feeder loop plant transporting voice traffic connects to the carrier's switch in its central office (often through intermediate electronics in the central office).[673] By contrast, the feeder loop plant transporting the broadband signal terminates at a packet switch (usually referred to as an "optical concentration device" or OCD) also located in the carrier's central office.[674]

219. In recent years, carriers have started deploying FTTH – that is, using fiber optic cable to replace traditional copper loops. Whereas the use of fiber feeder plant and DLC systems is an augmentation of the existing network and relies on the continued use of copper (albeit to a lesser degree) in the loop plant, FTTH is essentially a broad replacement of the existing loop plant. The use of fiber optic cable requires the deployment of network equipment with different features and capabilities from comparable equipment used for copper cable. As noted above, deployment of FTTH loops – that is, a transmission path consisting entirely of fiber optic cable and associated equipment between the customer's premises and the central office – remains in its infancy.

220. Carriers use different technologies to transport telecommunications over their networks. As digital transmission technologies replaced analog systems, carriers started using TDM to combine multiple transmission paths onto a single cable.[675] TDM provides a transmission path by dividing a circuit into time slots and providing a dedicated time slot to an end user for the duration of the call. More recently, carriers have started using packet-switched technologies (*e.g.*, ATM or frame relay) to combine different types of traffic over shared facilities.[676] By using packet-switched technology, carriers can transmit voice, fax, data, video, and other over a single transmission path at the same time.

221. In light of the foregoing, we find that our unbundling rules for local loops serving the mass market must account for these different loop architectures. Therefore, we craft unbundling rules specific to each different loop type. First, we address our unbundling rules for loops consisting of copper pairs of various gauges and associated electronics (*e.g.*, load coils,

(Continued from previous page)

(Verizon Sept. 30, 2002 *Ex Parte* Letter) (submitting diagram showing the use of two parallel feeder loops to provide broadband service through DLC systems).

673 Alcatel Reply at 6 (explaining that voice and data traffic are segregated in the incumbent LEC's central office).

674 AT&T Comments at 187-89; Covad Comments at 65; WorldCom Comments at 108; WorldCom Stumbaugh/Reilly Decl. at para. 13; Letter from Jonathan J. Boynton, Associate Director – Federal Regulatory, SBC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 at 5 (filed Jan. 15, 2003) (SBC Jan. 15, 2003 *Ex Parte* Letter); Verizon Sept. 30, 2002 *Ex Parte* Letter at 10. Several parties explain that an OCD is equivalent to a main distribution frame. *See, e.g.*, Covad Comments at 65 (noting that the OCD demultiplexes data transmissions from the fiber feeder and distributes the signal to its next destination).

675 *See, e.g.*, Walter Goralski, ADSL AND DSL TECHNOLOGIES 77-98 (1998) (describing differences between packet-switched and circuit-switched networks); Walter Goralski, SONET 99-108 (2d. ed. 2000) (describing T-carrier and different multiplexing techniques).

676 For example, some carriers use packet-switching technology as the building blocks of their networks. *See, e.g.*, NewSouth Comments at 11-13 (describing use of packet-switching technology in its network).

repeaters, multiplexers), which we refer to as copper loops. Second, we address our unbundling rules for loops consisting of DLC systems that are fed by fiber optic cable, which we refer to as "hybrid loops." Finally, we address our unbundling rules for loops consisting entirely of fiber optic cable, which we refer to as FTTH loops.

(iii) Evidence of Loop Deployment

222. The record indicates that deployment of alternative local loop facilities for the purposes of providing telecommunications services to the mass market has been minimal. The record also indicates, however, that there is evidence that other types of network facilities deployed primarily for other purposes (*e.g.*, cable television systems, satellite technologies) can and are increasingly being modified to support the delivery of narrowband and broadband services, particularly telephony and high-speed Internet access services, to the mass market. As a general matter, while these systems are increasingly being used for the delivery of retail narrowband and broadband services (*e.g.*, telephony and high-speed Internet access services), the record indicates that such systems are not being used currently to provide wholesale local loop offerings that might substitute for access to incumbent LECs' loop facilities.

223. The factual record consists of three parts. First, several parties submitted detailed studies describing local loop deployment and conditions surrounding competitive access to local loops.[677] Second, many parties described their network operations, experiences, and future deployment plans in comments and *ex parte* letters.[678] Finally, the Commission staff has

[677] *See, e.g.*, BOC UNE Fact Report 2002; Letter from Dee May, Assistant Vice President, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Oct. 23, 2002) (submitting *UNE Rebuttal Report 2002* commissioned by the BOCs); CCG July 17, 2002 CLEC Survey *Ex Parte* Letter. These studies in turn rely on additional evidence to support their conclusions, such as briefings to the investment community, analyst reports, newspaper articles, and trade industry reports. Some commenters argue that unbundling requirements decrease incumbent LECs' financial rewards from selling future broadband services by increasing the risk of investment, thereby decreasing the amount of investment incumbent LECs will make in broadband infrastructure. *See, e.g.*, Corning Comments at 5-9; HTBC Comments at 28-33, App. A (submitting John Haring and Jeffrey H. Rohlfs, *The Disincentives for ILEC Broadband Deployment Afforded by the FCC's Unbundling Policies* (July 16, 2002)); Verizon Comments at 27-32 (submitting Declaration of Alfred E. Kahn and Timothy J. Tardiff); Letter from Matthew J. Tanielian, Vice President – Governmental Relations, ITI – Information Technology Industry Council, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Apr. 22, 2002) (HTBC Apr. 22, 2002 *Ex Parte* Letter); Letter from W. W. Jordan, Vice President – Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Oct. 15, 2002) (BellSouth Oct. 15, 2002 *Ex Parte* Letter). By contrast, other commenters argue that unbundling requirements do not decrease the incentives for BOCs to provide broadband services over fiber-fed loops. *See, e.g.*, AT&T Willig Decl. at paras. 15, 175; Letter From Jason D. Oxman, Vice President and Assistant General Counsel, Covad, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Nov. 22, 2002) (Covad Nov. 22, 2002 *Ex Parte* Letter); Covad Murray Reply Decl. at paras. 99-113; Letter from C. Frederick Beckner III, Counsel for AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 4 (filed Dec. 6, 2002) (AT&T Dec. 6, 2002 *Ex Parte* Letter).

[678] *See, e.g.*, ACS Reply at 5-6 (describing market conditions in Alaska); BellSouth Rely, Reply Declaration of Prof. Robert G. Harris (BellSouth Harris Reply Decl.) at paras. 11-21 (submitting projections and market data related to broadband services); New York State Attorney General Reply at 4, 9-11 (describing competitive entry in New York); Letter from Rebecca H. Sommi, Vice President Operations Support, Broadview Networks, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 (filed Oct. 16, 2002) (Broadview Oct. 16, 2002 (continued....)

279. We further agree with Corning that our FTTH policy adopted herein should not adversely affect competitive LECs for several reasons.[819] First, competitive LECs have demonstrated that they can self-deploy FTTH loops and are doing so at this time. Second, competitive LECs can continue to use resale as a means for serving mass market customers after incumbent LECs deploy FTTH loops. Finally, competitive LECs can continue to have unbundled access to existing copper facilities, to the extent such facilities are available.

280. For these reasons, we disagree with AT&T that we should further study issues surrounding the deployment of FTTH loops used to serve the mass market.[820] The record contains sufficient information concerning the current deployment of FTTH loops and the economic barriers surrounding such deployment, as well as a number of studies and projections of future FTTH deployment.[821]

281. *Retirement of Copper Loops*. We decline to impose a blanket prohibition on the ability of incumbent LECs to retire any copper loops or subloops they have replaced with FTTH loops. Several parties also propose extensive rules that would require affirmative regulatory approval prior to the retirement of any copper loop facilities.[822] We find that such a requirement is not necessary at this time because our existing rules, with minor modifications, serve as adequate safeguards.[823] Pursuant to the Act and the Commission's rules, incumbent LECs must provide public notice of any network change that will affect a competing carrier's performance or ability to provide service.[824] Because the retirement of copper loop plant is a network modification that affects the ability of competitive LECs to provide service,[825] we clarify that

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819 *See* Corning Feb. 6, 2003 *Ex Parte* Letter at 5.

820 AT&T Reply at 74 (advocating that the Commission study FTTH deployment issues further before determining what unbundling requirements, if any, apply to FTTH loops used to serve the mass market).

821 *See* Corning Nov. 26, 2002 *Ex Parte* Letter, Attach. at 29-33 (describing revenue opportunities), 42-45 (describing competitive LEC ability to self-deploy FTTH loops); *CSMG Study* at 10-14 (providing overview of study conclusions).

