement. The March 3, 1997, refiled statement is in compliance with this order requirement.

The opinion filed by the law firm, Foley and Lardner, asserted the docket 05-DT-101 order had not taken into consideration the sea of changes in telecommunications markets and would, therefore, be improper and unreasonable to use in setting unbundled rates. It also cited the pricing standards, § 252(d)(A)(i), which states that cost is to be "determined without reference to a rate-of-return or other rate-based proceeding."

The order in docket 05-DT-101 was issued to comply with the requirements of s. 196.09(9), Wis. Stats. That statute was created by Wisconsin Act 496, the landmark legislation which refocused telecommunications regulation in Wisconsin to promote competition and opened telecommunications markets to competition. The intent of the Wisconsin Act closely matches that of the federal Act. The order in docket 05-DT-101 was based upon analysis of a telecommunications market that would be opened to competition. In s. 196.09(9)(a), Wis. Stats., the depreciation ranges are to be used by telecommunications utilities for public utility purposes. Therefore, reference to this section for analysis of depreciation lives used in a TELRIC study is not the equivalent to a reference to depreciation lives set in a rate-of-return proceeding. While this range of rates may be applied in rate-of-return situations, the range is applicable to all public utility purposes.

Dr. Aron asserted that the depreciation ranges determined in docket 05-DT-101 are inconsistent with the idealized assumptions of forward-looking cost models. She claims the range of depreciation rates were derived from historical observations of networks. However, the depreciation ranges in the order in docket 05-DT-101 do reflect changing technologies and obsolescence as they provide for substantially faster recovery than current retirements would dictate. Historical retirements average 5 percent or less of plant each year, while the depreciation ranges provide for recovery of up to 8.5 percent of the plant each year. The difference between the historical retirement rate and the 8.5 percent rate demonstrates anticipation of future obsolescence not evident in historical retirements trends. The range reflects economic life and not physical life. In addition, the models used do not, themselves, fully reflect economic costs as

they do not reflect annual valuation changes but instead develop the levelized cost over the economic life.

Dr. Aron contended the risk of stranded plant is not reflected. The models themselves reflect this risk in the use of fill factors. This Commission has already recognized and concluded in the first order in this docket "that fill factors that are lower than is feasible engineering-wise can still be reasonable now that facilities-based competition can exist and the uncertainty of the demand forecasts is greater." The Commission finds no inconsistency with the range of depreciation rates determined in docket 05-DT-101 and the idealized forward-looking cost models.

Wisconsin Act 496 also recognized the importance of responding to technological change in the provisions included in this section. Section 196.09(9)(a)(2), Wis. Stats., requires the depreciation ranges to be updated biennially, and provides a mechanism for earlier review upon request. Ameritech has not appealed the order in docket 05-DT-101 or requested an earlier review. Docket 05-DT-102 is currently open to evaluate revision of these depreciation ranges. Because of the dynamic nature of the ranges of depreciation rates set under s. 196.09(9), Wis. Stats., application of to the ranges set thereunder to TELRIC studies is reasonable and appropriate.

The Commission considered the overall depreciation rate when making reference to the order in docket 05-DT-101. The composite 8.5 percent depreciation rate is reasonable when the relative investment in long-lived assets like poles and wire and the relative investment in short-lived assets like electronics is considered. However, it is reasonable to allow Ameritech to propose revision of its rates for unbundled network elements to reflect changes in the range of

depreciation rates allowed in future proceedings. Such revision will be subject to Commission review and approval.

MCI asserted that Ameritech's adjustments, to meet the Commission's depreciation rate adjustment, did not lower prices for unbundled elements by as much as would be predicted by application of a sensitivity analysis supplied in its arbitration proceeding with Ameritech. The MCI arbitration case included numerous other adjustments including a cost of capital adjustment and capital structure adjustment which were not required in the first order in this docket. Staff sensitivity analysis shows the adjustment resulting from the depreciation requirement was within the magnitude expected.

MCI makes a generic appeal that cost studies should be further reviewed allowing more time and participation. The Commission finds that paper proceedings have been adequate and included sufficient opportunity to comment. The Commission determined cost studies were not being revisited in this proceeding.

5. *(b) No adjustment is required on this issue in the first order.*

5. *(c) Ameritech must revise all its rates for unbundled elements to reflect joint and common costs based on 1997 total joint and common costs divided by 1997 total demands.*

Ameritech's January 10, 1997, Statement did not comply with this requirement.

