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OFFICE OF THE SECRETARY

September 2, 1999

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VIA HAND DELIVERY

Magalie R. Salas, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Notice of *Ex Parte* Presentations by the Association for Local Telecommunications Services

***Implementation of the Local Competition Provisions in the Telecommunications Act of 1996* -- CC Docket No. 96-98**

Dear Ms. Salas:

Pursuant to Sections 1.1206(b)(1) and (2) of the Commission's Rules, the Association for Local Telecommunications Services ("ALTS"), by its attorneys, submits this notice of an oral *ex parte* presentation made, and written *ex parte* materials distributed, in the above-captioned docketed proceeding on September 1, 1999. The *ex parte* presentation was made during a meeting with Dorothy Attwood of the Chairman's Office. The presentation was made by Jonathan Askin, Vice President, Law, of ALTS; and by Jonathan Canis and John Heitmann of Kelley Drye & Warren LLP. Copies of the written materials distributed at the meetings are attached hereto.

During the presentations, the parties discussed positions set forth in their comments, reply comments and *ex parte* presentations filed in the Unbundled Network Elements ("UNE") Remand phase of the above-captioned proceeding. The focus of the discussion was on the need for unbundled extended links and recent *ex parte* presentations made by various ILECs and IXCs regarding UNE use restrictions.

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Pursuant to Sections 1.1206(b)(1) and (2), an original and two copies of this *ex parte* notification (with attachments) are provided for inclusion in the public record of the above-referenced proceeding. Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

John J. Heitmann

cc: Dorothy Attwood, Office of Chairman Kennard
International Transcription Services

ALTS

Ex Parte Presentation

Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 (UNE Remand)

CC Docket No. 96-98

Jonathan Askin
Vice President - Law – ALTS

Jonathan Canis, John Heitmann
Kelley Drye & Warren LLP

September 1, 1999

National Unbundling Standards

- **National, uniform, minimum unbundling standards – including a National List of UNEs – remain essential to the development of local competition.**
  - It is eminently reasonable – particularly in light of the fact that local competition is merely in its nascent stage – for the Commission to apply Section 251(d)(2)'s "necessary" and "impair" standards on a national basis.
  - Premature movement away from a national list of unbundling requirements dramatically would reduce the pace, scale and scope of local competition.
  - A state-by-state approach to removing UNEs from the national list would eliminate the benefits of having a national list in the first place.
  - The Commission should continue to allow state commissions to impose *additional* unbundling requirements pursuant to Section 251(d)(2).
  - Removal of UNEs from the national list should be accomplished through a Commission-conducted biennial review process.
  - All UNEs made available in this proceeding should be made available through the end of the first biennial review process.

Proprietary, Necessary and Impair

- **The Commission should incorporate a "materiality" standard to give meaning to the unbundling standards of Section 251(d)(2).**
  - The ILECs' "any potential substitute," "essential facilities," and "too much unbundling" arguments are unfounded.
  - Proprietary interests of third parties do not mitigate ILEC unbundling obligations.
  - The Commission is not limited in the factors it should consider in applying the necessary and impair standards – these factors should include functionality, quality, reliability, cost, scope of availability, and time-to-market.
- **The Section 251(d)(2) standards must be interpreted in a way that ensures the viability of the UNE method of entry.**
  - Before eliminating an unbundling obligation, the Commission must determine whether a fully functioning, competitive, wholesale market exists for the requested network element – automatic sunsets are inconsistent with the Act.
  - Interchangeable substitutes must be available and virtually undetectable by consumers – resale and special access facilities are not substitutes for UNEs.