822 Allegiance Comments at 25; California Commission Comments at 18 (proposing rule requiring incumbent LEC to maintain copper plant); Letter from Timothy J. Regan, Corning, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 at 9 (filed Nov. 27, 2002) (Corning Nov. 27, 2002 *Ex Parte* Letter) (arguing that incumbent LECs should have the option of retiring or selling copper plant where FTTH is deployed); HTBC Comments at 36-37 (proposing measures regarding incumbent LEC retirement of legacy copper plant); TIA Comments at 17-18 (proposing rule to prohibit incumbent LECs from retiring copper loops unless they allow access to broadband facilities); AT&T Reply at 216-19 (asserting that a home-run copper loop may be of inferior quality).

823 *See* Verizon Jan. 17, 2003 *Ex Parte* Letter at 7 (arguing that a duty to maintain two networks would impose additional costs).

824 47 U.S.C. § 251(c)(5); 47 C.F.R. §§ 51.325-.335. This disclosure requirement applies to the retirement of both feeder plant and distribution plant.

825 *See, e.g.*, Sprint Comments at 45 (arguing that a competitive LEC could be stranded after an incumbent LEC upgrades its loop plant); Supra Comments at 10-13.

incumbent LECs must provide notice of such retirement in accordance with our rules. Thus, incumbent LECs must disclose among other things the planned date for retiring a copper loop and a description of the reasonably foreseeable impact of the planned changes.[826] Such notifications will ensure that incumbent and competitive carriers can work together to ensure the competitive LECs maintain access to loop facilities.

282. Consistent with the proposals of Corning and HTBC, we modify our network modification rules with respect to the retirement of copper loops.[827] Specifically, when a copper loop is retired and replaced with a FTTH loop, we allow parties to file objections to the incumbent LEC's notice of such retirement. Consistent with our existing network disclosure rules, such oppositions must be filed with the Commission and served on the incumbent LEC within nine business days from the release of the Commission's public notice.[828] Unless the copper retirement scenario suggests that competitors will be denied access to the loop facilities required under our rules, we will deem all such oppositions denied unless the Commission rules otherwise upon the specific facts and circumstances of the case at issue within 90 days of the Commission's public notice of the intended retirement.

283. We note that, with respect to network modifications that involve copper loop retirements, the rules we adopt herein differ in two respects from the notification rules that apply to other types of network modifications.[829] First, we establish a right for parties to object to the incumbent LEC's proposed retirement of its copper loops for both short-term and long-term notifications as outlined in Part 51 of the Commission's rules. By contrast, our disclosure rules for other network modifications permit oppositions only for instances involving short-term notifications.[830] Second, we establish a mechanism to deny such objections automatically unless the Commission rules otherwise within 90 days of the Commission's public notice of the intended retirement. As a practical matter, this mechanism redefines the short-term notice rules for a subset of network modifications, *i.e.*, retirement of copper loops that are replaced by FTTH loops, and means that incumbent LECs must file their disclosures for copper loop retirements at least 91 days prior to their planned retirement date.

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[826] *See* 47 C.F.R. § 51.327.

[827] Corning Feb. 6, 2003 *Ex Parte* Letter at 7 (proposing a 90-day application process before the Commission with respect to the retirement of any copper loops); Letter from Derek R. Khlopin, HTBC, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Jan. 23, 2003) (HTBC Jan. 23, 2003 *Ex Parte* Letter) (stating that HTBC's proposal would prohibit incumbent LECs "from retiring the existing copper loop absent permission from the Commission.").

[828] Objections to both short and long-term notices should be made in accordance with section 51.333(c) of the Commission's rules. Moreover, incumbent LECs may respond to such objections in accordance with section 51.333(d) of the Commission's rules. *See* 47 C.F.R. § 51.333(c)-(d).

[829] These modified network notification requirements apply only to the retirement of copper loops and copper subloops, but not to the retirement of copper feeder plant.

[830] *See* 47 C.F.R. § 51.333(c)-(d).

284. As a final matter, we stress that we are not preempting the ability of any state commission to evaluate an incumbent LEC's retirement of its copper loops to ensure such retirement complies with any applicable state legal or regulatory requirements. We also stress that we are not establishing independent authority based on federal law for states to review incumbent LEC copper loop retirement policies. We understand that many states have their own requirements related to discontinuance of service, and our rules do not override these requirements. We expect that the state review process, working in combination with the Commission's network disclosure rules noted above, will address the concerns noted by Corning and others regarding the potential impact of an incumbent LEC retiring its copper loops.

(ii) Hybrid Loops

285. Hybrid loops represent an important step towards the deployment of a fiber-based network capable of supporting a wide array of advanced telecommunications and other services. Several incumbent LECs note that they pursue their construction and network modification projects in incremental ways – first, deployment of fiber in the feeder plant and associated equipment like DLC systems (often with line cards capable of providing xDSL services), followed by fiber-to-the-curb, followed by FTTH.[831] In light of this practice, we view our task with respect to hybrid loops as determining an unbundling approach that addresses impairment, but also aligns business incentives with the explicit congressional goal of promoting the rapid deployment of advanced services.

286. In making our unbundling determination for hybrid loops, we consider both impairment and, through our section 251(d)(2) "at a minimum" authority, additional factors. As noted above, we find that competitive LECs are impaired on a national basis without unbundled access to a transmission path when seeking to provide service to the mass market. We further find that this impairment at least partially diminishes with the increasing deployment of fiber. In addition, we retain the flexibility to determine the unbundling approach that best addresses the impairment in a manner that advances other goals of the Act. In this regard, balanced against impairment, we evaluate three primary factors to determine the most appropriate unbundling requirements for hybrid loops. First, we consider the costs of unbundling, *i.e.*, whether refraining from unbundling requirements will stimulate facilities-based investment and promote the deployment of advanced telecommunications infrastructure. Second, we consider the effect of alternatives to mandating unbundled access to the hybrid loops of incumbent LECs. In particular, we consider whether unbundled access to subloops, spare copper loops, and the non-packetized portion of incumbent LEC hybrid loops, as well as remote terminal collocation, offer suitable alternatives to an intrusive unbundling approach. Finally, we consider the state of intermodal competition in crafting our unbundling approach. As explained further below, after balancing these three primary factors against our impairment findings, we adopt a national approach that relieves incumbent LECs of unbundling requirements for the next-generation network capabilities of their hybrid loops, while at the same time ensures requesting carriers have access to the transmission facilities they need to serve the mass market.

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[831] *See* Verizon Nov. 22, 2002 *Ex Parte* Letter at 1.

use integrated equipment (*e.g.*, integrated line cards deployed in DLC systems).[846] Incumbent LECs remain obligated to comply with the nondiscrimination requirements of section 251(c)(3) in their provision of loops to requesting carriers, including stand-alone spare copper loops, copper subloops, and the features, functions, and capabilities for TDM-based services over their hybrid loops. In this regard, we prohibit incumbent LECs from engineering the transmission capabilities of their loops in a way that would disrupt or degrade the local loop UNEs (either hybrid loops or stand-alone copper loops) provided to competitive LECs. To ensure competitive LECs receive the transmission path within the parameters we establish, we determine that any incumbent LEC practice, policy, or procedure that has the effect of disrupting or degrading access to the TDM-based features, functions, and capabilities of hybrid loops for serving the customer is prohibited under the section 251(c)(3) duty to provide unbundled access to loops on just, reasonable, and nondiscriminatory terms and conditions.[847]

295. Finally, in balancing potential impairment against our obligations under section 706, we conclude that the costs associated with unbundling these packet-based facilities outweigh the potential benefits. A number of parties have argued that unbundling requirements deter the incentive of incumbent LECs to take risks and deploy fiber-based networks because they would face reduced returns on their investment.[848] We recognize that, particularly in the realm of next-generation network capabilities, unbundling requirements could have the unintended effect of blunting innovation because such an approach would largely lock competitive LECs to the technological choices of the incumbent LECs. We therefore consider the effect of other approaches, such as the subloop access and remote terminal collocation requirements, discussed above, on stimulating the deployment of advanced telecommunications infrastructure. For these reasons, we conclude that it is consistent with our section 706 mandate to promote investment in infrastructure by refraining from unbundling incumbent LECs' next-generation network facilities and equipment.

296. *Narrowband Services*. With respect to providing unbundled access to hybrid loops for a requesting carrier to provide narrowband service,[849] we require incumbent LECs to provide an entire non-packetized transmission path capable of voice-grade service (*i.e.*, a circuit equivalent to a DS0 circuit) between the central office and customer's premises. Pursuant to this requirement, competitive LECs will be able to obtain access to UNE loops comprised of the feeder portion of the incumbent LEC's loop plant, the distribution portion of the loop plant, the

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[846] In their submissions in this proceeding, incumbent LECs demonstrate that they typically segregate transmissions over hybrid loops onto two paths, *i.e.*, a circuit-switched path using TDM technology and a packet-switched path (usually over an ATM network). *See, e.g.*, SBC Jan. 15, 2003 *Ex Parte* Letter at 4 (providing diagram to illustrate that its network architecture consists of a TDM-based portion and a packet-switched portion).