Ameritech had increased its markup for unbundled elements to include those retailing costs that would be avoided in the wholesale environment. The Commission determined that only those costs that would continue in a wholesale environment are appropriate to include in the markup on unbundled elements for joint and common costs.

MCI asserts that defects exist in Ameritech's forecast of joint and common costs and Ameritech has not properly allocated these costs to unbundled elements on a per unit basis. The first order explains that staff analysis of joint and common costs started with actual historical costs related to network services. These were adjusted for known changes based on the Arthur Andersen growth rate of 8 percent a year. This growth rate was deemed reasonable in light of the more complex business environment that will exist. That order also explained that staff raised concerns about the demand units over which costs were spread. Accordingly, the Commission required that the annual joint and common costs were to be allocated over all demands. In practice the TELRIC cost was summed for all demand units of both bundled and unbundled services and was compared to the annual joint and common costs to determine the markup percent. The Commission reaffirms its first order requirements regarding the amount and allocation of joint and common cost.

Ameritech's March 3, 1997, Statement and associated tariffs now comply with this requirement. The markup on TELRIC is now 23.4 percent and is applied uniformly. The first order indicated, "Staff estimated the effect of this adjustment will be to reduce Ameritech's proposed mark-up on TELRIC from 27 to 22 percent." With the further identification of costs that will continue in the wholesale environment as is discussed under "Resale" below, the Commission finds that the 23.4 percent markup is reasonable.

6. *(a) Ameritech must remove the differential pricing of Zone A, Zone B, and Zone C and price all unbundled loops on a geographically uniform basis, unless Ameritech proposes an economically rational system of deaveraged prices, together with full technical, economic, and cost support.*

In Ameritech's January 10, 1997, filing did not comply with this requirement. Ameritech filed an average rate that was higher than the highest rate of Zone C.

Ameritech's March 3, 1997, filing complies with this requirement. Ameritech has computed average loops rates based on relative access lines in each former Zone.

Time Warner and MCI assert that a statewide average loop rate is not based on cost and proper zone rates should be established. The Commission reaffirms its decision stated in its first order that Ameritech's zone pricing scheme may not sufficiently reflect cost variability factors for loops. Maintaining a statewide average loop rate is more reasonable in the short time period that it is likely to be in effect, than to adopt a flawed zone pricing scheme in conjunction with average-priced retail lines when the combination has been shown to have unreasonable price squeezing effects. Under its election to be a price regulated utility, Ameritech's retail prices are only frozen by statute until September 1997. Ameritech may request approval for deaveraging both retail line and wholesale loop rates on a common basis at that time.

6. *(b) No adjustment is required on this issue in the first order.*

6. *(c) Ameritech must include in the price of a port only those features that appear on a typical port for the service line classification, including separate residence and business ports.*

Ameritech's January 10, 1997, filing included separate prices for unbundled residence and business ports. However, Ameritech had refused staff access to cost support information stating that the material was proprietary to Bellcore. In the Commission's February 20, 1997, oral decision, the Commission required Ameritech to make arrangements for staff to review cost support for unbundled ports. Contracting with third parties does not relieve Ameritech of its

obligation to provide cost support for Commission review. Ameritech did provide such access, however, review of this requirement is not complete. Therefore, the cost basis for Ameritech's price differentiation by line class for unbundled ports will be an outstanding issue when Ameritech refiles its Statement.

iii. Nondiscriminatory Access to Poles, Ducts, Conduits, and Rights-of-Way

1. *All terms and conditions related to rights-of-way must be included in interconnection tariffs.*
2. *Ameritech's offering must be revised to make it clear access will be provided to rights-of-way held by ownership of property as well as rights-of-way acquired from other property owners.*
3. *While Ameritech must provide "pathways" through its manholes, etc., to allow access to its rights-of-way, the existence of such pathways does not imply that interconnection in such "pathways" is automatically feasible.*
4. *Ameritech must revise its offering to state that if access is not granted within 45 days, then the utility will confirm the denial in writing including all relevant evidence and how such evidence or information relate to a denial in conformance with the Federal rules.*
5. *No adjustment is required on this issue in the first order.*
6. *No adjustment is required on this issue in the first order.*
7. *No adjustment is required on this issue in the first order.*