The National List

- **At a minimum, the Commission's National List of UNEs should include the following network elements.**
  - **Loops.** No wholesale market – ILEC ubiquity compels unbundling.
  - **NIDs.** ILEC scope of availability and time-to-market advantages remain strong.
  - **Dedicated Transport.** Alternatives do not go where competitors need them to go.
  - **Signaling and Call-Related Databases.** Wholesale signaling market has not developed sufficiently.
  - **OSS.** The only alternative is massive ILEC restructuring and divestiture.
  - **Extended Link.** Needed for widespread voice and advanced services competition.
  - **IntraMTE Wiring.** Needed to eliminate barriers to residential competition.
  - **Multiplexing/Aggregation/Routing.** Needed to make combinations work.
- **Rational application of the Section 251(d)(2) standards does not yield the results suggested by the ILECs.**

Loop UNE

- **All loops – including those serving business customers in dense wire centers – meet the Section 251(d)(2) standard for unbundling.**
  - The record supports defining the loop UNE to include cross-connects and a CLEC-designated interconnection point.
  - ILECs must unbundle "clean copper," high capacity, and "dark fiber" loops.
  - Where IDLCs or similar intra-loop facilities are deployed, ILECs must provide unbundled access to either (i) alternative or "spare" copper that is equal in quality and price, or (ii) the IDLC-provisioned loop equivalent with intra-loop electronics incorporated.
  - The record supports elevation of subloop unbundling to a national standard.
- **The ILECs' proposed loop unbundling rules are based on outcomes that bear no relation to the statutory standard or the goals of the Act.**
  - The combination of a dense wire center and a collocated CLEC does not eliminate the need for unbundling – it underscores it. CLECs collocate to gain access to loops and other UNEs – UNEs drive local competition.

Dedicated Transport UNE

- **All types of dedicated transport meet the Section 251(d)(2) unbundling standard.**
  - ILECS must unbundle high capacity and "dark fiber" transport and "entrance facilities" connecting ILEC end offices with CLEC points of presence.
  - A wholesale alternative network element market has yet to develop sufficiently in any geographic area or for any segment or type of dedicated transport.
- **The ILECs' proposed transport unbundling sunsets are based on outcomes that bear no relation to the statutory standard or the goals of the Act.**
  - The combination of a dense wire center and a collocated CLEC does not eliminate the need for unbundling.
  - Deployment of competitive networks does not indicate that alternatives to ILEC transport UNEs are available on a wholesale basis.
  - The refusal by GTE and others to provide unbundled access to "entrance facilities" and ILEC provisioning failures have forced the uneconomic use of special access and underscore the need for explicit Commission rules and certain enforcement.

Signaling/Call-Related Databases UNE

- **Signaling/call-related databases meet the Section 251(d)(2) unbundling standard.**
  - Congress and the Commission have recognized that facilities-based competition depends on unbundled access to ILEC signaling and call-related databases.
  - There are no substitutes for ILEC call-related databases and SMS.
- **Premature removal of the SS7 signaling UNE would disrupt competition (and end user service), and would stall the development of wholesale alternatives to ILEC signaling UNEs.**
  - A fully developed wholesale market for signaling/call-related databases does not yet exist.
  - Alternative providers of signaling do not offer the reliability, functionality or ubiquity of the ILECs' SS7 networks.
  - ILEC efforts to tie the signaling UNE to the switching UNE must be rejected – ALTS members who have deployed their own switches, in most cases, have not deployed their own regional or national signaling networks.

Extended Link UNE

- **Extended link meets the Section 251(d)(2) unbundling standard.**
  - Extended link is a dedicated transmission path connecting the end user with the CLEC voice or data switch at a CLEC point of presence. Extended links may be composed of intraMTE wiring, NID, loop, multiplexing and dedicated transport (including electronics and cross-connects).
  - Definition of an extended link UNE would accelerate competitive deployment of traditional voice and advanced services by maximizing the number of customers that can be reached by CLEC voice and data switches and through each collocation arrangement.
  - ILECs should be required to offer extended links for all loop and transport types.
- **CLECs must be able to use extended links in the same ways that ILECs use them.**
  - Restrictions based on the type or jurisdiction of traffic should be prohibited.
  - CLECs should be able to convert special access links to extended link UNEs at no charge.