[847] Notwithstanding our prohibition against disrupting or degrading unbundled access to the TDM capabilities of hybrid loops, incumbent LECs may remove copper loops from their plant so long as they comply with our Part 51 network notification requirements, as amended by this Order, and any applicable state law.

[848] *See* Corning Comments at 7-9.

[849] Narrowband services include traditional voice, fax, and dial-up modem applications over voice-grade loops.

attached DLC system, and any other attached electronics used to provide a voice-grade transmission path between the customer's premises and the central office.[850] Consistent with the access requirements for broadband services noted above, we limit the unbundling obligations for narrowband services to the TDM-based features, functions, and capabilities of these hybrid loops. Incumbent LECs may elect, instead, to provide a homerun copper loop rather than a TDM-based narrowband pathway over their hybrid loop facilities if the incumbent LEC has not removed such loop facilities.[851]

297. We recognize that providing unbundled access to hybrid loops served by a particular type of DLC system, *e.g.*, Integrated DLC systems, may require incumbent LECs to implement policies, practices, and procedures different from those used to provide access to loops served by Universal DLC systems.[852] These differences stem from the nature and design of Integrated DLC architecture. Specifically, because the Integrated DLC system is integrated directly into the switches of incumbent LECs (either directly or through another type of network equipment known as a "cross-connect") and because incumbent LEC's typically use concentration as a practice for engineering traffic on their networks, a one-for-one transmission path between an incumbent's central office and the customer premises may not exist at all times. Even still, we require incumbent LECs to provide requesting carriers access to a transmission path over hybrid loops served by Integrated DLC systems.[853] We recognize that in most cases this will be either through a spare copper facility or through the availability of Universal DLC systems.[854] Nonetheless even if neither of these options is available, incumbent LECs must present requesting carriers a technically feasible method of unbundled access.[855]

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[850] As discussed below, we do not require incumbent LECs to maintain or retain copper loops if they have deployed fiber replacements. Incumbent LECs have the option of either providing competitive LECs with unbundled access to a voice-grade channel over a hybrid loop or, to the extent a copper loop exists, the existing copper loop.

[851] As Qwest points out, when incumbent LECs construct new loop plant, they frequently overlay fiber facilities that supplement existing loops. Qwest Comments at 45; Alcatel Comments at 16 (noting that, when incumbent LECs deploy fiber loops, competitive LECs would continue to maintain access to legacy copper transmission facilities). Thus, the construction of new facilities does not in itself alter a competitive LEC's ability to use the incumbent's network. Qwest Comments at 45. Qwest explains that it "does not proactively remove copper facilities in the case of an overlay" so that requesting carriers should be able to continue providing service in these circumstances. Qwest Comments at 45-46.

[852] McLeodUSA Dec. 18, 2002 *Ex Parte* Letter at 10-11; Letter from Joan Marsh, Director, Federal Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 2-3 (filed Dec. 4, 2002) (AT&T Dec. 4, 2002 *Ex Parte* Letter) (describing operational issues related to providing unbundled access to loops served by DLC systems using a GR-303 interface, *i.e.*, integrated DLC systems, and proposing some solutions); McLeodUSA Nov. 15, 2002 *Ex Parte* Letter at 1.

[853] *See* SBC Jan. 15, 2003 *Ex Parte* Letter at 3; SBC Jan. 24, 2003 *Ex Parte* Letter, Attach. 2 at 3-4.

[854] *See* Letter from Jim Lamoureux, Senior Counsel, SBC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 at 1 (filed Dec. 10, 2002) (SBC Dec. 10, 2002 *Ex Parte* Letter) (describing DLC deployment in SBC's region). SBC explains that, for 99.88% of SBC's lines served over Integrated DLC, competitive LECs have access (continued....)

combinations constitute unjust, unreasonable, and discriminatory terms and conditions for obtaining access to UNE combinations and are prohibited by the Act and our rules.[1783]

578. We decline to link the availability of EELs and other UNE combinations to our analysis in the *Pricing Flexibility Order*.[1784] Because the comprehensive impairment analysis we adopt herein addresses the arguments of Qwest and other incumbent LECs concerning the availability of alternative transmission facilities, additional conditions are not necessary to determine the availability of EELs and other UNE combinations.

c. General Commingling Issues for Transmission Facilities

579. We eliminate the commingling restriction that the Commission adopted as part of the temporary constraints in the *Supplemental Order Clarification* and applied to stand-alone loops and EELs. We therefore modify our rules to affirmatively permit requesting carriers to commingle UNEs and combinations of UNEs with services (*e.g.*, switched and special access services offered pursuant to tariff), and to require incumbent LECs to perform the necessary functions to effectuate such commingling upon request. By commingling, we mean the connecting, attaching, or otherwise linking of a UNE, or a UNE combination, to one or more facilities or services that a requesting carrier has obtained at wholesale from an incumbent LEC pursuant to any method other than unbundling under section 251(c)(3) of the Act, or the combining of a UNE or UNE combination with one or more such wholesale services. Thus, an incumbent LEC shall permit a requesting telecommunications carrier to commingle a UNE or a UNE combination with one or more facilities or services that a requesting carrier has obtained at wholesale from an incumbent LEC pursuant to a method other than unbundling under section 251(c)(3) of the Act. In addition, upon request, an incumbent LEC shall perform the functions necessary to commingle a UNE or a UNE combination with one or more facilities or services that a requesting carrier has obtained at wholesale from an incumbent LEC pursuant to a method other than unbundling under section 251(c)(3) of the Act. As a result, competitive LECs may connect, combine, or otherwise attach UNEs and combinations of UNEs to wholesale services (*e.g.*, switched and special access services offered pursuant to tariff), and incumbent LECs shall

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[1783] 47 U.S.C. §§ 201-202, 251(c)(3); 47 C.F.R. §§ 51.311-.315. *See* XO Reply at 7 (arguing that competitive LECs may obtain EELs without conversion requirements); Cbeyond Apr. 5, 2001 Comments at 6-9 (arguing that incumbent LECs have required compliance audits before providing access to a UNE combination); Focal Apr. 30, 2001 Reply at 6.

We note that, because the Eighth Circuit had vacated our rules concerning new combinations, competitive LECs could obtain access to EELs through a conversion process under section 51.315(b) of our rules, which prohibited incumbent LECs from separating network elements ordinarily combined. In light of *Verizon*, our new combinations rules were reinstated, and thus, competitive LECs may order new UNE combinations and need not convert special access (or other previously combined network elements) to UNE combinations. *See Verizon*, 535 U.S. at 531-38 (upholding the Commission's rules on UNE combinations).

[1784] Qwest Reply at 56-57. We note that Qwest later modified its position to support the availability of EELs. *See* Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 15-17 (filed Dec. 17, 2002) (Qwest Dec. 17, 2002 *Ex Parte* Letter).

not deny access to UNEs and combinations of UNEs on the grounds that such facilities or services are somehow connected, combined, or otherwise attached to wholesale services.

580. As explained below, however, we do not require incumbent LECs to "ratchet"[1785] individual facilities. Thus, we do not require incumbent LECs to implement any changes to their billing or other systems necessary to bill a single circuit at multiple rates (*e.g.*, a DS3 circuit at rates based on special access services and UNEs) in order to charge competitive LECs a single, blended rate. Although we do not require ratcheting, we do note that incumbent LECs shall not deny access to a UNE on the ground that the UNE or UNE combination shares part of the incumbent LEC's network with access services or other non-qualifying services.[1786]

581. We conclude that the Act does not prohibit the commingling of UNEs and wholesale services and that section 251(c)(3) of the Act grants authority for the Commission to adopt rules to permit the commingling of UNEs and combinations of UNEs with wholesale services, including interstate access services. An incumbent LEC's wholesale services constitute one technically feasible method to provide nondiscriminatory access to UNEs and UNE combinations.[1787] We agree with the Illinois Commission, the New York Department, and others that the commingling restriction puts competitive LECs at an unreasonable competitive disadvantage by forcing them either to operate two functionally equivalent networks – one network dedicated to local services and one dedicated to long distance and other services – or to choose between using UNEs and using more expensive special access services to serve their customers.[1788] Thus, we find that a restriction on commingling would constitute an "unjust and

[1785] Ratcheting is a pricing mechanism that involves billing a single circuit at multiple rates to develop a single, blended rate.

[1786] More specifically, our approach to ratcheting does not mean that an incumbent LEC can refuse to commingle a UNE with a special access service because the incumbent LEC multiplexes traffic for multiple customers onto one facility within its own network. For example, an incumbent LEC shall not refuse to provide a UNE DS1 transport (where such UNEs are available) on the grounds that the UNE shares a transmission facility with tariffed access services or other wholesale services.