Ameritech's January 10, 1997, and March 3, 1997, Statements included its "Pole Attachments and Conduit Occupancy Accommodations tariff" which contains terms and conditions to meet all of the four required actions.

iv. Unbundled Local Loop Transmission

The Commission first order indicated that all concerns related to unbundled local loop transmission were addressed elsewhere in the order. For example, the discussion of nondiscriminatory access to unbundled elements addressed all pricing issues.

v. & vi. Unbundled Local Transport and Local Switching

The discussion below combines discussion of both unbundled local transport and unbundled local switching as these two elements are inextricably combined in Ameritech's Statement. (Ameritech requires the purchase of certain transport elements in order to purchase unbundled local switching instead of existing retail access services.) Quotations from relevant statutes and regulations are given herein to provide a legal framework for the discussion in a manner similar to the presentation in the first order.

The Commission's first order indicated that unbundled local transport and unbundled local switching were addressed elsewhere in the order, however, the Commission also identified certain unbundled element issues about which it would be willing to receive additional information. Those issues were (with the heading under which they appear in the discussion in this order shown in parenthesis): collocation of remote switching modules (same heading), availability of dark fiber (dark fiber); shared interoffice transport (common transport), and six possible deficiencies in the local switching element. Those six items were: recognition of the provider of exchange access (Provider of exchange access service), provision of customized routing (Customized routing functions), restriction of use for terminating services (Provider of exchange access service), availability of vertical features (Vertical features), the usage

development and implementation charge (same heading) and the viability of Ameritech's offering. This order provides decisions on all of these additional items except the viability of Ameritech's offering.

References for Unbundled Local Transport

Relevant Provisions of the Act

§ 271(c)(2)(B) COMPETITIVE CHECKLIST

(v) Local transport from the trunk side of a wireline local exchange carrier switch unbundled from switching or other services.

§ 251 (c)(3) Unbundled access.--The duty to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory in accordance with the terms and conditions of the agreement and the requirements of this section and section 252. An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.

Selected sections of FCC rules (not under stay)

§ 51.307 Duty to provide access on an unbundled basis to network elements

(c) An incumbent LEC shall provide a requesting telecommunications carrier access to an unbundled network element, along with all of the unbundled network element's features, functions, and capabilities, in a manner that allows the requesting telecommunications carrier to provide any telecommunications service that can be offered by means of that network element.

(d) An incumbent LEC shall provide a requesting telecommunications carrier access to facility or functionality of a requested network element separate from access to the facility or functionality of other network elements, for a separate charge.

§ 51.309 Use of unbundled network elements.

(b) A telecommunications carrier purchasing access to an unbundled network element may use such network element to provide exchange access services to itself in order to provide interexchange services to subscribers.

(c) A telecommunications carrier purchasing access to an unbundled network facility is entitled to exclusive use of that facility for a period of time, or when purchasing access to a feature, function or capability of a facility, a telecommunications carrier is entitled to use of that feature, function, or capability for a period of time. ...

§ 51.319 Specific unbundling requirements

(d) Interoffice Transmission Facilities

(1) Interoffice transmission facilities are defined as incumbent LEC transmission facilities dedicated to a particular customer or carrier, or shared by more than one customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers.

(2) The incumbent LEC shall:

(i) provide a requesting telecommunications carrier exclusive use of interoffice transmission facilities dedicated to a particular customer or carrier, or use of the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier;

(ii) provide all technically feasible transmission facilities, features, functions, and capabilities that the requesting telecommunications carrier could use to provide telecommunications services;

(iii) permit, to the extent technically feasible, a requesting telecommunications carrier to connect such interoffice facilities to equipment designated by the requesting telecommunications carrier, including, but not limited to, the requesting carrier's collocated facilities; and

(iv) permit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's digital cross-connect systems in the same manner that the incumbent LEC provides such functionality to interexchange carriers;

Selected descriptions in the body of 96-325, FCC Interconnection Order in CC Docket No. 96-98:

412. We define the local switching element to encompass line-side and trunk-side facilities plus the features, functions, and capabilities of the switch. The line-side facilities include the connection between a loop termination at, for example, a main distribution frame (MDF), and a switch line card. Trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross connect panel and a trunk card. The "features,

functions, and capabilities of the switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks. ...

440. We require incumbent LECs to provide unbundled access to shared transmission facilities between end offices and the tandem switch. Further, incumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between such offices and those of competing carriers. ...

