

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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| In the Matter of |) | |
| |) | |
| Application of Verizon New England Inc., Bell |) | |
| Atlantic Communications, Inc. (d/b/a Verizon |) | |
| Long Distance), NYNEX Long Distance |) | CC Docket No. 01-9 |
| Company (d/b/a Verizon Enterprise Solutions) |) | |
| And Verizon Global Networks Inc., |) | |
| For Authorization to Provide In-Region, |) | |
| InterLATA Services in Massachusetts |) | |

MEMORANDUM OPINION AND ORDER

Adopted: April 16, 2001

Released: April 16, 2001

By the Commission: Chairman Powell and Commissioner Ness issuing separate statements; Commissioner Furchtgott-Roth concurring and issuing a statement; and Commissioner Tristani dissenting and issuing a statement.

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I. INTRODUCTION

1. On January 16, 2001, Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), and Verizon Global Networks Inc. (Verizon) filed this application pursuant to section

271 of the Communications Act of 1934, as amended,¹ for authority to provide in-region, interLATA service originating in the state of Massachusetts.² We grant this application in this Order based on our conclusion that Verizon has taken the statutorily required steps to open its local exchange markets to competition in Massachusetts.

2. In approving this application, we wish to recognize the hard work of the Massachusetts Department of Telecommunications and Energy (Massachusetts Department) in laying the foundation for approval of this application. The Massachusetts Department has conducted critically important proceedings concerning Verizon's section 271 compliance open to participation by all interested parties. The Massachusetts Department and Verizon also provided for third-party testing of Verizon's operations support systems (OSS) offering. In addition, the Massachusetts Department adopted a broad range of performance measures and standards and a Performance Assurance Plan designed to create a financial incentive for post-entry compliance with section 271. State proceedings such as these serve a vitally important role in the overall section 271 approval process.

3. We also commend Verizon for all of the work that it has undertaken to open its local exchange market to competition in Massachusetts. For example, Verizon states that competitive local exchange carriers (competitive LECs) serve more than 513,000 lines on a facilities basis in Massachusetts, with Verizon providing more than 333,000 interconnection trunks and 1,700 collocation nodes to competitive LECs. Verizon also states that it provides more than 93,000 unbundled local loops, including more than 69,000 stand-alone unbundled local loops and more than 23,000 unbundled loops provided as part of an unbundled network element platform (UNE-P). There is also an active resale market in Massachusetts. Verizon states that it provides more than 268,000 resold local exchange lines, including 238,000 business lines and 30,000 residential lines. These results bear out the fact that Verizon has made extensive efforts to open its local markets in compliance with the requirements of the Act.³

II. BACKGROUND

A. History of this Application

4. In the 1996 amendments to the Communications Act, Congress required that the Bell Operating Companies (BOCs) demonstrate compliance with certain market opening requirements contained in section 271 of the Act prior to entering the in-region, interLATA market. Congress also provided for Commission review of BOC applications to provide such

¹ In 1996, Congress amended the Communications Act of 1934 to foster the development of local exchange competition, among other things. The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996). We refer to the Communications Act of 1934, as amended by the Telecommunications Act of 1996, as the Communications Act or the Act.

² Supplemental Filing of Verizon New England, CC Docket No. 01-9 (filed Jan. 16, 2001) (Verizon Massachusetts II Application).

³ *See id.* Attach. A.

services in consultation with the affected state and the Attorney General. The Commission has summarized the applicable statutory framework in a number of prior orders and need not repeat this material here.⁴

5. On May 24, 1999, Verizon filed a draft section 271 application with the Massachusetts Department.⁵ The Massachusetts Department conducted a sixteen-month investigation of Verizon's compliance with section 271. These proceedings were open to full participation by all interested parties. This process included: a comprehensive third-party test of Verizon's OSS; numerous technical sessions with the Department's staff, Verizon and many competitive LECs; a series of public hearings and oral arguments; and hundreds of information requests.

6. In August of 1999, the Massachusetts Department contracted with KPMG consulting, L.L.C. to perform a third-party test of Verizon's OSS performance. In January 2000, the Massachusetts Department adopted the performance metrics developed in the New York carrier-to-carrier proceeding as the metrics to be used and replicated by KPMG in evaluating Verizon's performance in Massachusetts.⁶ On September 7, 2000, KPMG issued its final report, which found that Verizon satisfied 800 of 804 test points relating to its review of Verizon's OSS.⁷

7. Verizon filed its initial application for section 271 authority for the state of Massachusetts (the Massachusetts I Application) on September 22, 2000,⁸ but later chose to

⁴ See, e.g., *Joint Application by SBC Communications Inc., Southwestern Bell Tel. Co., and Southwestern Bell Communications Services, Inc., d/b/a Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma*, Memorandum Opinion and Order, FCC 01-29, CC Docket No. 00-217, paras. 7-10 (rel. Jan. 22, 2001) (*SWBT Kansas/Oklahoma Order*); *Application by SBC Communications Inc., Southwestern Bell Tel. Co., and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Texas*, Memorandum Opinion and Order, 15 FCC Rcd 18354, 18359-61, paras. 8-11 (2000) (*SWBT Texas Order*); *Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York*, Memorandum Opinion and Order, 15 FCC Rcd 3953, 3961-63, paras. 17-20 (1999) (*Bell Atlantic New York Order*).

⁵ See Verizon Massachusetts I Application App. B, Vol. 1a-aa, Tab 2 (Massachusetts DTE, D.T.E. 99-271, *Inquiry by the Department of Telecommunications and Energy pursuant to Section 271 of the Telecommunications Act of 1996 into the Compliance Filing of New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts as part of its application to the Federal Communications Commission for entry into the in-region interLATA (long distance) telephone market*).

⁶ See Verizon Massachusetts I Application App. B, Vol. 24, Tab 282 (Massachusetts DTE, D.P.U. 99-271, *Evaluation of Bell Atlantic-Massachusetts Operations Support Systems: Final Attachment A to 11/19/99 Letter Order on Final Master Test Plan* (Jan. 14, 2000)).

⁷ See generally Verizon Massachusetts I Application App. I, Vol. 1a-b (KPMG Final Report).

⁸ Application by Verizon New England for Authorization to Provide In-Region, InterLATA Services in Massachusetts, CC Docket No. 00-176 (filed Sept. 22, 2000) (Verizon Massachusetts I Application).

withdraw it.⁹ Verizon filed another application for Massachusetts (the Massachusetts II Application) on January 16, 2001.¹⁰ The Massachusetts II Application incorporates the material in the original application by reference to demonstrate compliance with most of the section 271 requirements. It also provides additional information concerning Verizon's provision of DSL-capable local loops, the availability of loop make-up information and line sharing. In addition, competitive LECs now have access to Verizon's carrier specific performance data.¹¹

B. Evaluations of Massachusetts Department and Department of Justice

8. The Massachusetts Department supports Verizon's application to provide in-region, interLATA long distance service originating in Massachusetts. Specifically, it concluded that Verizon had met the requirements of section 271, and urged the Commission to approve Verizon's in-region, interLATA entry in both its October 16, 2000 evaluation of the Massachusetts I Application,¹² and its February 6, 2001 evaluation of the Massachusetts II Application.¹³

9. The Department of Justice filed its evaluation of Verizon's Massachusetts I Application on October 27, 2000.¹⁴ It recommended that the Commission not approve the application until Verizon had demonstrated that it provides nondiscriminatory access to DSL-capable loops and established suitable performance measures with unambiguous benchmarks for DSL-capable loops.¹⁵ The Department of Justice submitted an evaluation of Verizon's

⁹ See Letter from Michael E. Glover, Senior Vice President & Deputy General Counsel, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 (filed Dec. 18, 2000).

¹⁰ Verizon Massachusetts II Application.

¹¹ The availability of this information plays a critical role in the ability of competitive LECs to participate in the section 271 application review process.

¹² Evaluation of the Massachusetts Department of Telecommunications and Energy, CC Docket No. 00-176 (filed October 16, 2000) (Massachusetts Department Massachusetts I Comments). On November 3, 2000, the Massachusetts Department filed its reply (Massachusetts Department Massachusetts I Reply).

¹³ Evaluation of the Massachusetts Department of Telecommunications and Energy, CC Docket No. 01-9 (filed February 6, 2001) (Massachusetts Department Massachusetts II Comments). On February 28, 2001, the Massachusetts Department filed its second reply (Massachusetts Department Massachusetts II Reply).

¹⁴ Evaluation of the United States Department of Justice, CC Docket No. 00-176 (filed October 27, 2000) (Department of Justice Massachusetts I Evaluation).