[1787] *See* NewSouth Comments at 42-43 (describing connections and work processes); Qwest Dec. 17, 2002 *Ex Parte* Letter at 15-16 (proposing and describing EEL arrangements); Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 4-6 (filed Dec. 18, 2002) (Qwest Dec. 18, 2002 EELs *Ex Parte* Letter) (describing Qwest's commingling proposal); Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Feb. 6, 2003) (Qwest Feb. 6, 2003 EELs *Ex Parte* Letter) (describing Qwest's commingling proposal); AT&T Apr. 5, 2001 Comments at 22. In addition, we find that commingling is a technically feasible practice. *See, e.g.*, AT&T Apr. 30, 2001 Reply, CC Docket No. 96-98, Decl. of Anthony Fea and William J. Taggart III (AT&T Apr. 30, 2001 Fea/Taggart Reply Decl.) at para. 40 (asserting that linking loops or loop-transport combinations with high-capacity special access services is technically feasible). In light of the determinations we make herein, we grant WorldCom's request to clarify that requesting carriers may commingle UNEs with other types of services. MCI WorldCom Feb. 17, 2000 Petition for Clarification at 21-23.

[1788] In the *Local Competition Order*, the Commission concluded that those "terms require incumbent LECs to provide unbundled elements under terms and conditions that would provide an efficient competitor with a meaningful opportunity to compete." 11 FCC Rcd at 15660, para. 315; *see UNE Remand*, 15 FCC Rcd at 3913-14, paras. 490-91. A number of parties persuade us that a commingling restriction, combined with the reduced (continued....)

unreasonable practice" under 201 of the Act, as well as an "undue and unreasonable prejudice or advantage" under section 202 of the Act.[1789] Furthermore, we agree that restricting commingling would be inconsistent with the nondiscrimination requirement in section 251(c)(3).[1790] Incumbent LECs place no such restrictions on themselves for providing service to any customers by requiring, for example, two circuits to accommodate telecommunications traffic from a single customer or intermediate connections to network equipment in a collocation space.[1791] For these

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unbundling obligations, would raise the costs of competitive LECs. AT&T Comments at 106-107; ALTS *et al.* Comments at 106; CompTel Comments at 97; Illinois Commission Comments at 5; Sprint Comments at 55-57; WorldCom Comments at 55; AT&T Reply at 293 (citing AT&T Lesher Reply Decl. at paras. 34-36); NewSouth Reply at 37; Sprint Reply at 46; NuVox *et al.* Reply at 52; XO Reply at 17; Letter from Ruth Milkman, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 13 (filed Oct. 7, 2002) (WorldCom Oct. 7, 2002 EELs *Ex Parte* Letter) (asserting that commingling "forces needless inefficiencies on competitors"); Letter from Michael H. Pryor, Counsel for NewSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98 (filed Oct. 18, 2002) (NewSouth Oct. 18, 2002 Loops and Commingling *Ex Parte* Letter); ALTS/CompTel Oct. 28, 2002 *Ex Parte* Letter at 5; Cbeyond Nov. 22, 2002 *Ex Parte* Letter; Letter from Jonathan Askin, General Counsel, ALTS, to William F. Maher, Chief, Wireline Competition Bureau, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 5 (filed Nov. 14, 2002) (ALTS Nov. 14, 2002 Use and Commingling Restrictions *Ex Parte* Letter); WorldCom Nov. 22, 2002 *Ex Parte* Letter at 13-14; AT&T Dec. 23, 2002 *Ex Parte* Letter at 8 (arguing that commingling restrictions force competitive LECs into inefficient network architectures); Letter from Ruth Milkman, Counsel for WorldCom, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 3 (filed Feb. 13, 2003) (WorldCom Feb. 13, 2003 EELs *Ex Parte* Letter); Letter from Patrick Donovan, Counsel for Cbeyond, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338 at 4 (filed Feb. 13, 2003) (Cbeyond Feb. 13, 2003 EELs and Commingling *Ex Parte* Letter). *See* Cbeyond *et al.* Apr. 5, 2001 Comments at 14 (requesting clarification that competitive LECs can purchase access to a DS1 EEL that is "riding on a DS3 circuit with other types of ancillary traffic"); CompTel Apr. 5, 2001 Comments at 33; AT&T Apr. 30, 2001 Fea/Taggart Reply Decl. at paras. 41-42. We therefore disagree with Qwest and the other incumbent LECs who argue that the commingling restriction does not impede competitive LECs from deploying efficient network configurations. *See* SBC Comments at 108 (noting that commingling restriction precludes competitive LECs from obtaining UNEs and access services that share the same facility); BellSouth Reply at 40 (stating that competitive LECs can connect UNEs and access services at collocation arrangements); Letter from Cronan O'Connell, Vice President – Federal Regulatory, Qwest, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98 at 3 (filed Oct. 28, 2002) (Qwest Oct. 28, 2002 Transport and Commingling *Ex Parte* Letter).

[1789] ALTS *et al.* Comments at 105; ALTS/CompTel Oct. 28, 2002 *Ex Parte* Letter at 5; WorldCom Nov. 18, 2002 *Ex Parte* Letter at 15; Cbeyond Nov. 22, 2002 *Ex Parte* Letter at 13-14.

[1790] AT&T Comments at 107; Illinois Commission Comments at 5; WorldCom Reply at 32; ALTS/CompTel Oct. 28, 2002 *Ex Parte* Letter at 5; AT&T Nov. 23, 2002 *Ex Parte* Letter at 8 (arguing that commingling restriction is discriminatory).

[1791] AT&T Comments at 107 (arguing that "the co-mingling ban deprives CLECs of obtaining the same network efficiencies as the ILEC enjoys because the ILEC can place any traffic on any facility to maximize efficiency"); NewSouth Comments at 42-46; Sprint Reply at 46-48; WorldCom Apr. 30, 2001 Reply at 14; CompTel Apr. 5, 2001 Comments at 33; AT&T Apr. 30, 2001 Fea/Taggart Reply Decl. at paras. 41-42); *see* 47 C.F.R. § 51.315(b) (requiring incumbent LECs to provide access to UNEs on terms and conditions no less favorable to those under which the incumbent LEC provides such UNEs to itself). *But see* SBC Comments at 108 (noting requirement for competitive LECs to collocate in certain circumstances); Verizon Comments at 141 (acknowledging that it combines all telecommunications traffic on the same facilities); BellSouth Reply at 40 (acknowledging collocation requirement); *see* 47 C.F.R. § 51.315(b) (requiring incumbent LECs to provide access to UNEs on terms and conditions no less favorable to those under which the incumbent LECs provides such UNEs to itself).

reasons, we require incumbent LECs to effectuate commingling by modifying their interstate access service tariffs to expressly permit connections with UNEs and UNE combinations.[1792]

582. We decline, however, to require "ratcheting," which is a pricing mechanism that involves billing a single circuit at multiple rates to develop a single, blended rate.[1793] The Commission's pricing rules for UNEs already ensure that competitive LECs are paying appropriate rates for UNEs and UNE combinations, and that incumbent LECs are adequately compensated for the use of their networks. To permit ratcheting would be to create an additional series of discounts for situations in which all parties' interests are already protected.[1794] Thus, our rules permit incumbent LECs to assess the rates for UNEs (or UNE combinations) commingled with tariffed access services on an element-by-element and a service-by-service basis.[1795] This ensures that competitive LECs do not obtain an unfair discount off the prices for

[1792] We note that sections 202 and 203 of the Act provide specific penalties for noncompliance. *See* 47 U.S.C. §§ 202(c), 203(e). These amounts have been adjusted to $7,600 for each offense and $330 for each day of the continuance of the offense. 47 C.F.R. § 1.80(b)(4). Thus, any incumbent LEC policy or practice that has the effect of prohibiting commingling could subject the incumbent LEC to enforcement action for imposing an "undue or unreasonable prejudice or disadvantage" upon competitive LECs. In addition, the Commission's rules establish a five-year statute of limitations for violations of sections 202 and 203. *Id.* at § 1.80(c)(2).

[1793] CompTel Comments at 97-98 (citing *BellSouth Telecommunications, Inc. Part 69(g)(1) Public Interest Petition to Establish New Rate Elements for Switched Access Versions of BellSouth's SMARTGate Service and BellSouth SPA Managed Shared Network*, Memorandum Opinion and Order, 14 FCC Rcd 1838, 1839, para. 2, n.2 (CCB 1998) (*BellSouth Ratcheting Order*); Sprint Comments at 56, n.48; Sprint Reply at 47. As explained in the *BellSouth Ratcheting Order*, ratcheting allows special access charges to be reduced by 1/24th for each switched access voice-grade circuit on a special access DS1 or 1/672nd for each switched access voice-grade circuit on a special access DS3. *BellSouth Ratcheting Order*, 14 FCC Rcd at 1839 n.2. We note that some parties contend that any Commission rule requiring ratcheting would necessitate substantial modifications to incumbent LEC billing systems and operational procedures. *See* Letter from Glenn T. Reynolds, Vice President – Federal Regulatory, BellSouth, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 01-338 (filed Feb. 6, 2003) (BellSouth Feb. 6, 2003 Ratcheting *Ex Parte* Letter). Because we do not require ratcheting, however, we find no need to address these arguments.