441. The ability of new entrants to purchase the interoffice facilities we have identified will increase the speed with which competitors enter the market. By unbundling various dedicated and shared interoffice facilities, a new entrant can purchase all interoffice facilities on an unbundled basis as part of a competing local network, or it can combine its own interoffice facilities with those of the incumbent LEC. The opportunity to purchase unbundled interoffice transport will decrease the cost of entry compared to the much higher cost that would be incurred by an entrant that had to construct all of its own facilities. An efficient new entrant might not be able to compete if it were required to build interoffice facilities where it would be more efficient to use the incumbent LEC's facilities. ...

447. Section 251(d)(2)(B) requires the Commission to consider whether the failure to provide access to an unbundled element "would impair the ability of the telecommunications carrier seeking access to provide the services it seeks to offer." We have interpreted the term "impair" to mean either increased cost or decreased service quality that would result from using network elements other than the one sought. ...

450. ... We also decline at this time to address the unbundling of incumbents LECs "dark fiber." Parties that address the issue do not provide us with information on whether dark fiber qualifies as a network element under sections 251(c)(3) and 251(d)(2). Therefore, we lack a sufficient record on which to decide this issue. We will continue to review and revise our rules in this area as necessary.

References for Unbundled Local Switching

Relevant Provisions of the Act

§ 271(c)(2)(B) COMPETITIVE CHECKLIST

(vi) Local switching unbundled from transport, local loop transmission, or other services.

§ 251 (c)(3) Unbundled access. (See citation above.)

§ 251(c)(6) Collocation--The duty to provide, on rates, terms, and conditions, that are just and reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier....

Selected sections of FCC rules (not under stay)

§ 51.307 Duty to provide access on an unbundled basis to network elements. (See citation above.)

§ 51.309 Use of unbundled network elements. (See citation above.)

§ 51.319 Specific unbundling requirements

(c) Switching Capability

(1) Local Switching Capability.

(i) The local switching capability network element is defined as:

(A) line-side facilities, which include, but are not limited to, the connection between a loop termination at a main distribution frame and a switch line card;

(B) trunk-side facilities, which include, but are not limited to, the connection between trunk termination at a trunk-side cross-connect panel and a switch trunk card; and

(C) all features, functions, and capabilities of the switch, which include but are not limited to:

(1) the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, and trunks to trunks, as well as the same basic capabilities made available to the incumbent LEC's customers, such as a telephone number, white page listing, and dial tone; and

(2) all other features that the switch is capable of providing, including but not limited to custom calling, custom local area signaling service features, and CENTREX, as well as any technically feasible customized routing functions provided by the switch.

Selected sections of FCC rules (stayed pricing rule)

§ 51.515 Application of access charges

(a) Neither the interstate access charges described in part 69 nor comparable intrastate access charges shall be assessed by an incumbent LEC on purchasers of elements that offer telephone exchange or exchange access services.

Selected descriptions in the body of 96-325 FCC Interconnection Order in CC docket No. 96-98:

356. We confirm our tentative conclusion in the NPRM that section 251(c)(3) permits interexchange carriers and all other requesting carriers, to purchase unbundled elements for the purposes of offering exchange access services, or for the purpose of providing exchange access services to themselves in order to provide interexchange services to consumers. Although we conclude below that we have discretion under the 1934 Act, as amended by the 1996 Act, to adopt a limited, transitional plan to address public policy concerns raised by the bypass of access charges via unbundled elements, we believe that our interpretation of section 251(c)(3) in the NPRM, is compelled by the plain language of the 1996 Act. As we observed in the NPRM, Section 251(c)(3) provides that requesting telecommunications carriers may seek access to unbundled elements to provide a "telecommunications service" and exchange access and interexchange services are telecommunications services. Moreover, section 251(c)(3) does not impose restrictions on the ability of requesting carriers to "combine such elements in order to provide such telecommunication service(s)." Thus, we find that there is no statutory basis upon which we could reach a different conclusion for the long term.

...