IntraMTE Wiring UNE

- **IntraMTE wiring meets the Section 251(d)(2) unbundling standard.**
  - ILECs have used their control of inside wire in multi-tenant environments to stymie CLEC entry and to deny consumers a choice in service providers.
  - Delay serves only to preserve ILEC monopolies – the Commission should define an intraMTE wiring UNE based on the record in this proceeding.
  - Building access issues, as well as the cost and complexity of rewiring existing buildings, can add thousands of dollars to the cost of serving customers in MTEs.
- **Several ILECs provide access to intraMTE wiring. To facilitate residential and small business competition, this ILEC "best practice" should be a national standard.**
  - ILECs must post website reports indicating the buildings in which they own intraMTE wiring. Access to unbundled intraMTE wiring must be without the discriminatory costs and delays caused by ILEC-imposed requirements that their own personnel be present.
- **ILEC-owned intraMTE wiring, such as vertical and horizontal riser cables, is a "network element" – no competitive wholesale market exists for it.**

Multiplexing/Aggregation/Routing UNE

- **Multiplexing/aggregation/routing meets the Section 251(d)(2) unbundling standard.**
  - The record contains substantial support for Commission action to ensure that multiplexing, aggregation and routing functionalities, essential for the interconnection and combination of network elements, are made available by ILECs as UNEs at TELRIC-based rates.
- **To compete effectively, CLECs must be able to use multiplexing/aggregation/routing functionalities in the same ways that ILECs use them.**
  - Competitive wholesale alternatives to an ILEC multiplexing/aggregation/routing UNE largely do not exist.
  - In most cases, CLECs will not have the preexisting customer base necessary to make self-provisioning a cost-effective alternative to ILEC unbundling.
- **The Commission may choose to define a separate multiplexing/aggregation/routing UNE, or it may require that equivalent functionality be provided as part of loop and transport UNEs.**

Data UNEs

- **Advanced services unbundling (including xDSL, ATM, IP and frame relay) meets the Section 251(d)(2) unbundling standard – the advantages of incumbency are not limited to POTS.**
  - "Congress made clear that the 1996 Act is technologically neutral and is designed to ensure competition in all telecommunications markets."
- **The Commission must extend the UNE framework into the packet-switched world.**
  - Data networks do not follow the same hierarchical switching structure as ILEC circuit-switched networks. Instead, data customers are connected to an integrated fabric of data switches and/or routers and transport links.
  - The Commission should define a virtual circuit UNE at a series of pre-defined committed information rates. Virtual circuit UNE pricing should reflect efficiencies achieved through the network engineering practice of oversubscription.
- **ILEC arguments that "too much unbundling" will provide a disincentive for carriers to deploy their own facilities-based advanced service networks simply do not reflect reality.**

UNE Combinations

- **The Supreme Court confirmed the Commission's authority to require cost-based access to ILEC UNE combinations. To ensure that Rule 315(b) has its intended effect, the Commission must explicitly find that:**
  - If an ILEC uses a combination of network elements anywhere in its network to provide service to any customer or carrier, then the ILEC must, pursuant to Rule 315(b), make available the same combination to requesting carriers for any service they intend to provide and for any customer they intend to serve.
  - ILECs may not restrict the use of UNE combinations in any way.
  - UNEs need not be combined at the collocation point of the requesting carrier.
  - ILECs may not impose "glue charges" for combining UNEs.
  - ILECs must allow for the conversion of special access circuits to UNEs.
- **To prevent unnecessary litigation, the Commission should begin to identify specific combinations that must be provisioned under Rule 315(b).**

UNE Pricing

- **To ensure that UNEs are available at prices that are reasonable and nondiscriminatory, the Commission must explicitly find that:**
  - Disparities of more than 25% in an ILEC's rates for the same or comparable UNEs in different states and disparities of more than 100% in rates for the same or comparable UNEs among different ILECs presumptively are unreasonable.
  - State commissions must set volume and term discounts for ILEC UNEs.
  - If a state commission does not establish final or interim deaveraged rates for UNEs within six months after the release of the *Universal Service* high-cost funding order, a federal proxy rate equal to the largest density zone discount reflected in ILEC federal tariffs (for either switched or special access services), as of May 7, 1999, automatically will apply.
  - Loop conditioning costs must be excluded from TELRIC-based loop rates. Under the Commission's TELRIC pricing standards, ILEC loop rates must be set on a forward-looking basis, assuming the deployment of the most efficient available technologies – the assumption that analog circuits will be deployed simply has no place in a forward looking cost study.