[1794] Our decision not to require ratcheting does not affect a competitive LEC's ability to obtain UNEs, UNE combinations, and wholesale services. Thus, an incumbent LEC may not deny access to a UNE or UNE combination on the grounds that such UNE or UNE combination shares part of the incumbent LEC's network with access or other non-UNE services. Some competitive LECs have contended, for example, that incumbent LECs deny access to UNE combinations on the grounds that a UNE and access service share certain multiplexing equipment. *See* Letter from Brad E. Mutschelknaus *et al.*, Counsel for ALTS *et al.*, to Dorothy Attwood, Chief, Common Carrier Bureau, FCC, CC Docket No. 96-98 (filed Aug. 1, 2001) (ALTS Aug. 1, 2001 EELs *Ex Parte* Letter), *in* Letter from Steven A. Augustino, Counsel for ALTS *et al.*, to Magalie Roman Salas, Secretary, FCC, CC Docket No. 96-98 (filed Aug. 1, 2001). By eliminating the commingling restriction, we will ensure that competitive LECs will be able to obtain all available UNEs, UNE combinations, and wholesale services, albeit at the rates established pursuant to tariffs, interconnection agreements or other contracts.

[1795] *See infra* Part VII.B.

wholesale services, while at the same time ensuring that competitive LECs do not pay twice for a single facility.[1796]

583. We therefore disagree with SBC, Verizon, and others who argue in favor of adopting a permanent commingling restriction. First, we determine that the eligibility qualifications adopted herein (and applied to all conversions of a special access circuit to a high-capacity EEL; to obtaining a new high-capacity EEL; and to obtaining at UNE pricing part of a high-capacity loop-transport combination) address the universal service and access charge arguments by ensuring competitive LECs purchase UNEs for legitimate competitive purposes.[1797] Second, we conclude that the commingling restriction is no longer necessary to preserve the status quo while the Commission grapples with potential modifications to its universal service and access charge policies.[1798] We recognize that some issues remain outstanding, but we conclude that the remaining issues do not, by themselves, warrant a permanent restriction on commingling UNEs and UNE combinations with wholesale services. Third, we find that commingling does not constitute the creation of a new UNE for which an impairment analysis is required.[1799] Instead, commingling allows a competitive LEC to connect or attach a UNE or UNE combination with an interstate access service, such as high-capacity multiplexing or transport services. Because commingling will not enable a competitive LEC to obtain reduced or discounted prices on tariffed special access services because we are not requiring ratcheting,[1800] our general impairment analysis for individual UNEs is adequate. Fourth, we conclude that permitting commingling is consistent with the D.C. Circuit's *CompTel* decision. Verizon incorrectly characterizes that decision as finding that a commingling restriction is

[1796] For example, a competitive LEC connecting a UNE loop to special access interoffice transport facilities would pay UNE rates for the unbundled loops and tariffed rates for the special access service. We recognize that, at some point, competitive LECs may make a business decision to either use UNEs or wholesale services to serve a customer. For example, a competitive LEC buying UNE DS1 transport continues to add UNE DS1 transport facilities to its network. At some point, the competitive LEC will make a business decision to either buy DS3 special access (and convert its traffic onto the larger facility) or to buy UNE DS3 transport, where available and if the competitive LEC meets the service eligibility requirements.

[1797] AT&T Reply at 284; WorldCom Reply at 36. *But see* SBC Comments at 107; NECA Reply at 4-5.

[1798] ALTS *et al.* Comments at 105-06; CompTel Comments at 76-77; NuVox *et al.* Comments at 49-51 (citing *CALLS* and *MAG* Orders); Norlight Comments at 9-10; AT&T Reply at 284, 290; WorldCom Reply at 36; Letter from Joan Marsh, Director, Federal Government Affairs, AT&T, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 13 (filed Oct. 7, 2002) (AT&T Oct. 7, 2002 Transport and Commingling *Ex Parte* Letter); 13; Nov. 14, 2002 ALTS *Ex Parte* Letter at 3, 5. *But see* NECA Reply at 3; NECA Apr. 5, 2001 Comments at 3-5; TDS Apr. 5, 2001 Comments at 1-7; USTA Apr. 5, 2001 Comments at 9-11.

[1799] Letter from Brad E. Mutschelknaus, Counsel for ALTS, to Magalie Roman Salas, Secretary, FCC, CC Docket No. 96-98 at 3-5 (filed Aug. 20, 2001) (ALTS Aug. 20, 2001 EELs *Ex Parte* Letter); SBC/Verizon Apr. 5, 2001 Comments at 30.

[1800] As discussed below, we are not requiring incumbent LECs to blend the rates of a transmission facility according to the amount of UNE usage and access service usage. Thus, competitive LECs that commingle UNEs or UNE combinations with, for example, interstate access services would pay the appropriate rates for each service.

necessary because its absence would allow mass conversions.[1801] Instead, the court concluded that, based on the information submitted by the parties, it could not conclude that the Commission's prior commingling restriction was arbitrary and capricious.[1802] Further, as we explain in detail below, we obviate the risk identified by the court by applying service eligibility criteria to commingled loop-transport combinations. Finally, we conclude that the billing and operational issues raised by Verizon do not warrant a permanent commingling restriction, but instead can be addressed through the same process that applies for other changes in our unbundling requirements adopted herein, *i.e.*, through change of law provisions in interconnection agreements.[1803] We expect that change of law provisions will afford incumbent LECs sufficient time to complete all actions necessary to permit commingling.[1804]

584. As a final matter, we require that incumbent LECs permit commingling of UNEs and UNE combinations with other wholesale facilities and services, ~~including any network elements unbundled pursuant to section 271, and~~ any services offered for resale pursuant to section 251(c)(4) of the Act. Section 251(c)(4) places the duty on incumbent LECs "not to prohibit, and not to impose unreasonable or discriminatory conditions or limitations on" the resale of telecommunications services provided at retail to customers who are not telecommunications carriers.[1805] Any restriction that prevents commingling of UNEs (or UNE combinations) with resold services constitutes a limitation on both reselling the eligible service and on obtaining access to the UNE or UNE combination. We conclude that a restriction on commingling UNEs and UNE combinations with services eligible for resale is inconsistent with the section 251(c)(4) prohibition on "unreasonable . . . conditions or limitations" because it would impose additional costs on competitive LECs choosing to compete through multiple entry strategies, and because such a restriction could even require a competitive LEC to forego using efficient strategies for serving different customers and markets. We agree with ALTS that an incumbent LEC's obligations under sections 251(c)(3) and 251(c)(4) are not mutually exclusive.[1806] In addition, a restriction on obtaining UNEs and UNE combinations in conjunction with services available for resale would constitute a discriminatory condition on the resale of

[1801] Verizon Dec. 17, 2002 *Ex Parte* Letter at 5; Letter from Ann D. Berkowitz, Project Manager, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 2 (filed Jan. 30, 2003); Letter from Ann D. Berkowitz, Project Manager, Verizon, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147, Attach. at 2-3 (filed Feb 6, 2003).

[1802] *CompTel*, 309 F.3d at 17-18.

[1803] CompTel Comments at 97-98; NewSouth Comments at 41; Sprint Comments at 56; WorldCom Reply at 33-34; Sprint Reply at 47. *But see* Verizon Comments at 140. We note that, taken to its extreme, the incumbent LEC argument would prevent any modification of our UNE rules because billing and operational changes would certainly follow any such change.

[1804] For example, incumbent LECs will have to modify their interstate tariffed offerings to permit commingling of interstate access services with UNEs and UNE combinations.

[1805] 47 U.S.C. § 251(c)(4).

[1806] ALTS *et al.* Comments at 98.

24. In footnote 1623, we add a hyphen between the words "One" and "third."

25. In footnote 1623, we capitalize the first letter of the word "order" where it appears, and we remove italics from the word "*Letter*."

26. In paragraph 539, we change the second sentence to read: "In fact, the record shows that any disadvantages that competitive LECs may face in obtaining collocation space are likely outweighed by their advantage in relying solely on newer, more efficient technology."

27. In paragraph 584, we change the first sentence to read: "As a final matter, we require that incumbent LECs permit commingling of UNEs and UNE combinations with other wholesale facilities and services, including any services offered for resale pursuant to section 251(c)(4) of the Act."

28. In paragraph 593, in the third sentence, we capitalize the first letter of the word "order."

29. In footnote 1936, in the second sentence, we add the word "it" between the words "that" and "will." The sentence should read, "That is, Verizon states that it will provision . . . ."