¹⁵ See Department of Justice Massachusetts I Evaluation at 2. The Department of Justice found that, "although Verizon has satisfied this standard in most respects, important issues remain inadequately addressed." *Id.* It noted that the principal issue on which Verizon had failed to develop an adequate record was its provision of DSL-capable loops. See *id.* The Department concluded that Verizon had not yet demonstrated that it provides nondiscriminatory access to DSL-capable loops, including line sharing, or that adequate performance mechanisms were in place to deter backsliding. See *id.* at 24. The Department of Justice recommended that we not permit Verizon to offer interLATA services in Massachusetts until Verizon demonstrated that it has resolved these shortcomings. See *id.* at 3.

Massachusetts II Application on February 21, 2001.¹⁶ It recognized that a “number of changes have taken place” since it filed its evaluation of the Massachusetts I Application and acknowledged that the second Verizon application “shows improvement in some aspects of Verizon’s performance in providing access to DSL loops,” although it highlighted several remaining disputed issues related to the provision of nondiscriminatory access to DSL-capable loops.¹⁷ The Department of Justice stated that it was unable to resolve those remaining issues based on the record on file at the time of its evaluation.¹⁸ As a result, it stated that it could not find at that stage of the proceeding that Verizon had adequately demonstrated its ability to provide nondiscriminatory access to DSL-capable loops.¹⁹ Recognizing that its evaluation reflected only the evidence in the record at the time of its evaluation, however, the Department of Justice urged the Commission to consider the full record -- as it developed in reply comments and *ex parte* submissions -- in its final determination.²⁰

III. PROCEDURAL AND ANALYTICAL FRAMEWORK

10. To determine whether a BOC applicant has met the prerequisites for entry into the long distance market, we evaluate its compliance with the competitive checklist, as developed in our local competition rules and orders in effect at the time the application was filed. Despite the comprehensiveness of our rules, there will inevitably be, in any section 271 proceeding, disputes over an incumbent LEC’s precise obligations to its competitors that our rules have not addressed and that do not involve *per se* violations of self-executing requirements of the Act. As the Commission has explained in prior orders, the section 271 process simply could not function as Congress intended if we resolved all such disputes as a precondition to granting a section 271 application.²¹ In prior orders, the Commission has explained the procedural rules it has developed

¹⁶ Evaluation of the United States Department of Justice, CC Docket No. 00-176 (filed February 21, 2001) (Department of Justice Massachusetts II Evaluation).

¹⁷ Department of Justice Massachusetts II Evaluation at 2-3. For example, the Department of Justice noted, among other things, that: (1) Verizon and the competing carriers modified, and the Massachusetts Department adopted, the carrier-to-carrier measures for DSL-capable loop performance and created a set of measures for line sharing; (2) Verizon submitted to the Massachusetts Department changes to its performance assurance plan, proposing to add additional DSL-capable loop and line sharing measurements and make DSL a separate mode of entry; (3) Verizon’s separate data affiliate, Verizon Advanced Data, Inc. (VADI), became fully operational in Massachusetts; (4) Verizon agreed to proceed with the development and deployment of a mechanism to provide competing carriers with electronic access to loop make-up information; and (5) Verizon conducted re-inspections of line sharing related collocation work, enabled some line sharing orders to flow through its systems without manual intervention, and established a wholesale service center dedicated to DSL-capable loops and line sharing. *See id.*

¹⁸ *See* Department of Justice Massachusetts II Evaluation at 3, 14; *see also id.* at 7-14 (describing issues in dispute).

¹⁹ *See id.* at 14.

²⁰ *See id.* at 15 & n.61.

²¹ *See SWBT Kansas/Oklahoma Order* at para. 19; *see also American Tel. & Tel. Co. v. FCC*, 220 F.3d 607, 631 (D.C. Cir. 2000).

to facilitate the review process.²² Here we describe how we consider the evidence of compliance that Verizon has presented to us in this proceeding.

11. As part of our determination that a BOC has satisfied the requirements of section 271, we consider whether the BOC has fully implemented the competitive checklist in subsection (c)(2)(B). The BOC at all times bears the burden of proof of compliance with section 271, even if no party challenges its compliance with a particular requirement. In demonstrating its compliance, a BOC must show that it has a concrete and specific legal obligation to furnish the item upon request pursuant to state-approved interconnection agreements that set forth prices and other terms and conditions for each checklist item, and that it is currently furnishing, or is ready to furnish, the checklist items in quantities that competitors may reasonably demand and at an acceptable level of quality.²³ In particular, the BOC must demonstrate that it is offering interconnection and access to network elements on a nondiscriminatory basis.²⁴ Previous Commission orders addressing section 271 applications have elaborated on this statutory standard.²⁵ First, for those functions the BOC provides to competing carriers that are analogous to the functions a BOC provides to itself in connection with its own retail service offerings, the BOC must provide access to competing carriers in “substantially the same time and manner” as it provides to itself.²⁶ For those functions that have no retail analogue, the BOC must demonstrate that the access it provides to competing carriers would offer an efficient carrier a “meaningful opportunity to compete.”²⁷

12. In past orders, the Commission has found that the most probative evidence of nondiscriminatory access to interconnection and UNEs is actual commercial usage, and “[p]erformance measures are an especially effective means of providing us with evidence of the quality and timeliness of the access provided by a BOC to requesting carriers.”²⁸ We expect that, in its prima facie case in the initial application, a BOC relying on performance data will:

²² See, e.g., *SWBT Kansas/Oklahoma Order* at paras. 21-27; *SWBT Texas Order*, 15 FCC Rcd at 18370-73, paras. 34-42; *Bell Atlantic New York Order*, 15 FCC Rcd at 3968-71, paras. 32-42.

²³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 3973-74, para. 52.

²⁴ See 47 U.S.C. § 271(c)(2)(B)(i), (ii).

²⁵ See *SWBT Kansas/Oklahoma Order* at paras. 28-29; *Bell Atlantic New York Order*, 15 FCC Rcd at 3971-72, paras. 44-46.

²⁶ *SWBT Texas Order*, 15 FCC Rcd at 18373, para. 44; *Bell Atlantic New York Order*, 15 FCC Rcd at 3971, para. 44.

²⁷ *Bell Atlantic New York Order*, 15 FCC Rcd at 3971, para. 44; *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan*, Memorandum Opinion and Order, 12 FCC Rcd 20543, 20618-19, para. 141 (1997) (*Ameritech Michigan Order*).

²⁸ *Bell Atlantic New York Order*, 15 FCC Rcd at 3969, para. 53.

- a) provide sufficient performance data to support its contention that the statutory requirements are satisfied;
- b) identify the facial disparities between the applicant's performance for itself and its performance for competitors;
- c) explain why those facial disparities are anomalous, caused by forces beyond the applicant's control (*e.g.*, competing carrier-caused errors), or have no meaningful adverse impact on a competing carrier's ability to obtain and serve customers; and
- d) provide the underlying data, analysis, and methodologies necessary to enable the Commission and commenters meaningfully to evaluate and contest the validity of the applicant's explanations for performance disparities, including, for example, carrier specific carrier-to-carrier performance data.

13. The Massachusetts Department has adopted the performance metrics and standards established by the New York Commission. Under this framework, for functions with retail analogues, Verizon provides a figure indicating the degree of statistical significance for any differences in performance for competitors as compared to performance for its retail operations. For functions with a performance benchmark, Verizon provides data on its performance, which are then compared to the benchmark. The Commission has explained in prior orders that parity and benchmark standards established by state commissions do not represent absolute maximum or minimum levels of performance necessary to satisfy the competitive checklist. Rather, where, as here, these standards are developed through open proceedings with input from both the incumbent and competing carriers, these standards can represent informed and reliable attempts to objectively approximate whether competing carriers are being served by the incumbent in substantially the same time and manner, or in a way that provides them a meaningful opportunity to compete.²⁹ Thus, to the extent there is no statistically significant difference between Verizon's provision of service to competing carriers and its own retail customers, we generally need not look any further. Likewise, if Verizon's provision of service to competing carriers satisfies the performance benchmark, our analysis is usually done. Otherwise, we will examine the evidence further to make a determination whether the statutory nondiscrimination requirements are met.³⁰ Thus, we will examine the explanations that Verizon and others provide about whether these data accurately depict the quality of Verizon's performance. We also may examine how many months a variation in performance has existed and what the recent trend has been. We may find that statistically significant differences exist, but conclude that such differences have little or no competitive significance in the marketplace. In such cases, we may conclude that the differences are not meaningful in terms of statutory compliance. Ultimately, the determination of whether a BOC's performance meets the statutory requirements necessarily is a contextual decision based on the totality of the circumstances and information before us.

²⁹ See *SWBT Kansas/Oklahoma Order* at para. 31; *SWBT Texas Order*, 15 FCC Rcd at 18377, para. 55 & n.102.

³⁰ See *Bell Atlantic New York Order*, 15 FCC Rcd at 3970, para. 59.