412. We define the local switching element to encompass line-side and trunk-side facilities plus the features, functions, and capabilities of the switch. The line-side facilities include the connection between a loop termination at, for example, a main distribution frame (MDF), and a switch line card. Trunk-side facilities include the connection between, for example, trunk termination at a trunk-side cross connect panel and a trunk card. The "features, functions, and capabilities of the switch include the basic switching function of connecting lines to lines, lines to trunks, trunks to lines, trunks to trunks. It also includes the same basic capabilities that are available to the incumbent LEC's customers, such as telephone number, directory listing, dial tone, signaling, and access to 911, operator services, and directory assistance. In addition, the local switching element includes all vertical features that the switch is capable of providing, including custom calling, CLASS features, and CENTREX, as well as any technically feasible customized routing functions. Thus, when a requesting carrier purchases the local switching element, it obtains all switching features in a single element on a per-line basis. A requesting carrier will deploy individual vertical features on its customers' lines by designating, via an electronic ordering interface, which features the incumbent LEC is to activate for particular customer lines.

...

579. We believe that section 251(c)(6) generally requires that incumbent LECs permit the collocation of equipment used for interconnection or access to unbundled network elements. Although the term "necessary," read most strictly, could be interpreted to mean "indispensable" we conclude that for purposes of section 251(c)(6) "necessary" does not mean "indispensable" but rather "used" or "useful." ... Even if the

collocator could use other equipment to perform a similar function, the specified equipment may still be "necessary" for interconnection or access to unbundled network elements under section 251(c)(6). We can easily imagine circumstances, for instance, in which alternative equipment would perform the same function, but with less efficiency or at a greater cost. . . .

...
581. At this time, we do not impose a general requirement that switching equipment be collocated since it does not appear that it is used for the actual interconnection or access to unbundled network elements. We recognize, however, that modern technology has tended to blur the line between switching equipment and multiplexing equipment, which we permit to be collocated. We expect, in situations where the functionality of a piece of equipment is in dispute, that state commissions will determine whether the equipment at issue is actually used for interconnection or access to unbundled elements. We also reserve the right to reexamine this issue at a later date if it appears that such action would further achievement of the 1996 Act's procompetitive goals. . . .

Notice of Proposed Rulemaking CC Docket No. 96-262, Access Charge Reform, paragraph 170

...Unbundled elements provide a ubiquitous substitute for access service. Where access charges exceed forward-looking economic cost (due to the structure or level of access being inefficient), IXCs have an artificial incentive to 'win' the customer and provide both local and toll service using unbundled elements. We expect that availability of unbundled elements at TELRIC prices as a substitute for access charges will ultimately require the LEC to set its charges in an economically efficient manner....

Selected sections of the FCC Order on Reconsideration, adopted September 27, 1997 (pricing rules are stayed but interconnection rules are not stayed)

1. ... Pursuant to section 1.08 of the Commission's rules, we here reconsider on our own motion two specific issues addressed in the First Report and Order. We expect that parties may raise other issues in petitions for reconsideration. First, we establish a flat-rated default proxy range for the non-traffic sensitive costs of basic residential and business line ports associated with the unbundled local switching element. ... Second, we clarify that because the First Report and Order concluded that the local switching element includes dedicated facilities, the requesting carrier is thereby effectively precluded from using unbundled switching to substitute for switched access services where the loop is used to provide both exchange access to the requesting carrier and local service by the incumbent LEC. ...

2. Background ... We concluded in the First Report and Order that "A combination of a flat-rated charge for line ports, which are dedicated to a single new entrant and either a flat-rated or per-minute charge for the switching matrix and for trunk ports which constitute shared facilities, best reflects the way costs for unbundled local switching are incurred and is therefore reasonable." We remain convinced that the pricing methodology and rate structures established

in the First Report and Order are correct and should be implemented by state commissions in arbitration proceedings.

...

4. We now reconsider on our own motion a limited aspect of that decision and establish a default proxy range for basic residential and business line port costs of the local switching elements. We see no reason at this time to revise the default proxy range for unbundled local switching that will apply to the traffic-sensitive element, including the switching matrix, the functionalities used to provide vertical features and the trunk ports. Moreover, we find no basis at this time for modifying the default proxy range for the termination of calls.

...

6. The data support the default proxy we established for the termination portion of transport and termination ... because we found that the "additional cost" to the incumbent LEC of terminating a call that originates on another network includes only the usage sensitive costs, including the switching matrix and the trunk ports, but not the non-traffic-sensitive costs of local loops and line ports associated with the local loops. ...

...