ALTS

August 5, 1999 *Ex Parte* Presentation

Collocation: Reports from the Field

Advanced TelCom

- In negotiations, Ameritech, SBC, GTE, Bell Atlantic and Sprint are not offering CLECs collocation on terms that comply with the FCC's March 1999 order.
- U S West no longer allows CLECs to apply the fee associated with a feasibility analysis to the total fee for the final quote. U S West charges a feasibility analysis fee for cageless that is nearly double that imposed for caged collocation requests. Both actions appear to have been taken unilaterally – Advanced TelCom is unaware of any state commission filings made to implement these changes.
- On 23 collocations, U S West has failed to meet a single due date – every interval has been missed by a month or more.
- ILECs have not implemented reasonable means to ensure that CLECs' pro-rata costs are fair and reasonable.
- ILEC provisioning intervals are irrational. For example, U S West has a 45 day interval for cageless collocation in Washington, and a 90 day interval for cageless in Oregon. U S West's explanation: "policy".
- Because it offers cageless collocation, U S West maintains that it does not have to allow tours or submit floor plans to state commissions, in cases of space exhaust.
- Initial quotes for 10x10 cages in U S West territory run from $35,000 to $68,000 (averaging $53,000 for all types, $41,000 for cageless). Initial quote preparation fees of $1648 for caged and $2318 for cageless are in addition to those fees.
- Initial quotes for 10x10 cages in Pacific and Nevada Bell territories run from $30,000 to $82,000 (averaging $55,000, cageless is not available).

Allegiance

- ILECs are not providing collocation at TELRIC-based rates – in February, GTE demanded $508,000 for a 100 square foot cage in Santa Monica, California.

Cavalier

- Cavalier tried to collocate in 22 Bell Atlantic Central Offices in Northern Virginia. Bell Atlantic's website indicated that all 22 offices had space available. Cavalier filed a collocation request the next day. Every application [that] was returned indicated that no space was available. Cavalier toured several of the facilities and found available space. Bell Atlantic responded that the space was being reserved for future installation of its own switches. Cavalier is uncertain how to break the logjam and get space.
- Cavalier is confused by the significant disparity in collocation prices between Bell Atlantic North and Bell Atlantic South. In Bell Atlantic North, collocation is available for approximately $15,000 and in Bell Atlantic South, collocation costs $47,000.

e.spire

- As of July 1, Bell Atlantic Pennsylvania had only begun to assess whether there was space for cageless collocation in the 31 offices which it currently claims are at space exhaust.
- Florida and Georgia only recently have begun discussions on how to implement the FCC's cageless collocation requirement.
- No ILEC has agreed to convert e.spire's existing virtual collocations into physical collocations.

Focal

- Bell Atlantic has denied three physical collocation requests in Boston and Cambridge, Massachusetts. Bell Atlantic has resisted allowing Focal to tour these offices to verify space exhaust claims. Bell Atlantic also has rejected Focal's request to use free standing, "lockable", cageless collocation facilities – and has suggested that Focal use virtual collocation instead.

Intermedia

- No FCC tariffs have been filed to implement the FCC's March 1999 collocation order.
- ILECs have done little at the state level to implement the FCC's collocation order.
- In Texas, SWBT proposes to implement cageless collocation by building a cage around its own equipment and then charging CLECs for that cage. Commissioner Wood apparently has agreed that, if that is the only security measure SWBT imposes, it would be reasonable.
- Cage-to-cage cross-connects generally are allowed only to provide access to ILEC UNEs and services.
- In shared cage arrangements, Bell Atlantic seeks to hold the original CLEC liable for UNE and service charges not paid by the second CLEC.
- Bell Atlantic proposes a 10 foot space separation space around all of its equipment.