14. In this application, we examine performance data as reported in carrier-to-carrier reports reflecting service in the most recent full months before filing (*i.e.*, from September through December 2000). We also examine Verizon's January performance data in a few instances for the limited purpose of confirming the acceptable performance or a trend of improvement shown in earlier months' data. Verizon has asserted that some of these data are affected by a workers' strike that took place in August 2000. We address the relevance of the strike and Verizon's explanations of its impact on the data below in our discussions of specific aspects of Verizon's performance.

IV. PRIMARY ISSUES IN DISPUTE

15. In this Order, we assess all aspects of compliance with section 271, but we focus primarily on the most controversial checklist compliance issues as the Commission did in the recent *SWBT Kansas/Oklahoma Order*.³¹ First, we address checklist item 2, which encompasses access to unbundled network elements, including issues related to OSS and combinations of network elements as well as pricing. We then discuss checklist item 4, access to unbundled local loops. The remaining checklist requirements are then discussed briefly because commenting parties did not comment as extensively, or at all, on them, and our own review of the record leads us to conclude that Verizon has satisfied these requirements. We then address Verizon's showing of compliance with the requirements of Track A in Massachusetts. Finally, we discuss issues concerning compliance with section 272 and the public interest requirement, and our section 271(d)(6) enforcement authority. It is our hope that this approach will serve to focus attention on the section 271 requirements commenting parties address most extensively, while streamlining the discussion of the other less or noncontroversial requirements.

A. Checklist Item 2 – Unbundled Network Elements

1. Pricing of Network Elements

a. Background

16. Checklist item 2 of section 271 states that a BOC must provide “[n]ondiscriminatory access to network elements in accordance with the requirements of sections 251(c)(3) and 252(d)(1)” of the Act.³² Section 251(c)(3) requires LECs to provide “nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory. . . .”³³ Section 252(d)(1) requires that a state commission's determination of the just and reasonable rates for network elements shall be based on the cost of providing the network elements, shall be nondiscriminatory, and may include a reasonable profit.³⁴ Pursuant to this statutory mandate, the

³¹ See *SWBT Kansas/Oklahoma Order* at para. 39.

³² 47 U.S.C. § 271(B)(ii).

³³ *Id.* § 251(c)(3).

³⁴ *Id.* § 252(d)(1).

Commission has determined that prices for unbundled network elements (UNEs) must be based on the total element long run incremental cost (TELRIC) of providing those elements.³⁵

17. Although the United States Court of Appeals for the Eighth Circuit stayed the Commission's pricing rules in 1996,³⁶ the Supreme Court restored the Commission's pricing authority on January 25, 1999, and remanded to the Eighth Circuit for consideration of the merits of the challenged rules.³⁷ On remand from the Supreme Court, the Eighth Circuit concluded that while TELRIC is an acceptable method for determining costs, certain specific rules contained within the Commission's pricing rules were contrary to Congressional intent.³⁸ The Eighth Circuit has stayed the issuance of its mandate pending review by the Supreme Court.³⁹ Accordingly, the Commission's rules remain in effect for purposes of this application.

18. The Massachusetts Department established its prices for UNEs in an extensive proceeding beginning when several carriers requested arbitration of interconnection agreements with Verizon in July 1996.⁴⁰ In Phase 4 of its *Consolidated Arbitrations* proceeding, the Massachusetts Department examined cost studies submitted by Verizon and the competitive LECs that purported to apply the Commission's TELRIC pricing methodology.⁴¹ The Massachusetts Department accepted, for the most part, Verizon's submitted cost model and ordered it to determine the cost of UNEs based on that model.⁴² The interim rates adopted in the *Massachusetts DTE Phase 4 Order* were made permanent by the Massachusetts Department on March 19, 1999.⁴³ From the start of the *Consolidated Arbitrations* proceeding through the filing

³⁵ See *Local Competition First Report and Order*, 11 FCC Rcd at 15844-47, paras. 672-78; 47 C.F.R. §§ 51.501 *et seq.* (1999); see also *Line Sharing Order*, 14 FCC Rcd at 20973-81, paras. 131-57 (concluding that states should set the prices for line sharing as a new network element in the same manner as the states set prices for other UNEs).

³⁶ See *Iowa Utils. Bd. v. FCC*, 109 F.3d 418 (8th Cir. 1996), 120 F.3d 753, 800, 804-06 (8th Cir. 1997), *aff'd in part, rev'd in part sub nom. AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

³⁷ *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. at 397.

³⁸ *Iowa Utils. Bd. v. FCC*, 219 F.3d 744 (8th Cir. 2000), *cert. granted sub nom. Verizon Communications, Inc. v. FCC*, 121 S. Ct. 877 (2001).

³⁹ *Iowa Utils. Bd. v. FCC*, No. 96-3321 *et al.* (8th Cir., Sept. 25, 2000).

⁴⁰ See Verizon Massachusetts I Application App. H, Vol. 27, Tab 162, *Consolidated Petitions of New England Telephone and Telegraph Company d/b/a NYNEX, Teleport Communications Group, Inc., Brooks Fiber Communications, AT&T Communications of New England, Inc., MCI Communications Company, and Sprint Communications Company, L.P., Pursuant to Section 252(b) of the Telecommunications Act of 1996, for Arbitration of Interconnection Agreements Between NYNEX and the Aforementioned Companies* D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94—Phase 4 (Dec. 4, 1996) (*Massachusetts DTE Phase 4 Order*).

⁴¹ See *Massachusetts DTE Phase 4 Order* at 6, 8-9.

⁴² See *Massachusetts DTE Phase 4 Order* at 12-17, 71.

⁴³ See Verizon Massachusetts I Application App. F, Vol. 8, Tab 157, *Investigation by the Department on Its Own Motion into the Propriety of the Resale Tariff of New England Telephone and Telegraph Company d/b/a Bell* (continued....)

of Verizon's section 271 applications, commenters have been challenging Verizon's UNE rates in Massachusetts.⁴⁴ On July 24, 2000, the Massachusetts Department approved lower, promotional residential UNE switching rates in an interconnection agreement between Verizon and one carrier, Z-Tel.⁴⁵ These promotional rates were negotiated at the request of the Massachusetts Department and were made available to similarly situated carriers.⁴⁶ In a tariff filing submitted to and approved by the Massachusetts Department on October 13, 2000, during the pendency of Verizon's Massachusetts I Application, Verizon further lowered its UNE rates for switching, transport and switch ports to rates equivalent to those that it currently has in effect in New York.⁴⁷ In filing these October 13th rates with the Massachusetts Department, Verizon explained that the lower rates were intended to "eliminate pricing issues particularly regarding local switching in its Section 271 application now pending before the FCC."⁴⁸

19. On January 12, 2001, the Massachusetts Department opened its scheduled five-year review of UNE rates.⁴⁹ The Massachusetts Department intends to conclude its investigation

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Atlantic-Massachusetts, Filed with the Department on January 16, 1998, to Become Effective February 14, 1998, D.T.E. 98-15 (Phases II, III) at 16 (Mar. 19, 1999).

⁴⁴ See Verizon Massachusetts I Application App. H, Vol. 29, Tab 175, *Motion of MCI Telecommunications Corp. for Reconsideration and Clarification of Phase 3 and Phase 4 Orders*, D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94 (Dec. 31, 1996); Verizon Massachusetts I Application App. F, Vol. 1, Tab 12, *Motion by AT&T Communications of New England, Inc., to Establish Permanent Recurring Rates for Unbundled Network Elements*, D.T.E. 98-15 (Mar. 27, 1998); Verizon Massachusetts I Application App. F, Vol. 7, Tab 126, *Initial Brief of MCI WorldCom, Inc. on the Methodology for Permanent Pricing of Unbundled Network Elements*, D.T.E. 98-15 (Oct. 14, 1998); Verizon Massachusetts I Application App. B, Vol. 37, Tab 455, Letter from Christopher J. McDonald, Senior Attorney, MCI WorldCom, to Mary L. Cottrell, Secretary, Massachusetts Department of Telecommunications and Energy (May 18, 2000); Verizon Massachusetts I Application App. B, Vol. 38, Tab 457, Comments of the Attorney General on Bell Atlantic's May 26, 2000 Supplemental Filing, D.T.E. 99-271 at 17-18 (July 18, 2000).

⁴⁵ See Verizon Massachusetts I Application App. A, Tab 7, Declaration of W. Robert Mudge Attach. A, Amendment No. 2 to the Interconnection Agreement between Bell Atlantic-Massachusetts and Z-Tel Communications, Inc. (June 29, 2000); see also Massachusetts Department Massachusetts I Comments at 221-22.

⁴⁶ See Massachusetts Department Massachusetts I Comments at 221-22.