11. In section V.I.2. of the First Report and Order, we stated that "when a requesting carrier purchases the unbundled local switching element, it obtains all switching features in a single element on a per-line basis." The unbundled switching element, as defined in the First Report and Order, includes the line card, which is often dedicated to a particular customer. Thus, a carrier that purchases the unbundled local switching element to serve an end user effectively obtains the exclusive right to provide all features, functions, and capabilities of the switch, including switching for exchange access and local exchange service for that end user. A practical consequence of this determination is that the carrier that purchases the local switching element is likely to provide all available services requested by the customer served by that switching element, including switching for local exchange and exchange access. We further note that the pricing methodology set forth in the First Report and Order for the unbundled switching element, included cost of components (e.g., line ports) necessary to provide switching for both local exchange and exchange access services, and contemplated that the carrier purchasing the unbundled switch would provide switching for both local exchange and exchange access services. (references to paragraphs 412, 414, 423 of First Report and Order)

...

13. We thus make clear that, as a practical matter, a carrier that purchases an unbundled switching element will not be able to provide solely interexchange service or solely access service to an interexchange carrier. A requesting carrier that purchases an unbundled local switching element for an end user may not use that switching element to provide interexchange service to end users for whom that requesting carrier does not also provide local exchange service. Using unbundled switching elements in such a manner would be inconsistent with our statement in the First Report and Order that "a competing provider orders the unbundled basic switching element for a particular customer line..." (references paragraph 414 of First Report and Order)

1. Dark fiber

The FCC in its Interconnection Order declined to address the issue of dark fiber as it did not have sufficient information to determine whether dark fiber qualifies as a network element. (para. 450) In addition, the Act defines a network element to be a facility or equipment used in the provision of telephone exchange access or exchange access. The Commission considered several factors in arriving at its decision to require dark fiber to be offered on an unbundled basis. Ameritech asserts that the lack of electronics means that dark fiber is not used in providing telecommunications service. However, an analogy can be made to local loops which are in place but are not yet hooked up to serve a customer premises; these are considered to be available in providing telecommunications services. Dark fiber is capacity to accommodate expected growth in the same sense that extra loops are capacity to accommodate expected growth. Accordingly, dark fiber is used in the provision of telecommunications service and therefore is a network element and should be unbundled and made available.

In its March 3, 1997, Statement, Ameritech did not offer dark fiber. Ameritech revised its filing on March 26, 1997, to offer dark fiber and provided a price list for such dark fiber. AT&T and MCI allege the offering is discriminatory and raise concerns regarding the limitations Ameritech places on when it will offer dark fiber and whether or not it will continue to offer dark fiber. Further concerns were expressed by the parties regarding the definition of critical terms and the prices at which dark fiber is offered. These allegations and concerns taken together are convincing that Ameritech's offering of dark fiber is inadequate to qualify as the offering of an unbundled element. While the tariff will remain in place as an offering, a future filing of the Statement should bolster the dependability and predictability of the offering. Further,

Ameritech's pricing of dark fiber has not been adequately reviewed thus far in this proceeding, so it will need to be addressed in a future filing.

2. Common transport

This Commission has determined that Ameritech's offering of unbundled local switching and unbundled local transport does not provide the degree of unbundling that the FCC Interconnection Order describes and requires in its rules. The degree of unbundling required is the functionality of interoffice transport on either a per customer line basis or per minute of use basis. (47 CFR 51.307(d), and Interconnection Order, paragraphs 412, 414, and 423, customer line basis; paragraphs 258 and 428, minute of use basis). Ameritech's proposal also requires that competitors specify the routing code and route for each common transport link. The limited degree of unbundling and requirements that the routes be defined in advance result in unreasonable restrictions on the combination of unbundled elements in violation of § 251(c)(3) and does not provide transport unbundled from local switching as required by checklist requirement (v). The Commission requires that Ameritech offer common transport to correct these deficiencies before a Statement will be approved. The Commission definition of common transport is given below.

In Ameritech's March 3, 1997, Statement, the offerings require that dedicated trunk ports sized by DS-1, DS-3, OC-3 to OC-48 be purchased and combined with dedicated transport sold in mileage increments of the same size denominations and tandem transport termination of the same size denominations to provide unbundled transport between Ameritech's central office switches and Ameritech's tandem switches (consisting of a path and terminations on either end,

local office and tandem). Ameritech's March 3, 1997, filing also included a "shared company transport" in which the mileage rate elements could be purchased in denominations of 1/24 of a DS-1, but the termination facilities are offered only in the above stated full denominations or, when on a minute-of-use basis, based on Ameritech's existing access rates. Ameritech later revised the local office trunk ports to be offered in 1/24 of a DS-1 size denomination, but still required the tandem transport termination to be sold in the full size denominations stated.