New England Voice and Data

- Many ILECs do not make collocation available at TELRIC-based rates. For example, in Massachusetts, New Hampshire and Rhode Island, the NRCs for *caged* collocation are in the $15,000 range – in Bell Atlantic South states, the NRCs for *cageless* collocation are $47,000.

NorthPoint

- ILECs are not offering shorter provisioning intervals for cageless collocation. On an equivalent space basis, Bell Atlantic's cageless collocation quotes are often higher than its caged collocation quotes.
- Ameritech and GTE do not permit collocation of any switching equipment.
- Most ILECs place "governors" on the number of collocation applications they will accept. For example, BellSouth will accept 5 applications per carrier, per month.
- Some infrastructure and collocation install charges are totaling more than $100,000. $50,000 is about average.

RhythmsNet

- BellSouth claims its 1996 Act obligation to provide physical collocation only obligates it to provide physical collocation in "unused" space. Space reserved for future use, including space reserved for virtual collocation, is not "unused" space.
- BellSouth claims that space reserved for virtual collocation and unused space are mutually exclusive concepts. Consequently, there will never be a scenario in which the same space may be used either for physical or virtual collocation; space will be available for one or the other.
- Since space for virtual is completely different space than space for physical (including cageless), BellSouth will not permit competitors to convert virtual collocation space to cageless space.

ALTS

Proposed Rule Amendments and Additions

CC Docket No. 96-98

June 22, 1999

The Association for Local Telecommunications Services ("ALTS") proposes the following amendments and additions to the Commission's rules regarding nondiscriminatory access to unbundled network elements pursuant to Section 251 of the Communications Act, as amended. *The absence of proposed changes to existing rule subsections should not be construed as an indication that ALTS is a proponent of eliminating a particular subsection of the Commission's existing rules.* Where possible, ALTS uses language from the Commission's existing rules, as well as language proposed by Covad Communications Company and the Competitive Telecommunications Association in comments filed separately in this proceeding on May 26, 1999. Changes or additions to rules currently listed in 47 C.F.R. Part 51 are underlined.

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

(f) State commissions may not modify an incumbent LEC's duties under this section by limiting network element unbundling obligations on the basis of the type, capacity or jurisdiction of service that can be offered through the use of network elements by a requesting telecommunications carrier.

§ 51.309 Use of unbundled network elements.

(d) State commissions may not modify an incumbent LEC's duties under this section by restricting a requesting telecommunications carrier's use of network elements in any way, including, but not limited to, the type, capacity or jurisdiction of service that can be offered through the use of network elements by a requesting telecommunications carrier.

§ 51.311 Nondiscriminatory access to unbundled network elements.

[new subsection]

(e) Incumbent LECs shall provide CLECs access to any and all equipment and facilities used to combine network elements in the same manner that the incumbent LEC uses such equipment and facilities to combine elements in the provision of their own telecommunications services.

§ 51.31x Unbundling standards.

(a) A network element is "proprietary in nature" if use of or access to that element necessarily reveals incumbent-specific methods or processes covered by intellectual property rights and protections, including those available under copyright, patent and trademark law.

(b) Unbundled access to a network element that is "proprietary in nature" is "necessary," for the purposes of Section 251(d)(2)(B), if (i) if no non-proprietary substitute is available from the incumbent LEC or a non-incumbent LEC source, and (ii) if failure to provide unbundled access materially would diminish the requesting telecommunications carrier's ability to offer a competing service offering comparable functionality. In determining whether unbundled access to a proprietary network element is necessary, the Commission evaluates the availability of comparable non-proprietary incumbent LEC substitutes and comparable non-incumbent LEC substitutes on the basis of functionality, quality of service, cost, scope of availability, timeliness of provisioning, and other factors, consistent with the public interest.