⁴⁷ Massachusetts Department Massachusetts I Comments at 222-23; Letter from Gordon R. Evans, VP Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 (Oct. 13, 2000) (Verizon October 13th UNE Rate Filing); Verizon Massachusetts I Reply App., Tab 8, Reply Declaration of Steven E. Collins Attach. B, Letter from John L. Conroy, Director Regulatory-Massachusetts, Verizon, to Mary Cottrell, Secretary, Massachusetts Department of Telecommunications and Energy, correcting a typographical error in October 13th filing for unbundled telephone company reciprocal compensation rates (Oct. 18, 2000).

⁴⁸ Verizon October 13th UNE Rate Filing at 2.

⁴⁹ See Verizon Massachusetts II Application App. B, Vol. 3, Tab 4, Subtab D, *Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Pricing, Based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combination of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale* (continued....)

and have new UNE rates in place by the end of this calendar year.⁵⁰ The Massachusetts Department asserts that the UNE rates currently in effect are permanent, not interim, despite the fact that the Massachusetts Department is now conducting its regular review of UNE rates.⁵¹

b. Discussion

20. Based on the evidence in the record, we find that Verizon's charges for UNEs made available in Massachusetts to other telecommunications carriers are just, reasonable, and nondiscriminatory in compliance with checklist item 2. Verizon states that it provides UNEs at TELRIC-based rates.⁵² The Massachusetts Department concludes that Verizon has satisfied the requirements of this checklist item.⁵³ The Commission has previously held that it will not conduct a *de novo* review of a state's pricing determinations and will reject an application only if "basic TELRIC principles are violated or the state commission makes clear errors in factual findings on matters so substantial that the end result falls outside the range that the reasonable application of TELRIC principles would produce."⁵⁴ In reviewing Verizon's Massachusetts pricing, we find that the Massachusetts Department generally followed basic TELRIC principles, though adherence to such basic principles, if other key inputs or methodologies are not reasonable, does not ensure that the rates adopted are TELRIC-complaint.⁵⁵

21. Verizon's Massachusetts II Application relies on voluntarily-adopted rates that are equivalent to those currently in place in New York.⁵⁶ In the *Bell Atlantic New York Order*, over a

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Services in the Commonwealth of Massachusetts, D.T.E. 01-20 (Jan. 12, 2001) (*Massachusetts DTE UNE Rate Investigation Order*).

⁵⁰ See *Massachusetts DTE UNE Rate Investigation Order* at 5.

⁵¹ See Massachusetts Department Massachusetts I Reply at 50-52; see also Massachusetts Department Massachusetts I Comments at 205, 216.

⁵² See Verizon Massachusetts II Application at 40.

⁵³ See Massachusetts Department Massachusetts II Comments at 19-20.

⁵⁴ *Bell Atlantic New York Order*, 15 FCC Rcd at 4084, para. 244; *SWBT Kansas/Oklahoma Order* at para. 59.

⁵⁵ For a discussion of the rates set by the Massachusetts Department, see *infra* Part IX.

⁵⁶ See Verizon Massachusetts II Application at 37-38; Verizon Massachusetts II Reply at 31-32. New York's UNE rates were not adopted in whole because minor adjustments were made to account for rate structure differences. Based on our own analysis, we find that the rates Verizon adopted on October 13, 2000 are equivalent to those approved in New York for those elements, when one accounts for the rate structure differences (*e.g.* lower port prices and higher per-minute prices in Massachusetts). Comparisons depend on assumption of switch usage, but even with high estimates of switch usage, the Massachusetts rates for ports and switches are only 2 percent more than those in New York. We find that AT&T's assertion that Verizon's voluntarily discounted rates in Massachusetts are not the equivalent of corresponding New York rates is unsubstantiated and without merit, and we agree with the Massachusetts Department that Massachusetts rates are "effectively the same" as the corresponding rates in New York. See AT&T Massachusetts II Comments at 8; see also Letter from Charles E. Griffin, Government Affairs Director, AT&T, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 at 3-4 (filed March 21, 2001) (AT&T March 21 *Ex Parte* Letter); Massachusetts (continued....)

year ago in 1999, the Commission found that these rates complied with the requirements of checklist item 2 for purposes of Verizon's section 271 application.⁵⁷ This decision was affirmed by the United States Court of Appeals for the District of Columbia Circuit.⁵⁸ We note, however, that these rates are at present under active review by the New York Commission.

22. Commenters have raised several objections to Verizon's October 13th UNE switching rates. Specifically, commenters claim that Verizon has not submitted evidence demonstrating that these rates are cost-based.⁵⁹ As the Commission noted in the *SWBT Kansas/Oklahoma Order*, under appropriate circumstances, a BOC's UNE rates will be entitled to a presumption of TELRIC compliance if they are adopted in whole from another state whose rates have been found to comply with TELRIC, and if costs are demonstrated to be at or above the costs in the state whose rates were adopted.⁶⁰ Under this standard, Verizon's October 13th rates will be found to be TELRIC-compliant if Verizon can demonstrate that its switching costs in Massachusetts are the same or higher than in New York. In the *SWBT Kansas/Oklahoma Order*, the Commission also determined that the USF cost model provides a reasonable basis for comparing cost differences between states.⁶¹

23. We find that Verizon's Massachusetts rates at the filing of the application meet the TELRIC-presumption test set forth in the *SWBT Kansas/Oklahoma Order*. An analysis of relative switch costs using our USF model supports this conclusion. In the USF cost model, the Commission estimated forward-looking switch costs by adopting a fixed cost for host and stand-alone switches, and a separate fixed cost for remote switches.⁶² The switch costs in the USF model vary based primarily on the number of lines per switch. The results of regression analysis developed by the Commission through the USF model to estimate switching costs indicate that switching costs per line decrease as the number of lines increases because the fixed cost of switching is spread over a larger number of lines. The results also indicate that switching cost per line decreases as the relative number of remotes in the network increases because the fixed cost for a remote switch is less than that for a host or a stand-alone switch.

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Department Massachusetts I Reply at 52-53; Massachusetts Department Massachusetts I Comments at 222-23; Massachusetts Department Massachusetts II Comments at 20-21.

⁵⁷ *Bell Atlantic New York Order*, 15 FCC Rcd at 4081, para. 238.

⁵⁸ *AT&T Corp. v. FCC*, 220 F.3d 607, 617-18 (D.C. Cir. 2000).

⁵⁹ WorldCom Massachusetts I Comments at 7-9; ASCENT Massachusetts II Comments at 15; WorldCom Massachusetts II Comments at 12.

⁶⁰ *SWBT Kansas/Oklahoma Order* at para. 82 n.244.

⁶¹ *Id.* at para. 84.

⁶² *Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45, 97-160, Tenth Report and Order, 14 FCC Rcd 20156, 20281, para. 296 (1999) (*USF Tenth Report and Order*). The Commission also adopted an additional cost per line for remote, host, and stand-alone switches. The determination of host and remote switches in the USF model was based on the Local Exchange Routing Guide (LERG). *See id.*

24. Here, evidence indicates that the number of lines per switch is no greater in Massachusetts than in New York, and it is reasonable to conclude that switch costs would not be lower in Massachusetts than in New York.⁶³ The data used with the Commission's model to estimate switching costs indicate that in Massachusetts Verizon has 16,585 lines per wire center and that in New York it has 20,865 lines per wire center. These data show that in Massachusetts, Verizon's host and stand-alone switches account for 58 percent of the total number of switches and its remote switches account for the remaining 42 percent. The data also show that in New York, Verizon's host and stand-alone switches account for 54 percent of the total number of switches and its remote switches account for the remaining 46 percent. These data underlie the less than two percent higher estimate obtained from the Commission's model of switching cost per line for Massachusetts than for New York.

25. Our finding that Verizon may rely on New York rates is also supported by a comparison of Verizon's costs to Verizon's actual rates. A weighted average of Verizon's voluntarily-discounted Massachusetts rates (switching, transport, and switch ports) and corresponding rates in New York shows that rates in Massachusetts are roughly 5 percent lower than those in New York.⁶⁴ A comparison based on the Commission's USF model of costs in Verizon's study areas in Massachusetts and New York for these same elements indicates that the costs in Massachusetts are roughly the same as the costs in New York.⁶⁵ Because of the rate structure differences between Massachusetts and New York that recover more of the switching costs through the flat-rated port charge in New York, we believe this aggregate comparison is most appropriate. In comparing each of the non-loop elements separately, application of the USF cost model indicates that costs for unbundled switching are almost the same in Massachusetts and New York, with costs in Massachusetts only 1 percent higher. Verizon's per-minute rates for unbundled switching are slightly higher in Massachusetts than in New York, but this is offset by its unbundled switch port rates, which are lower in Massachusetts than in New York. Signaling and transport costs are lower in Massachusetts than in New York, according to the model, and the Massachusetts rates for these elements are correspondingly lower.