30. In footnote 1977, we delete the last sentence.

31. In footnote 1990, we delete the last sentence.

32. In paragraph 661, in the first sentence, we add a space after the first hyphen.

33. In paragraph 661, in the fourth and fifth sentences, we replace the word "Orders" with "orders."

34. In footnote 2072, in the citation date, we replace the comma after "Oct" with a period.

35. On page 6 of Appendix B listing the final rules, we replace paragraph 51.318(b) as follows: "An incumbent LEC need not provide access to (1) an unbundled DS1 loop in combination, or commingled, with a dedicated DS1 transport or dedicated DS3 transport facility or service, or to an unbundled DS3 loop in combination, or commingled, with a dedicated DS3 transport facility or service, or (2) an unbundled dedicated DS1 transport facility in combination, or commingled, with an unbundled DS1 loop or a DS1 channel termination service, or to an unbundled dedicated DS3 transport facility in combination, or commingled, with an unbundled DS1 loop or a DS1 channel termination service, or to an unbundled DS3 loop or a DS3 channel termination service, unless the requesting telecommunications carrier certifies that all of the following conditions are met:"

36. On pages 7 and 33-35 of Appendix B listing the final rules, we replace paragraph numbering to resolve errors resulting from computer format problems, which caused some paragraph numbering to be off by one number. On pages 7 and 33-35 of Appendix B, the paragraphs numbered 10 through 15 are replaced with numbering 11 through 16, respectively.

eligible telecommunications services because incumbent LECs impose no such limitations or restrictions on their ability to combine facilities and services within their network in order to meet customer needs.[1807]

d. Conversions

585. We decline the suggestions of several parties to adopt rules establishing specific procedures and processes that incumbent LECs and competitive LECs must follow to convert wholesale services (*e.g.*, special access services offered pursuant to interstate tariff) to UNEs or UNE combinations, and the reverse, *i.e.*, converting UNEs or UNE combinations to wholesale services.[1808] Because both the incumbent LEC and requesting carriers have an incentive to ensure correct payment for services rendered, and because both parties are bound by duties to negotiate in good faith, we conclude that these carriers can establish any necessary procedures to perform conversions with minimal guidance on our part.

586. We conclude that carriers may both convert UNEs and UNE combinations to wholesale services and convert wholesale services to UNEs and UNE combinations, so long as the competitive LEC meets the eligibility criteria that may be applicable. To the extent a competitive LEC fails to meet the eligibility criteria for serving a particular customer, the serving incumbent LEC may convert the UNE or UNE combination to the equivalent wholesale service in accordance with the procedures established between the parties. Likewise, to the extent a competitive LEC meets the eligibility requirements and a particular network element is available as a UNE pursuant to our impairment analysis, it may convert the wholesale service used to serve a customer to UNEs or UNE combinations in accordance with the relevant procedures. Converting between wholesale services and UNEs or UNE combinations should be a seamless process that does not affect the customer's perception of service quality.[1809] We recognize that conversions may increase the risk of service disruptions to competitive LEC customers because they often require a competitive LEC to groom interexchange traffic off circuits and equipment that are already in use in order to comply with the eligibility criteria.[1810]

[1807] *See, e.g.*, AT&T Comments at 107; NewSouth Comments at 42-46; Sprint Reply at 46-48.

[1808] *See* ALTS *et al.* Comments at 101 (arguing that the Commission should establish explicit time period for effectuating conversions); Focal Apr. 30, 2001 Reply at 6-7. We therefore grant in part WorldCom's request to clarify that competitive LECs may convert existing special access services to combinations of loop and transport network elements, but only to the extent such conversions meet the service eligibility criteria for EELs adopted herein. MCI WorldCom Feb. 17, 2000 Petition for Clarification at 24. Furthermore, we dismiss as moot Intermedia's request to issue another supplementary order clarifying that incumbent LECs must make available loop and transport network elements that are currently combined as tariffed special access services. Intermedia Feb. 17, 2000 Petition for Reconsideration at 14-15.

[1809] We note that no party seriously contends that it is technically infeasible to convert UNEs and UNE combinations to wholesale services and vice versa.

[1810] WorldCom explains that the grooming process requires "submission of circuit-level disconnect orders, and circuit-level reconnect orders" during limited periods of time in order to segregate telecommunications traffic onto the redundant facilities required by the commingling restriction. WorldCom Apr. 5, 2001 Comments at 37-38. *See* (continued....)

requires BOCs to provide access to loops, switching, transport, and signaling regardless of impairment under section 251.[1978] Z-Tel further argues that competitors are entitled to access to loops, switching, transport, and signaling at TELRIC rates, even if the Commission were to remove these items from the list of UNEs under section 251.[1979] For the reasons outlined below, we reaffirm that BOCs have an independent obligation, under section 271(c)(2)(B), to provide access to certain network elements that are no longer subject to unbundling under section 251, and to do so at just and reasonable rates.

2. Discussion

653. *Independent Access Obligation.* For reasons set forth below, we continue to believe that the requirements of section 271(c)(2)(B) establish an independent obligation for BOCs to provide access to loops, switching, transport, and signaling regardless of any unbundling analysis under section 251.

654. First, the plain language and the structure of section 271(c)(2)(B) establish that BOCs have an independent and ongoing access obligation under section 271. Checklist item 2 requires compliance with the general unbundling obligations of section 251(c)(3) and of section 251(d)(2) which cross-references section 251(c)(3).[1980] Checklist items 4, 5, 6, and 10 separately impose access requirements regarding loop, transport, switching, and signaling,[1981] without mentioning section 251. Had Congress intended to have these later checklist items subject to section 251, it would have explicitly done so as it did in checklist item 2.[1982] Moreover, were we to conclude otherwise, we would necessarily render checklist items 4, 5, 6, and 10 entirely redundant and duplicative of checklist item 2 and thus violate one of the enduring tenets of statutory construction: to give effect, if possible, to every clause and word of a statute.[1983] Verizon asserts that an interpretation of the Act that recognizes the independence of sections 271

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related argument that BOCs that offer access to delisted checklist items pursuant to section 271 alone are under no obligation to combine the elements for requesting carriers. Verizon Reply at 59.

[1978] ALTS *et al.* Comments at 117-18; NuVox *et al.* Comments at 115-16; CompTel Comments at 20; UNE-P Coalition Comments at 17; Z-Tel Comments at 4-15.

[1979] Z-Tel Comments at 7; *see also* UNE-P Coalition Reply at 37 (noting that the "Coalition agrees with Z-Tel . . .").

[1980] *See* 47 U.S.C. § 271(c)(2)(B)(ii).

[1981] *See* 47 U.S.C. § 271(c)(2)(B)(iv), (v), (vi), (x).

[1982] *Bates v. U.S.*, 522 U.S. 23, 29-30 (1997) (stating that "[w]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.") (internal quotation marks omitted). As such, our decision is entitled to deference because the interpretation involves matters about which the Act is silent. *Chevron*, 467 U.S. at 843.

[1983] *See United States v. Menasche*, 348 U.S. 528, 538-39 (1955).

and 251(d)(2) places these sections in conflict with each other.[1984] We disagree. Verizon's reading of section 271 would provide no reason for Congress to have enacted items 4, 5, 6, and 10 of the checklist because checklist item 2 would have sufficed.

655. Second, it is reasonable to interpret section 251 and 271 as operating independently. Section 251, by its own terms, applies to *all* incumbent LECs, and section 271 applies only to BOCs, a subset of incumbent LECs.[1985] In fact, section 271 places specific requirements on BOCs that were not listed in section 251. These additional requirements reflect Congress' concern, repeatedly recognized by the Commission and courts, with balancing the BOCs' entry into the long distance market with increased presence of competitors in the local market.[1986] Before the 1996 Act's passage, the BOCs, the local progeny of the once-integrated Bell system, were barred by the terms of the MFJ from entering certain lines of business, including providing interLATA services.[1987] The ban on BOC provision of long distance services was based on the MFJ court's determination that such a restriction was "clearly necessary to preserve free competition in the interexchange market."[1988] The protection of the interexchange market is reflected in the fact that section 271 primarily places in each BOC's hands the ability to determine if and when it will enter the long distance market. If the BOC is unwilling to open its local telecommunications markets to competition or apply for relief, the interexchange market remains protected because the BOC will not receive section 271 authorization. The same historical underpinning, however, is not relevant to section 251, which is a mandatory provision designed to ensure a minimum level of openness in the local market. Therefore, we reject Verizon's claim that any interpretation of section 271 that recognizes its independence from section 251 would improperly single out BOCs for treatment different from other incumbent LECs.[1989] As explained above, recognizing an independent obligation on BOCs under section 271 would by no means be inconsistent with the structure of the statute. Section 271 was written for the very purpose of establishing specific conditions of entry into the long distance that are

[1984] Verizon Comments at 67; Verizon Reply at 54-55.