(c) Requesting telecommunications carriers' ability to offer a telecommunications service is "impaired," for the purposes of Section 251(d)(2)(B) and unbundling of a particular incumbent LEC network element is required, if an incumbent LEC's failure to provide unbundled access to a network element materially diminishes the requesting telecommunications carriers' ability to offer the service. In determining whether requesting telecommunications carriers will be impaired in the absence of an unbundling requirement, the Commission evaluates the availability of interchangeable elements on the basis of functionality, quality of service, cost, scope of availability, timeliness of provisioning, and other factors consistent with the public interest.

§ 51.315 Combination of unbundled network elements.

(b) Except upon request, an incumbent LEC shall not separate requested network elements that the incumbent LEC currently combines.

(1) Incumbent LECs must perform all the functions necessary to combine those elements that ordinarily are combined within their network, in the manner in which they are typically combined.

(2) If an incumbent LEC uses a combination of network elements anywhere in its network to provide service to any customer or carrier, the incumbent LEC must make available the same combination to requesting telecommunications carriers for any service they intend to provide and for any customer they intend to serve.

(3) Combinations of network elements that must be made available pursuant to this rule include, but are not limited to, combinations of: (i) loops, multiplexing/aggregation/routing equipment or functionalities, and interoffice transport; (ii) transport between ILEC end offices, multiplexing/aggregation/routing equipment or functionalities, and transport between ILEC end offices and a requesting telecommunications carrier's point of presence; (iii) loops or subloop components and intraMTE wiring..

[restored subsection] (c) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not ordinarily combined in the incumbent LEC's network, provided that such combination is:

(1) Technically feasible; and

(2) Would not impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

[restored subsection] (d) Upon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements with elements possessed by the requesting telecommunications carrier in any technically feasible manner.

[restored subsection] (e) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(1) or paragraph (d) of this section must prove to the state

commission that the requested combination is not technically feasible.

[restored subsection] (f) An incumbent LEC that denies a request to combine elements pursuant to paragraph (c)(2) of this section must prove to the state commission that the requested combination would impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

(g) The use of network element combinations shall not be restricted in any way, including but not limited to, the type, capacity or jurisdiction of service that can be offered by the requesting telecommunications carrier.

(h) Network elements may be combined at the collocation point, which may include caged, cageless and other arrangements, of the requesting telecommunications carrier. Incumbent LECs shall not require the combination of network elements to occur at the collocation point of a requesting telecommunications carrier.

§ 51.319 Specific unbundling requirements.

An incumbent LEC shall provide nondiscriminatory and unrestricted access in accordance with § 51.311 of this part and section 251(c)(3) of the Act to the following network elements on an unbundled basis to any requesting telecommunications carrier for the provision of any telecommunications service:

(a) *Local Loop*. The local loop network element is defined as a transmission capability, regardless of the transmission media involved, between a requesting telecommunications carrier-designated point of interconnection and an end user customer premises.

(1) The local loop network element shall encompass all features, functions and capabilities of the underlying transmission facilities deployed along the local loop transmission path. Where integrated digital loop carrier systems ("IDLC") or similar intra-loop facilities are deployed, incumbent LECs shall provision a loop equivalent to the requesting telecommunications carrier that does not impair the requesting telecommunications carrier's ability to provide service. In so doing, incumbent LECs shall provide unbundled access to either (i) alternative or "spare" copper that is equal in quality and price, or (ii) the IDLC-provisioned loop equivalent with intra-loop electronics incorporated.

(2) A requested point of interconnection or method of loop unbundling is presumed technically feasible if the point or method has been ordered or determined to be technically feasible by this Commission or any state commission, or if the point or method has been deployed successfully by any LEC. The incumbent LEC bears the burden of demonstrating that it is not technically feasible to unbundle the loop in the requesting manner.

(3) Incumbent LECs shall deploy remote terminals, remote terminal equipment and central office equipment capable of supporting multiple types and providers of advanced services over local loop facilities.