26. In addition to our analysis of the switching element costs based on the USF cost model, Verizon has submitted evidence demonstrating that its switching costs in Massachusetts are the same as or higher than its switching costs in New York.⁶⁶ According to Verizon, cost

⁶³ See Letter from Keith L. Seat, Senior Counsel, Federal Law and Public Policy, MCI Communications Corporation, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 at 26 (Oct. 3, 2000) (chart showing cumulative distribution of lines by wire center size in Massachusetts and New York).

⁶⁴ This analysis assumed 1200 originating and 1200 terminating local minutes of use per line per month with 25 percent of the minutes intraswitch. The two states' rates remain close using a wide range of assumptions.

⁶⁵ See <http://www.fcc.gov/ccb/apd/hcpm>. We note that AT&T conducted a similar analysis with similar results. Specifically, according to AT&T, rates for the non-loop elements are approximately 7 percent lower in Massachusetts than in New York, and costs for the non-loop elements are 6 percent lower in Massachusetts than in New York. See AT&T Massachusetts II Comments Attach. 4.

⁶⁶ See Verizon Feb. 23 UNE Costs *Ex Parte* Letter at 1. AT&T concurs that switching costs in Massachusetts are the same as those in New York. See AT&T March 21 *Ex Parte* at 2.

studies based on the same assumptions were conducted for Massachusetts and New York, and these studies demonstrated higher costs in Massachusetts than in New York for all switching elements, including local switch usage, common transport, tandem usage, and line ports.⁶⁷

27. We therefore conclude that Verizon's switching rates in Massachusetts are at present within the range that a reasonable application of TELRIC principles would produce, although we recognize that rates may need to evolve over time to take into account updated information on cost inputs and new technologies. The Commission has previously found Verizon's switching rates that, at present, are still in effect in New York to be within a range of TELRIC-based rates.⁶⁸

28. We disagree with AT&T's assertion that New York rates should not be used as the benchmark for measuring whether Verizon's UNE rates are TELRIC-based in Massachusetts. AT&T would like the Commission to use rates found to be TELRIC-based in the SWBT states of Texas, Kansas, or Oklahoma for comparison.⁶⁹ We find that it is permissible to rely on the New York rates in this application because they meet the criteria the Commission established in the *SWBT Kansas/Oklahoma Order*. In the *SWBT Kansas/Oklahoma Order*, to determine whether Oklahoma rates were within the range of what a reasonable application of what TELRIC would produce, the Commission compared SWBT's rates in Oklahoma to its rates in Texas. The Commission stated this was permissible because: 1) they have a common BOC and geographic similarities; 2) they have similar, although not identical, rate structures for comparison purposes; and 3) the Commission had already found the rates in Texas to be reasonable.⁷⁰ Applying this standard to Verizon's Massachusetts rates, we find that New York is a permissible state for UNE rate comparison purposes. The states are adjoining, they have similar rate structures, the Commission has found the New York rates are within a zone that is consistent with TELRIC based on current information in the record, and it is the same BOC in both states.

29. We note, however, that the New York Commission is actively investigating UNE rates and may modify those rates to reflect changed market conditions, technologies, and information. If the New York Commission adopts modified UNE rates, future section 271 applicants could no longer demonstrate TELRIC compliance by showing that their rates in the applicant states are equivalent to or based on the current New York rates, which will have been superseded.

30. Moreover, because Verizon would have us rely on switching rates from the New York proceeding, a decision by the New York Commission to modify these UNE rates may

⁶⁷ See Verizon Feb. 23 UNE Costs *Ex Parte* Letter at 1, 3.

⁶⁸ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4084-85, para. 245.

⁶⁹ See AT&T Massachusetts II Comments at 20-21. AT&T asserts that Verizon resists comparisons to switching rates in other states because switching rates in Massachusetts and New York are substantially higher than those in effect in most other states. See *id.* at n.25.

⁷⁰ *SWBT Kansas/Oklahoma Order* at para. 82.

undermine Verizon's reliance on those rates in Massachusetts and its compliance with the requirements of section 271, depending on the New York Commission's conclusions.⁷¹ We note that the Massachusetts Department has undertaken a review of UNE rates in Massachusetts and is endeavoring to reset UNE rates, consistent with the Act and our rules. We observe that in any context in which prices are not set in accordance with our rules and the Act, we retain the ability going forward to take appropriate enforcement action, including action pursuant to section 271(d)(6).⁷²

31. We disagree with those commenters who take issue with the current New York rates, arguing that they are not TELRIC-based.⁷³ As evidence, the commenters point to the ongoing review of the UNE rates being conducted by the New York Commission.⁷⁴ It was reasonable for Verizon to rely on New York's current switching rates because these rates have been found to be TELRIC-compliant by the New York Commission in an extensive rate-making proceeding,⁷⁵ and by this Commission in the *Bell Atlantic New York Order*,⁷⁶ as affirmed by the D.C. Circuit,⁷⁷ and are at present still in effect. It would be unreasonable to preclude incumbent LECs from relying on appropriate rates that have been found to be TELRIC-compliant merely because these rates are under some form of challenge or review where there has not been a determination that those rates are not TELRIC-compliant.⁷⁸ As the D.C. Court of Appeals stated:

[W]e suspect that rates may often need adjustment to reflect newly discovered information, like that about Bell Atlantic's future discounts. If new information automatically required rejection of section 271 applications, we cannot imagine how such applications could ever be approved in this context of rapid regulatory and technological change.⁷⁹

32. We also reject AT&T's contention that New York and Massachusetts switching rates are significantly higher than the switching rates our cost model generates and, therefore, are

⁷¹ See *infra* Part IX.

⁷² See 47 U.S.C. § 271(d)(6).

⁷³ See ASCENT Massachusetts II Comments at 13-14; AT&T Massachusetts II Comments at 9-11; Sprint Massachusetts II Comments at 9-10.

⁷⁴ See AT&T Massachusetts II Comments at 18; WorldCom Massachusetts II Comments at 13, 16-18.

⁷⁵ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4081-83, 4084, paras. 238-40, 242.

⁷⁶ *Id.* at 4083, para. 242.

⁷⁷ *AT&T Corp. v. FCC*, 20 F.3d at 617-18.

⁷⁸ As discussed above, however, the ongoing New York UNE rate proceeding could result in Verizon falling out of section 271 compliance in Massachusetts.

⁷⁹ *AT&T Corp. v. FCC*, 20 F.3d at 617-18.

not TELRIC-compliant.⁸⁰ The Commission has never used the USF cost model to determine rates for a particular element, nor was it designed to perform such a task. The model was designed to determine relative cost differences among different states, not actual costs. That is the purpose for which the Commission has used the model in the universal service proceeding and that is the purpose for which the Commission used it the *SWBT Kansas/Oklahoma Order* and in this Order.⁸¹

33. Additionally, AT&T's and WorldCom's assertions that New York rates should not be relied on because Verizon applied an incorrect switch discount in New York does not change our conclusion. The commenters argue that Verizon applied a smaller switch discount offered by vendors for expanding existing switches rather than the larger discounts it received for bulk purchases of new switches, based on Verizon's erroneous assertion that the larger discounts were no longer available.⁸² Commenters raised this identical issue, however, during the course of the New York section 271 proceeding, and the Commission addressed it in the *Bell Atlantic New York Order*. The Commission found that the New York Commission had substantially reduced Verizon's originally-proposed switch rates and had "appropriately exercised its flexibility to set prices within a range of TELRIC-based rates."⁸³ Although the New York Commission had initiated a second UNE rate case in which it is reexamining the switch discount issue, this Commission held that the switching rates were "no less TELRIC-compliant on that account,"⁸⁴ and noted the New York Commission's position that correcting the level of switch discounts involved complex adjustments.⁸⁵ The Massachusetts Department has opened a new investigation into the UNE rates where this issue will be addressed. In the meantime, the switching rates are equivalent to those the Commission found to be TELRIC-compliant in New York. AT&T's and WorldCom's attack on the switching discount used in establishing New York rates was considered and rejected in the New York section 271 proceeding. As noted above, however, the

⁸⁰ See AT&T March 21 *Ex Parte* at 3-4.

⁸¹ *SWBT Kansas/Oklahoma Order* at para. 84 (citing *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Ninth Report and Order and Eighteenth Order on Reconsideration, 14 FCC Rcd 20432, 20455-56, paras. 41-42 (1999)).

⁸² See WorldCom Massachusetts I Comments at 13; AT&T Massachusetts I Reply at 23; WorldCom Massachusetts I Reply at 8-9; AT&T Massachusetts I Reply at 28-29; WorldCom Massachusetts I Reply at 20; ASCENT Massachusetts II Comments at 13-14; AT&T Massachusetts II Comments at 7, 9 n.13; Sprint Massachusetts II Comments at 9-10; WorldCom Massachusetts II Comments at 17; AT&T Massachusetts II Reply at 7; WorldCom Massachusetts II Reply at 5.