[1985] This fact alone demonstrates that section 271 is not dependent on section 251 because a more limited set of carriers was made subject to the demands of section 271. It is consistent with norms of statutory construction that section 251 as a general statutory provision does not control the more specific section 271. *See Gozlon-Peretz v. United States*, 498 U.S. 395 (1991) (a specific provision controls over one of a more general application).

[1986] Section 271 is the direct progeny of the Modification of Final Judgment (MFJ) that contained the terms of the settlement of the Department of Justice's antitrust suit against AT&T. *See United States v. Western Elec. Co.*, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom., Maryland v. United States*, 460 U.S. 1001 (1983). The MFJ sought to avoid the emergence of an unregulated telecommunications monopoly by imposing specific line-of-business restrictions that explicitly barred the BOCs from providing service for calls that occurred between LATAs. Although the Telecommunications Act of 1996 generally superseded the MFJ, section 271 conditionally continued the interLATA line-of-business restriction in the form of the competitive checklist.

[1987] The MFJ contained the terms of the settlement of the Department of Justice's antitrust suit against AT&T. *See id.*

[1988] *Id.* at 188.

[1989] Verizon Comments at 67; Verizon Reply at 54-55.

unique to the BOCs. As such, BOC obligations under section 271 are not necessarily relieved based on any determination we make under the section 251 unbundling analysis.[1990]

656. *Prices, Terms and Conditions.* It is a different question, however, as to what pricing standard applies to network elements that are unbundled by BOCs solely because of the requirements set forth in section 271. Where there is no impairment under section 251 and a network element is no longer subject to unbundling, we look to section 271 and elsewhere in the Act to determine the proper standard for evaluating the terms, conditions, and pricing under which a BOC must provide the checklist network elements. Contrary to the claims of some commenters, TELRIC pricing for checklist network elements that have been removed from the list of section 251 UNEs is neither mandated by statute nor necessary to protect the public interest. Rather, Congress established a pricing standard under section 252 for network elements unbundled pursuant to section 251 *where impairment is found to exist.* Here, however, we are discussing the appropriate pricing standard for these network elements where there is no impairment. Under the no impairment scenario, section 271 requires these elements to be unbundled, but not using the statutorily mandated rate under section 252. As set forth below, we find that the appropriate inquiry for network elements required only under section 271 is to assess whether they are priced on a just, reasonable and not unreasonably discriminatory basis – the standards set forth in sections 201 and 202.[1991]

657. By their own terms, neither section 252(d)(1) nor section 271(c)(2)(B) requires that the section 252(d)(1) pricing standard be applied to checklist network elements. Section 252(d)(1) provides the pricing standard "for network elements for purposes of [section 251(c)(3)],"[1992] and does not, by its terms, apply to network elements that are required only under section 271. Indeed, section 252(d)(1) is quite specific that it only applies for the purposes of implementation of section 251(c)(3) – meaning only where there has been a finding of impairment with regard to a given network element. Moreover, as noted above, while checklist item 2 provides that a BOC must provide access to UNEs "in accordance with the requirements of sections 251(c)(3) and 252(d)(1)," the checklist items establishing the specific, separate network element obligations do not contain this language. We disagree with Z-Tel's argument that the cross-reference in checklist item 2 should be read into the later checklist items, and is implicit in them.[1993] Reading this language into these provisions would change their plain meaning, and Z-Tel offers no indication that this is what Congress intended. Moreover, we

[1990] We decline to require BOCs, pursuant to section 271, to combine network elements that no longer are required to be unbundled under section 251. Unlike section 251(c)(3), items 4-6 and 10 of section 271's competitive checklist contain no mention of "combining" and, as noted above, do not refer back to the combination requirement set forth in section 251(c)(3). We also decline to apply our commingling rule, set forth in Part VII.A. above, to services that must be offered pursuant to these checklist items.

[1991] 47 U.S.C. §§ 201, 202.

[1992] *Id.* § 252(d)(1).

[1993] Letter from Christopher J. Wright, Counsel for Z-Tel, to Marlene H. Dortch, Secretary, FCC, CC Docket 01-338 at 11 (filed Dec. 20, 2002) (Z-Tel Dec. 20, 2002 *Ex Parte* Letter).

reject Z-Tel's argument that the cross-references were omitted simply to conserve space or to avoid repetition.[1994] To the contrary, we find Congress' decision to omit cross-references particularly meaningful in this instance: half of the checklist items contain explicit cross-references to other statutory provisions, and it is reasonable to conclude that Congress would have inserted a cross-reference into items 4-6 and 10 had that been its intention.

658. We also decline to use section 271, as suggested by Z-Tel, to broaden the unbundling obligations of section 251. Z-Tel notes that section 251(d)(2) directs the Commission to consider "impair[ment]" "at a minimum" in determining which network elements must be unbundled, and thus argues that the Commission may require unbundling pursuant to section 251 and 252 even in the absence of an impairment finding.[1995] In analyzing section 252(d)(2) the D.C. Circuit in *USTA* determined that the "at a minimum" language potentially could justify the imposition of unbundling obligations under that provision even in the "absence" of impairment.[1996] However, the *USTA* decision contained key limitations to the exercise of such authority. In order to apply the "at a minimum" language in the absence of impairment, the *USTA* court required that the Commission "point to something a bit more concrete than its belief in the beneficence of the widest unbundling possible."[1997] Were we to accept Z-Tel's argument, we would again impose a virtually unlimited standard to unbundling, based on little more than faith that more unbundling is better, regardless of context. Checklist items 4 through 6 and 10 do not require us to impose unbundling pursuant to section 251(d)(2). Rather, the checklist independently imposes unbundling obligations, but simply does so with less rigid accompanying conditions.

659. In interpreting section 271(c)(2)(B), we are guided by the familiar rule of statutory construction that, where possible, provisions of a statute should be read so as not to create a conflict.[1998] So if, for example, pursuant to section 251, competitive entrants are found not to be "impaired" without access to unbundled switching at TELRIC rates, the question becomes whether BOCs are required to provide unbundled switching at TELRIC rates pursuant to section 271(c)(2)(B)(vi). In order to read the provisions so as not to create a conflict, we conclude that section 271 requires BOCs to provide unbundled access to elements not required to be unbundled under section 251, but does not require TELRIC pricing. This interpretation allows us to reconcile the interrelated terms of the Act so that one provision (section 271) does not gratuitously reimpose the very same requirements that another provision (section 251) has eliminated.

[1994] Z-Tel Dec. 20, 2002 *Ex Parte* Letter at 11.

[1995] Z-Tel Comments at 17.

[1996] *USTA*, 290 F.3d at 425.

[1997] *Id.*

[1998] *See Washington Market Co. v. Hoffman*, 101 U.S. 112 (1879).

660. We reject arguments by Z-Tel and certain other competitive LECs that the proper way to reconcile any such conflict is to find that our section 251 impairment determinations with respect to unbundled local loops, switching and transport would apply only to non-BOC incumbent LECs.[1999] Z-Tel's argument posits that particular network elements enumerated in the section 271 checklist are the "core" elements, and thus concludes that while the standards in section 251 would still apply to all carriers as to any network elements not mentioned in the checklist, section 271 requirements (as construed by Z-Tel) would supercede section 251 standards as to the most critical network elements delineated by Congress. We think that this reading of the two provisions is illogical. BOCs control 85.9 percent of incumbent LEC local switched access lines.[2000] Of the remaining lines, 11.6 percent of the lines are served by certain rural telephone companies that section 251(f) expressly exempts from the unbundling obligations set forth in 251(c). So, under the Z-Tel interpretation of sections 251 and 271, Z-Tel would have section 251(c), which is arguably the most important market-opening provision of the Act, apply to a mere 2.5 percent of incumbent LEC lines on the issues and facilities that matter most to local competition.[2001] The section 271 checklist cannot be read to have such a broad effect – while it does set forth particular conditions Congress wished to impose on entry into the in-region interLATA market, Congress could not have intended the checklist to render section 251 itself superfluous.

661. Our recognition that pricing pursuant to section 252 does not apply to network elements that are not required to be unbundled is consistent with the Commission's general approach in the *UNE Remand Order*, and has been applied –apparently with no adverse effect – with respect to access to directory assistance and operator services. The Commission removed directory assistance and operator services from the list of UNEs in the *UNE Remand Order*.[2002] These network elements, like loops, transport, switching and signaling databases, are separately listed in the competitive checklist.[2003] Accordingly, as explained in subsequent section 271 Orders, access to directory assistance and operator services remains a condition of long distance entry – but the standard applicable to rates and conditions is not derived from sections 251 and 252.[2004] We note that no party has sought to overturn this aspect of the seventeen section 271 Orders that have applied this analysis since directory assistance and operator services were removed from the list of section 251 UNEs, and no party has suggested in this proceeding that the Commission's interpretation of the statute has produced a perverse policy impact with respect to a BOC's provision of these network elements.