(4) The local loop network element shall include all cross-connects needed to connect it to other network elements provided by the incumbent LEC or the requesting telecommunications carrier.

(5) The local loop network element shall include the network interface device, unless the requesting telecommunications carrier requests that the loop be provisioned without it.

(6) An incumbent LEC, upon request, shall take all necessary steps to condition a local loop to provide voice-grade or advanced services through modifications including, but not limited to, removing load coils, bridge taps, and other active or passive electronics, such as repeaters.

(7) Wherever technically possible, the incumbent LEC shall provide the local loop network element configured in a manner to support the transmission specifications of the requesting telecommunications carrier.

(8) Incumbent LECs may not restrict the types of loops which must be unbundled and, at a minimum, shall offer the following types of local loops: 2-wire analog, 2-wire digital, 4-wire analog, 4-wire digital loops, conditioned or "clean copper" loops, and fiber loops. This unbundling requirement includes, but is not limited to, ISDN-PRI, ISDN-BRI, xDSL-capable, xDSL-equipped, high capacity loops (*e.g.*, DS1, DS3, OCn), and "dark fiber" (optical fiber with no electronics attached) loops.

(9) Wherever technically possible, the incumbent LEC shall provide unbundled access to subloop elements including: (i) distribution cable; (ii) equipment in the

remote node or terminal, including equipment in below-ground controlled environmental vaults and above ground pedestals; (iii) intra-loop multiplexing/aggregation/routing equipment; and (iv) feeder cable.

(d) *Interoffice Transmission Facilities*.

(1) Interoffice transmission facilities include:

(i) Dedicated transport, defined as incumbent LEC transmission facilities, at any standard level, including but not limited to DS1, DS3 and OCn levels, dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs, requesting telecommunications carriers, or third-party providers, or between switching, routing or multiplexing facilities owned by incumbent LECs, requesting telecommunications carriers, or third-party providers. This unbundling obligation includes "entrance facilities" between ILEC end offices and a requesting telecommunications carrier's point of presence and "dark fiber" (optical fiber with no electronics attached) transmission facilities.

(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 "derived capacity" via the use of the features, functions, and capabilities of interoffice transmission facilities shared by more than one customer or carrier, including the ILEC;

(ii) provide all technically feasible transmission facilities, features, functions, and capabilities, including, but not limited to, high capacity DS1, DS3 and OCn, and "dark fiber" (optical fiber with no electronics attached) transport facilities, 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 telecommunications carrier's collocated facilities and equipment or facilities deployed at remote terminal or remote switching or remote multiplexing/aggregation/routing points;

(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, other incumbent LECs, other telecommunications providers, or information service providers;

(3) The interoffice transmission facilities network element shall include all cross-connects needed to connect it to other network elements provided by the incumbent LEC or the requesting telecommunications carrier.

(4) The incumbent LEC shall provide a requesting telecommunications carrier use of packet transport defined as the transport of packetized information between (and including) two or more packet devices, or between interconnected transmission facilities which terminate at a packet device, including any intermediate routing or switching, without regard to the protocol or packet definition scheme involved. The packet transport network element shall include all features, functions and capabilities of the incumbent LEC's packet transport network.

(f) *Operations Support Systems Functions*.

(2) An incumbent LEC shall provide nondiscriminatory, electronic access to information pertaining to the physical attributes and characteristics of loops, including, but not limited to loop type, length, conditioning, and the presence of intra-loop devices and facilities.

(x) *Extended Link.*

(1) The extended link is defined as a dedicated transmission path connecting an end user with a requesting telecommunications carrier's voice or data switch at the requesting telecommunications carrier's point of presence. Extended links may be comprised of intra-multi-tenant-environment wiring, network interface device, loop, multiplexing/aggregation/routing, and dedicated interoffice transmission facilities.

(2) Incumbent LECs must provide unbundled access to extended links incorporating any loop or transport type specified by the requesting telecommunications carrier.