⁸³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4085, paras. 245-46.

⁸⁴ *Id.* at 4086, para. 247.

⁸⁵ AT&T incorrectly asserts that the Commission never concluded in the *Bell Atlantic New York Order* that Verizon's switching rates were "TELRIC-compliant." AT&T March 21 *Ex Parte* at 2 n.1. In the *Bell Atlantic New York Order*, the Commission concluded that Verizon's "prices for switches and loops offered as unbundled network elements are priced pursuant to a forward-looking, long-run incremental cost methodology," and that Verizon offered "a full suite of TELRIC rates" for its unbundled network elements. *Bell Atlantic New York Order*, 15 FCC Rcd at 4081, para. 238, 4083, para. 242.

outcome of the ongoing New York UNE rate proceeding could affect Verizon's future section 271 compliance in Massachusetts.

34. The fact that the New York Commission adopted a true-up mechanism for the switching rates pending the outcome of its UNE cost proceeding, while Massachusetts rates are not subject to true-up, does not at present mean that Verizon fails this checklist item.⁸⁶ Although we agree that implementation of such a true-up mechanism pending the outcome of the Massachusetts Department's current UNE cost proceeding could help to ensure that competitive LECs pay cost-based rates, we do not fail Verizon on this checklist item merely because such a mechanism is lacking in Massachusetts. The Commission did not rely on the existence of the true-up mechanism in finding the New York switching rates to be TELRIC-compliant,⁸⁷ although we recognize that in certain circumstances such measures could be appropriate.

35. Although questions have been raised regarding whether the Massachusetts Department will adopt TELRIC-based pricing on a going-forward basis, we note that Massachusetts' permanent UNE rates were adopted by the Massachusetts Department shortly after the passage of the 1996 Act and our rules implementing it.⁸⁸ Since that time, there has been significant guidance on what constitutes TELRIC-based rates from this Commission, other state commissions, and the courts. States may benefit from the experiences of other states that have undertaken extensive pricing analyses. Additionally, circumstances have changed since Massachusetts prices were originally set in late 1996. New developments, technologies, and information, including information as to the kind of switch discounts that would be available if a carrier were building an entire network, have become available since that time. As always, we presume that the Massachusetts Department, like other state commissions, will examine these issues during the course of its ongoing rate case and set rates within the range of what a reasonable application of what TELRIC would produce.

36. We find the concerns of the commenters regarding the pending UNE cost proceeding before the Massachusetts Department to be unwarranted.⁸⁹ As discussed above, the

⁸⁶ See AT&T Massachusetts I Reply at 28-30; Massachusetts Attorney General's Massachusetts I Reply at 9; AT&T Massachusetts II Comments at 4; AT&T March 21 *Ex Parte* at 2; Massachusetts Attorney General's Massachusetts II Comments at 3, 5-6.

⁸⁷ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4085-86, para. 247. The Commission did cite favorably the true-up mechanism adopted by the New York Commission in setting rates for the conditioning of xDSL-capable loops, but these rates were interim at the time of the section 271 filing. See *id.* at 4091, para. 259. Verizon's October 13th switching rates, like its New York switching rates, are not interim.

⁸⁸ See Massachusetts Department Massachusetts I Comments at 204-06. As noted above, commenters have repeatedly challenged Verizon's rates in Massachusetts, but the Massachusetts Department has not changed UNE rates since it set them in 1996. See, e.g., WorldCom Massachusetts I Comments at 34-37; AT&T Massachusetts II Comments at 10. Additionally, as noted above, Verizon voluntarily adopted New York switching rates in Massachusetts.

⁸⁹ See ASCENT Massachusetts II Comments at 14; AT&T Massachusetts II Comments at 10; Massachusetts Attorney General's Massachusetts II Comments at 6 n.12.

fact that a state may conduct a rate investigation and change the rates in the future does not cause an applicant to fail the checklist item at this time. Indeed, rates may well evolve over time to reflect new information on cost inputs and changes in technology or market conditions. The Massachusetts Department has expended an extraordinary amount of effort in its *Consolidated Arbitrations* and other rate-making proceedings. We applaud the Massachusetts Department for the tremendous amount of work it has done, and we expect that it will adopt appropriate cost-based UNE rates in its current proceeding. The Massachusetts Department has committed to conclude its proceeding and implement new UNE rates before the end of this calendar year.⁹⁰

37. Additionally, we find the Massachusetts loop rates to be within the range that the reasonable application of TELRIC principles would produce. Commenters contend that Verizon's UNE-loop rates are not TELRIC-based.⁹¹ The Commission has made clear that it will not overturn a state's pricing decision in the context of a section 271 proceeding where isolated factual findings might differ from what we would find if we were arbitrating the case. Instead, we will reject an application "only if basic TELRIC principles are violated or the state commission makes clear errors in factual findings on matters so substantial that the end result falls outside the range that the reasonable application of TELRIC principles would produce."⁹²

38. Commenters have raised legitimate concerns regarding some of the inputs used by Massachusetts in calculating its loop rates. In particular, we note that the Massachusetts Department utilized a cost of capital of 12.16 percent.⁹³ This is higher than the cost of capital that the Massachusetts Department has used in setting Verizon's local rates⁹⁴ and substantially higher than the cost of capital employed by any of the other states in Verizon's region. AT&T questions whether there is any reason to believe that offering UNEs on a wholesale basis, where Verizon faces no competition, is riskier than offering retail service, where it now has competition.⁹⁵ We

⁹⁰ See *Massachusetts UNE Rate Investigation Order* at 5; Massachusetts Department Massachusetts II Comments at 22.

⁹¹ See WorldCom Massachusetts I Comments at 30-31; AT&T Massachusetts I Reply at 32-33, Attach. B at 2; WorldCom Massachusetts I Reply at 10-13; AT&T Massachusetts II Comments at 21-24; Sprint Massachusetts II Comments at 9; WorldCom Massachusetts II Comments at 18-19.

⁹² *Bell Atlantic New York Order*, 15 FCC Rcd at 4084, para. 244.

⁹³ See AT&T Massachusetts II Comments at 21-22; Sprint Massachusetts II Comments at 10-11; WorldCom Massachusetts II Comments at 19-22.

⁹⁴ The Massachusetts Department considered whether Verizon's rates set under the last year of rate of return regulation were a reasonable starting point for rates established under price cap regulation and determined that a 9.63 percent rate of return was reasonable for Verizon. The 9.63 percent rate of return reflects an 11.5 percent cost of equity, a 7.16 percent cost of debt, and a capital structure with 41 percent and 59 percent equity. See *Petition of New England Telephone and Telegraph Company d/b/a/ NYNEX for an Alternative Regulatory Plan for the Company's Massachusetts Intrastate Telecommunications Services*, 1995 WL 386802 (Mass. D.P.U. 1995) at 455-516, 528.

⁹⁵ See AT&T Massachusetts I Reply at 17-18; AT&T Massachusetts II Comments at 6-8. The cost of capital used by the Massachusetts Department to set UNE rates is also significantly higher than the 11.25 percent cost of capital used by this Commission, and is more heavily weighted towards equity (76 percent) than is the (continued....)

question whether this relatively high cost of capital is sufficiently justified by state-specific factors. We note, however, that the Massachusetts Department is reviewing this input as part of its current rate case, and, as discussed below, we find that Verizon's loop rates fall within a reasonable TELRIC range.

39. In addition, commenters have pointed out that Massachusetts used substantially lower fill factors⁹⁶ in calculating its UNE-loop rates than this Commission has used in its USF cost model.⁹⁷ For copper distribution cable, which affects loop rates, Verizon used a fill factor of 40 percent for metro, urban, and suburban zones.⁹⁸ In the *SWBT Kansas/Oklahoma Order*, the Commission found that a fill factor of 30 percent for distribution cable was too low because it assumed that too large a percentage of capacity would be idle for an indefinite time, contrary to TELRIC's presumption of an efficient network.⁹⁹ The Commission noted that it adopted fill factors ranging from 50 to 75 percent for the USF cost model, that the Kansas Commission adopted a 53 percent distribution cable fill factor, and that the New York Commission adopted a 50 percent distribution cable fill factor.¹⁰⁰ We question whether the low fill factor used in Massachusetts is appropriate without a state-specific justification. We note, however, that the Massachusetts Department is reviewing this input as part of its current rate case, and, as discussed below, we find that Verizon's rates fall within a reasonable TELRIC range.¹⁰¹

40. Despite our concerns, we conclude that any errors made by the Massachusetts Department in establishing loop rates were not so great as to render the resulting rates outside the range that a reasonable application of TELRIC principles would produce. In reaching this conclusion, we have compared the differences between Verizon's Massachusetts and New York

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Commission's capital structure (55.8 percent equity, 44.2 percent debt). *See* WorldCom Massachusetts I Comments at 22; AT&T Massachusetts II Comments at 21-22; Sprint Massachusetts II Comments at 10-11; WorldCom Massachusetts II Comments at 19-22.