Ameritech's offering of unbundled local switching does not provide unbundled switching on a per customer line basis as the FCC Interconnection Order describes at 412, 414, and 423 or on a minute of use basis as described at paragraphs 258 and 428. The FCC interconnection order defines the unbundled switching element as the line card (line-side port), the switching matrix, and the trunk ports (transport-side port). (at para. 412) The degree of unbundling is described in the following statement, "Thus, when a requesting carrier purchases the unbundled local switching element, it obtains all switching features in a single element on a per-line basis. (at para. 412) Paragraph 414 describes a line as a "particular customer line." Ameritech's March 3, 1997, Statement, included a line-side port on a per customer basis, and the switching matrix on a minute of use basis, but included the transport-side port only on a DS-1, DS-3, OC-3 to OC-48 basis.

A DS-1 port consists of 24 channels. A single transport channel can serve many voice lines. This is because all voice lines are not in simultaneous use for a full hour during the system busy hour. Telecommunications systems are designed to have many voice lines served by a single transport channel based on expected calling patterns. If too many voice lines feed into a

single transport channel, such that a busy hour call cannot be handled, the end user receives a fast busy signal for such a blocked call.

Ameritech on March 19, 1997, revised its offering to include a fractional DS-1 trunk port, with the DS-1 port cost divided into 24 line channels. This offering is not on a per customer-line basis. At a minimum, to reflect a per customer-line basis, the cost of the 1/24 of a DS-1 port should be divided over the number of customer lines a single channel of the DS-1 port is generally engineered to serve. To provide a transport-side port on a per customer-line basis with the same efficiency of Ameritech's network, the costs of a single channel of the average size port should be divided over the average number of customer lines a single channel can service.

Ameritech's minute-of-use offering does not provide unbundled transport either. Ameritech's minute of use offering is an access retail service. The pricing of access does not comply with the pricing rules, § 252(d) of the Act and, therefore, cannot fulfill the requirement to provide unbundled transport.

In the April 2 and 3, 1997, hearings, Ameritech provided explanations as to how it felt its offering met the requirement of providing unbundled transport. Ameritech identifies a network element, as defined in the Act, as "facilities or equipment" and therefore concludes that a requesting carrier must designate a discrete facility or equipment, in advance, for a period of time. It asserts that a carrier cannot purchase undifferentiated access to network capabilities and claims undifferentiated access is a service and not a network element. In fact, what Ameritech is offering is only the least efficient facilities (DS-1) on a per channel basis. More efficient facilities like DS-3 or OC-Xs are not even sold on a fractional basis let alone a customer basis. With a discrete facility offering, competing carriers should be able to specify DS-3 service in a

1/674 fraction and the like for the various OC facilities. Again, a per-customer offering would provide even smaller increments of each of these discrete facilities than would a per-channel offering.

The higher denominations of transport provide economies of scale. For example 1/24 of the DS-1 mileage rate is \$.65 (\$15.69/24) while 1/672 of the DS-3 mileage rate is \$.05 (\$36.20/672). Ameritech does not use a discrete facility requirement, it uses a requirement that only DS-1 facilities will be provided on a fractional basis.

In fact, for other than the DS-1 facilities, Ameritech only offers the same size denominations of transport that a competing provider would need to buy if it were seeking to compete using its own facilities instead of unbundled elements. The terms DS-1, DS-3, and various OC-Xs refer to sizes of complete facilities. In effect, competing carriers are expected to build their own networks; only their networks would be built from buying facilities-sized unbundled elements instead of just buying facilities.

Multiple separate networks will not be able to achieve the same efficiencies as Ameritech's network. Traffic that could be concentrated on a DS-3 facility would instead be transported over multiple DS-1 facilities and the like for OC facilities. This is not consistent with the FCC descriptions in the Interconnection Order. Paragraph 441 states, "An efficient new entrant might not be able to compete if it were required to build interoffice facilities where it would be more efficient to use the incumbent LEC's facilities." As will be described below, the FCC recognized this concern and required access to the functionality of interoffice transport. Using this terminology preserves the efficiency of the interoffice transport network as will be described in greater detail below.