[1999] Z-Tel Comments at 7-8.

[2000] *Federal Universal Service Support Mechanisms Fund Size Projections for the First Quarter 2003*, Submitted by the Universal Service Administrative Company (filed Nov. 1, 2002).

[2001] *Id.*

[2002] *UNE Remand Order*, 15 FCC Rcd at 3891-92, paras. 441-42.

[2003] *See* 47 U.S.C. § 271(c)(2)(B)(vii)(II)-(III).

[2004] *See, e.g., SWBT Texas 271 Order*, 15 FCC Rcd at 18527, para. 348.

662. We note, however, that in the *UNE Remand Order* the Commission stated that "[i]f a checklist network element is unbundled, the applicable prices, terms and conditions are determined in accordance with sections 251 and 252. If a checklist network element does not satisfy the unbundling standards in section 251(d)(2), the applicable prices, terms and conditions for that element are determined in accordance with sections 201(b) and 202(a)."[2005] We reach essentially the same result here, but we clarify our reasoning below.

663. The Supreme Court has held that the last sentence of section 201(b), which authorizes the Commission "to prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this Act," empowers the Commission to adopt rules that implement the new provisions of the Communications Act that were added by the Telecommunications Act of 1996.[2006] Section 271 is such a provision.[2007] Thus, the pricing of checklist network elements that do not satisfy the unbundling standards in section 251(d)(2) are reviewed utilizing the basic just, reasonable, and nondiscriminatory rate standard of sections 201 and 202 that is fundamental to common carrier regulation that has historically been applied under most federal and state statutes, including (for interstate services) the Communications Act.[2008] Application of the just and reasonable and nondiscriminatory pricing standard of sections 201 and 202 advances Congress's intent that Bell companies provide meaningful access to network elements.

664. Whether a particular checklist element's rate satisfies the just and reasonable pricing standard of section 201 and 202 is a fact-specific inquiry that the Commission will undertake in the context of a BOC's application for section 271 authority or in an enforcement proceeding brought pursuant to section 271(d)(6). We note, however, that for a given purchasing carrier, a BOC might satisfy this standard by demonstrating that the rate for a section 271 network element is at or below the rate at which the BOC offers comparable functions to similarly situated purchasing carriers under its interstate access tariff, to the extent such analogues exist. Alternatively, a BOC might demonstrate that the rate at which it offers a section 271 network element is reasonable by showing that it has entered into arms-length agreements with other, similarly situated purchasing carriers to provide the element at that rate.

665. *Post Entry Requirements.* In the event a BOC has already received section 271 authorization, section 271(d)(6) grants the Commission enforcement authority to ensure that the BOC continues to comply with the market opening requirements of section 271. In particular,

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[2005] *UNE Remand Order*, 15 FCC Rcd at 3905, para. 470.

[2006] *Iowa Utils. Bd.*, 525 U.S. at 377-81.

[2007] The Court found that this grant of authority was "unaffected by" the jurisdictional limitation regarding intrastate matters that was contained in section 2(b) of the 1934 Act. *Id.* at 379. The Court found that since new sections 251 and 252 applied to interstate as well as intrastate matters, section 201(b) authorized the Commission to adopt rules implementing the full scope of those provisions. *Id.* at 379-81.

[2008] *See* 47 U.S.C. §§ 201(b), 202(a). Therefore, we reject the argument of Z-Tel that section 252(d)(1) is the only basis for the Commission to evaluate checklist elements not required to be unbundled under section 251.

this section provides the Commission with enforcement authority where a BOC "has ceased to meet any of the conditions required for such approval."[2009] We conclude that for purposes of section 271(d)(6), BOCs must continue to comply with any conditions required for approval, consistent with changes in the law. While we believe that section 271(d)(6) established an ongoing duty for BOCs to remain in compliance, we do not believe that Congress intended that the "conditions required for such approval" would not change with time. Absent such a reading, the Commission would be in a position where it was imposing different backsliding requirements on BOCs solely based on date of section 271 entry, rather than based on the law as it currently exists. We reject this approach as antithetical to public policy because it would require the enforcement of out-of-date or even vacated rules.

666. Two commenters in this proceeding ask the Commission to adopt special procedural vehicles for re-examining section 271 authorizations, in light of potential rule changes that would change a BOC's obligations under section 251. First, Z-Tel asserts that the Commission must revisit every section 271 authorization to consider "[a]ny significant change to the availability of the UNE platform."[2010] Second, Talk America asks the Commission to adopt a procedure that would freeze in place a BOC's unbundling obligations under section 251, at least pending a review of potential backsliding under section 271(d)(6).[2011] Specifically, Talk America contends that, for a BOC that has previously received section 271 authorization, the "anti-backsliding" requirements of section 271(d)(6) would require it to continue providing unbundled local switching (and UNE-P) at TELRIC prices in the event it is no longer required to do so under section 251. Talk America suggests that any rule change that lessens a BOC's obligation to provide access to unbundled switching could decrease the level of facilities-based competition in either residential or business markets, thereby potentially causing a "backsliding" violation under section 271(d)(6) to the extent the BOC relied on UNE-P based competition to support its showing under section 271(c)(1)(A) (Track A). Accordingly, to address this risk of this type of "backsliding," Talk America would require BOCs to file a petition with the Commission – *before* they may be permitted to cease providing switching and UNE-P at TELRIC-based rates – demonstrating the existence of facilities-based competition from carriers that do not rely in any material part on the availability of unbundled local switching or UNE-P at TELRIC-based rates.[2012]

667. We decline to adopt the extraordinary procedural steps requested by Z-Tel and Talk America. With respect to Talk America's proposal, by reexamining whether a BOC

[2009] 47 U.S.C. § 271(d)(6).

[2010] Z-Tel Comments at 83-84.

[2011] Letter from Brad A. Mutschelknaus, Counsel for Talk America and Broadview Networks, to Marlene H. Dortch, Secretary, FCC, CC Docket Nos. 01-338, 96-98, 98-147 at 15 (filed Dec. 6, 2002) (Talk America/Broadview Networks Dec. 6, 2002 *Ex Parte* Letter); *see also* Letter from Brad A. Mutschelknaus, Counsel for Talk America, to Marlene H. Dortch, Secretary, FCC, CC Docket 01-338 at 3 (filed Dec. 30, 2002) (Talk America Dec. 30, 2002 *Ex Parte* Letter).

[2012] Talk America Dec. 30, 2002 *Ex Parte* Letter at 3.

continues to qualify for "Track A" *before* conditions change in the market ignores the reality that competitors may take steps to retain customers served by UNE-P. For example, it is entirely possible that a competitive LEC may transition customers from UNE-P to an arrangement using unbundled loops combined with its own switching – thereby retaining the same level of facilities-based competition. Accordingly, the before-the-fact review proposed by Talk America would necessarily require speculation and would hold a BOC to a higher standard than under its initial section 271 application. Finally, there is no suggestion that the procedure proposed by Talk America is necessary to detect discrimination or bad conduct – indeed, the harm alleged by Talk America would result from a BOC's *compliance with* federal unbundling rules. Accordingly, we do not believe the public interest warrants adoption of this special procedural step. For similar reasons, we decline Z-Tel's request to "revisit" every section 271 authorization to consider changes regarding UNE-P.

B. Clarification of TELRIC Rules

1. Background

668. Section 252(d)(1) of the Act provides that rates for interconnection and unbundled elements shall be "based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element" and "may include a reasonable profit."[2013] In the *Local Competition Order*, the Commission adopted guidelines to be applied by state commissions when they are called on to arbitrate disputes regarding the prices for interconnection and UNEs pursuant to section 252(d).[2014] Specifically, the Commission adopted a forward-looking economic cost methodology, which it called "Total Element Long Run Incremental Cost" or "TELRIC." The Supreme Court affirmed the Commission's TELRIC rules in *Verizon v. FCC*.[2015]

669. Based on the Commission's finding that prices in a competitive market will tend towards long-run incremental cost,[2016] the TELRIC methodology is designed to derive prices for particular elements in the incumbent LEC's network that "replicate[], to the extent possible," what the incumbent LEC would be able to charge in a competitive market.[2017] Specifically, TELRIC equates the current market value of the existing network of an incumbent telecommunications provider with the cost the incumbent LEC would incur today if it built a

[2013] 47 U.S.C. § 252(d)(1).

[2014] *Local Competition Order*, 11 FCC Rcd at 15515, para. 29. The Commission also concluded that rates for reciprocal compensation under section 252(d)(2) should be based on the same principles. *Id.* at 16023, para. 1054.

[2015] *Verizon*, 535 U.S. at 467.

[2016] *Local Competition Order*, 11 FCC Rcd at 15845, para. 675.

[2017] *Id.* at 15846, para. 679.