⁹⁶ A fill factor is the estimate of the proportion of a facility that will be used.

⁹⁷ *See* AT&T Massachusetts II Comments at 21-22; Sprint Massachusetts II Comments at 10-11; WorldCom Massachusetts II Comments at 19-22.

⁹⁸ *See* Verizon Massachusetts I Application App. H, Vol. 31, Tab 198, *NYNEX Phase 2 and Phase 4 Compliance Filing*, Workpapers Part A at 11 (Feb. 14, 1997); *see also* WorldCom Massachusetts II Frentrup Decl. at para. 21.

⁹⁹ *SWBT Kansas/Oklahoma Order* at para. 80.

¹⁰⁰ *Id.*

¹⁰¹ The commenters point to various other inputs to the cost model used to calculate the Massachusetts loop rates that they assert are incorrect. These inputs include: 1) unrealistically long drop lengths in urban and suburban areas; 2) excessive spare conduit capacity; 3) unreasonably high pole cost assumptions; 4) unreasonably high cost per NID; and 6) unreasonably high cost of cables. *See* AT&T Massachusetts II Comments at 21-22; Sprint Massachusetts II Comments at 10-11; WorldCom Massachusetts II Comments at 19-22. We do not make any specific finding with regard to these inputs, but expect that the Massachusetts Department will address these inputs in its pending UNE rate proceeding.

loop rates with the relative cost differences between the two states using the USF cost model.¹⁰² According to the USF cost model, average loop costs in Verizon's Massachusetts study area are 8 percent higher than average loop costs in Verizon's New York study area.¹⁰³ Yet loop rates in Massachusetts are only 6 percent higher than in New York.¹⁰⁴ The Commission has already determined that the New York loop rates are TELRIC-compliant.¹⁰⁵ Based on this analysis, we conclude that the loop rates in Massachusetts are also within the reasonable range that application of TELRIC principles would produce.

41. Finally, we do not accept WorldCom's assertion that competitors lack a sufficient profit margin between Verizon's retail and wholesale rates to allow local residential competition over the UNE-P, which indicates that the UNE rates are not TELRIC-based.¹⁰⁶ WorldCom asserts that Verizon's UNE rates do not provide a "viable path to entry" because the rates do not provide a "gross margin" of profit that is "economically viable."¹⁰⁷ In the *SWBT Kansas/Oklahoma Order*, the Commission held that this profitability argument is not part of the section 271 evaluation of whether an applicant's rates are TELRIC-based.¹⁰⁸ The Act requires that we review whether the rates are cost-based, not whether a competitor can make a profit by entering the market. Conducting a profitability analysis would require us to consider the level of a state's retail rates, because such an analysis requires a comparison between the UNE rates and the state's retail rates. Retail rate levels, however, are within the state's jurisdictional authority, not the Commission's.¹⁰⁹ Conducting such an analysis would further require a determination of what a "sufficient profit margin" is. We are hesitant to engage in such a determination.¹¹⁰ Moreover,

¹⁰² As explained above, the New York rates are an appropriate point of comparison because New York and Massachusetts are adjacent states, have similar rate structures, and the New York rates have been found to be TELRIC-compliant.

¹⁰³ See <http://www.fcc.gov/ccb/apd/hcpm>.

¹⁰⁴ AT&T conducted a similar analysis with similar results. Specifically, according to AT&T, loop costs are approximately 10 percent higher in Massachusetts than in New York, while the Massachusetts loop rates exceed the New York loop rates by only 5 percent. See AT&T Massachusetts II Comments Attach. 4.

¹⁰⁵ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4087, para. 249.

¹⁰⁶ See WorldCom Massachusetts II Comments at 2, 6-7, 14, 23; see also AT&T Massachusetts I Comments at 7 n.11; AT&T Massachusetts I Reply at 33-35, 41; AT&T Massachusetts II Comments at 12-14.

¹⁰⁷ WorldCom Massachusetts II Comments App. B, Joint Declaration of Paul Bobeczko and Vijetha Huffman at paras. 9-10 (WorldCom Massachusetts II Bobeczko/Huffman Decl.).

¹⁰⁸ *SWBT Kansas/Oklahoma Order* at paras. 65, 92.

¹⁰⁹ See *SWBT Kansas/Oklahoma Order* at paras. 65, 92; see also *Local Competition First Report and Order*, 11 FCC Rcd at 15922, para. 848 (declining to implement an imputation rule that would prevent price squeezes because doing so would impose substantial burdens on states to rebalance their retail rates).

¹¹⁰ A profitability analysis would also require projections of penetration rates for various services and minutes of use. We are hesitant to engage in those endeavors as well.

competition currently exists in Massachusetts through the use of the UNE-P.¹¹¹ The number of UNE-P lines in use in Massachusetts has significantly increased since Verizon's adoption of the October 13th rates.¹¹²

42. We do not accept AT&T's contention that its inability to make a profit by entering the Massachusetts market proves that it is not permitted an "efficient entry," which is contrary to the Commission's prior determination.¹¹³ AT&T's misinterpretation of the Commission's prior holding appears to be based on its equating "efficient entry" with the guarantee of a profit that would induce competitors to enter the market.¹¹⁴ The Commission, in a prior section 271 case, rejected Ameritech's section 271 application because it failed to demonstrate compliance with non-pricing checklist items.¹¹⁵ The Commission did not analyze whether Ameritech complied with the checklist's pricing requirements. It did, however, set forth "general concerns about pricing" with the goal of providing "guidance as to what showing is required in future applications." The Commission concluded that a BOC is not in compliance with section 271's pricing requirements unless it demonstrates that its costs are "based on forward-looking economic costs."¹¹⁶ The Commission determined that new entrants "should make their decisions whether to purchase unbundled elements . . . based on the relative economic costs of these options," and that such competitors would not be able to make such decisions "efficiently" unless the BOC was offering UNEs based on forward-looking economic costs. The Commission equated "efficient entry" with the availability of UNEs at forward-looking economic costs, which "replicates . . . the conditions of a competitive market."¹¹⁷ "Efficient entry" simply means that competitors seeking entry will face the same sorts of costs they would face in a fully competitive market, that is, TELRIC-based UNE rates. The Commission's use of TELRIC was designed to prevent "inefficient entry" conditions, a situation in which competitors would have to bear unreasonably higher costs than incumbents. Contrary to AT&T's assertion, the concept of "efficient entry" does not guarantee that any competitors will necessarily enter the market. Even if competitors can gain "efficient entry" to a market through the availability of TELRIC-based UNE rates, they may still decide not to enter based on their independent determinations that they cannot turn a sufficient profit in the

¹¹¹ See Z-Tel Massachusetts I Comments at 3-4.

¹¹² See Verizon Massachusetts II Application Attach. B (chart showing the number of competitive LEC platforms at 12,000 in September 2000, and at 23,000 in November 2000). As of December 2000, approximately 35 percent of the total UNE-Ps in Massachusetts were used for residential service. See Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 at 6 (filed Feb. 15, 2001).

¹¹³ AT&T Massachusetts I Reply at 40-41.

¹¹⁴ *Id.*; see also AT&T Massachusetts II Comments Tab 2, Letter from Richard Rubin, Senior Attorney, AT&T to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 at 2 (Nov. 30, 2000).

¹¹⁵ *Ameritech Michigan Order*, 12 FCC Rcd at 20694, para. 281.

¹¹⁶ *Id.* at 20697-98, para. 289.

¹¹⁷ *Id.*

market. As long as UNE rates are cost-based under TELRIC, however, a BOC has satisfied its obligations under sections 251 and 252. We thus find that AT&T has misinterpreted the Commission's determinations in the *Ameritech Michigan Order* and that its assertion does not cause Verizon to fail this checklist item.

2. Access to Operations Support Systems

a. Background

43. The Commission has defined OSS as the various systems, databases, and personnel used by incumbent LECs to provide service to their customers,¹¹⁸ and consistently has found that nondiscriminatory access to OSS is a prerequisite to the development of meaningful local competition.¹¹⁹ Our discussion of Verizon's Operations Support Systems (OSS) begins by outlining our general approach to analyzing the adequacy of an applicant's OSS. Next, we describe the analytical roadmap we use in reviewing the results of independent third-party OSS testing in the applicant's state. Also, because Verizon contends that its line sharing OSS in Massachusetts is the same as its line sharing OSS in New York, we also describe the roadmap we use in reviewing the BOC's reliance on its performance and OSS in another state where substantially greater volumes of commercial data exist to demonstrate the adequacy of its OSS in the applicant state. We then individually analyze Verizon's performance in providing access to the five critical OSS functions: pre-ordering (which includes access to loop qualification information), ordering, provisioning, maintenance and repair, and billing. Finally, we address Verizon's change management process and the technical assistance that Verizon offers to competing carriers seeking to use its OSS. Because the Commission has described its two-step analysis of OSS in previous orders, we do not repeat that analytical approach here.¹²⁰ We instead proceed to evaluate the adequacy of Verizon's Massachusetts OSS consistent with the analysis the Commission has applied previously.

b. Third-Party Testing

44. *KPMG's Independent Third-Party Testing.* The Massachusetts Department retained KPMG to conduct an independent, third-party test of the readiness of Verizon's OSS, interfaces, documentation and processes.¹²¹ KPMG's test was broad in scope.¹²² All stages of the

¹¹⁸ See *Bell Atlantic New York Order*, 15 FCC Rcd at 3989-90, para. 83; *Application of BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in South Carolina*, CC Docket No. 97-208, Memorandum Opinion and Order, 13 FCC Rcd 539, 585 (*BellSouth South Carolina Order*); *SWBT Texas Order*, 15 FCC Rcd at 18396-97, para. 92.

¹¹⁹ See *Bell Atlantic New York Order*, 15 FCC Rcd at 3990, para. 83; *Application by BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as Amended, to Provide In-Region, InterLATA Services in Louisiana*, CC Docket No. 98-121, Memorandum Opinion and Order, 13 FCC Rcd 20599, 20653 (*Second BellSouth Louisiana Order*); *BellSouth South Carolina Order*, 13 FCC Rcd at 547-48, 585.

¹²⁰ See, e.g., *Bell Atlantic New York Order*, 15 FCC Rcd at 3991-92, paras. 85-86; *SWBT Kansas/Oklahoma Order* at paras. 104-05.

¹²¹ Massachusetts Department Massachusetts I Comments at 44; Verizon Massachusetts I Application at 9.

relationship between Verizon and competing carriers were considered, from establishing the initial relationship, to performing daily operations, to maintaining the relationship. Resale, UNE-loops, UNE-P, and combinations were all included in the test. In addition, both the application-to-application electronic data interchange (EDI) and the terminal-type web-based graphical user interface (GUI) were tested.¹²³ KPMG performed pre-ordering, ordering, provisioning, maintenance and repair, billing, and relationship management and infrastructure tests to evaluate functional capabilities and determine whether competing carriers receive a level of service comparable to Verizon retail service.¹²⁴ To fully test these systems, orders were submitted with known error conditions, canceled, and supplemented.¹²⁵ To perform these transaction-driven tests, KPMG combined efforts with Hewlett Packard.¹²⁶ Documentation was evaluated for usefulness, correctness, and completeness.¹²⁷ KPMG also performed stress volume tests of Verizon systems and identified specific bottlenecks for wholesale customers.¹²⁸

45. In performing these tests, KPMG adopted a military-style test standard.¹²⁹ Thus, when situations arose where testing revealed that a Verizon process, document, or system did not meet expectations, Verizon would formally respond by providing a clarification or describing its intended fix for the problem, and KPMG would retest the process, document, or system as required.¹³⁰ Furthermore, to the greatest extent possible, the KPMG test was both independent
(Continued from previous page) _____

¹²² KPMG indicates that its Massachusetts evaluation was designed as a validation of the shared components of the Massachusetts and New York OSS, as well as a full evaluation of the OSS elements unique to Massachusetts. *See* KPMG Final Report at 10. Despite this characterization, KPMG's test was not an evaluation of the comparability of Verizon's Massachusetts and New York OSS, and was therefore unlike the Ernst and Young audit attestation relied upon by the Commission in approving SWBT's application for section 271 authorization in Kansas and Oklahoma. *See SWBT Kansas/Oklahoma Order* at paras. 106-18. Rather, KPMG's test in Massachusetts was in essence a full independent third-party test of Verizon's Massachusetts OSS, including functional and volume testing specifically of the Massachusetts OSS. Aside from PricewaterhouseCoopers' line sharing study discussed below, Verizon has not submitted the type of evidence that we require in order to consider the performance of its OSS in another state in evaluating its Massachusetts OSS. *See id.* For this reason, except as described below (*infra* at paras. 47-49), we do not consider the performance of Verizon's OSS in other states in reaching our conclusions, nor do we address commenters' criticisms of Verizon's OSS in other states.

¹²³ *See* KPMG Final Report at 6.

¹²⁴ In addition, KPMG evaluated the integrity of Verizon's internal handling of raw source data and validated Verizon's calculation of results for a series of metrics measuring Verizon's performance of pre-ordering, ordering, provisioning, maintenance and repair, billing, network performance and operator services functions. *See id.* at 631.

¹²⁵ *See, e.g., id.* at 15.

¹²⁶ *See id.* at 7.

¹²⁷ *See, e.g., id.* at 129-50, 315-36, and 403-10.

¹²⁸ *See, e.g., id.* at 44-45 (testing the EDI interface at 150 percent of Verizon's normal hourly order volume).

¹²⁹ *See id.* at 8-9.

¹³⁰ *See id.*

and blind.¹³¹ Although it was virtually impossible for the KPMG transactions to be truly blind, KPMG instituted certain procedures to ensure that both KPMG and Hewlett Packard would not receive preferential treatment.¹³² For example, KPMG required that all documents provided to them were generally available to all competing carriers.¹³³

46. The persuasiveness of a third-party review depends upon the conditions and scope of the review.¹³⁴ The scope and depth of KPMG's review, and the conditions surrounding it, including KPMG's independence, military-style test philosophy, efforts to place itself in the position of an actual market entrant, and efforts to maintain blindness when possible, lead us to treat the conclusions in the KPMG Final Report as persuasive evidence of Verizon's OSS readiness.

47. *PricewaterhouseCoopers Review.* After filing its initial application, but before refiling, Verizon engaged PricewaterhouseCoopers ("PwC") to review certain aspects of its performance metrics data and OSS to supplement the KPMG review. Among other things, PwC: (1) replicated certain DSL performance metrics for Massachusetts and certain line sharing metrics for Massachusetts and New York to assess whether Verizon calculates measures according to the prescribed business rules;¹³⁵ and (2) reviewed the processes, systems, and procedures used for line sharing by Verizon in Massachusetts to assess whether they are comparable to those used in New York.¹³⁶

48. We conclude that Verizon, through the PwC review and other aspects of its application, provides sufficient evidence that the line sharing OSS in New York are relevant and should be considered in our evaluation of Verizon's Massachusetts OSS. This showing thus enables us to rely, for limited purposes, on New York performance data as an indication of Verizon's line sharing OSS readiness in Massachusetts in addition to the limited Massachusetts specific performance evidence in Verizon's Massachusetts carrier-to-carrier reports. We find that this showing is adequate, in these circumstances, because we are merely considering it as evidence to supplement the limited commercial line sharing performance available in Massachusetts. We

¹³¹ See *id.* at 9.

¹³² For example, blindness was impossible because transactions arrive on dedicated circuits, the owners of which are known by Verizon. *Id.*

¹³³ *Id.*

¹³⁴ *Ameritech Michigan Order*, 12 FCC Rcd at 20659.

¹³⁵ See *infra* Part IV.B.2.a.

¹³⁶ See Verizon Massachusetts II Application App. A, Vol. 2, Joint Supp. Declaration of Russell J. Sapienza and Gerard J. Mulcahy, Tab 2 at 3-4, para. 9 (Verizon Massachusetts II Sapienza/Mulcahy Decl.). PwC also assessed whether Verizon's separate data affiliate, Verizon Advanced Data, Inc. ("VADI") used the same interfaces as non-affiliates and whether Verizon treats VADI transactions the same as non-affiliate transactions and reviewed the accuracy and consistency of several Verizon studies of the Massachusetts DSL performance data. *Id.* We note in the relevant discussions below the extent to which we rely on these findings.

also note that our finding rests in part on the fact that no party asserts that the New York and Massachusetts line sharing OSS are different or that we should not consider Verizon's New York line sharing performance in this application.¹³⁷ Indeed, at least one commenter concedes the comparability issue.¹³⁸

49. The record indicates that Verizon's line sharing OSS in New York and Massachusetts use the same systems and offer the same functionality.¹³⁹ PwC's review included a step-by-step "walkthrough" of 957 OSS transactions. PwC tracked both New York and Massachusetts transactions forward from the competing carrier interfaces to Verizon's service order processor to determine if the process is the same in both states. PwC also sampled pending service orders in the Service Order Processor and traced their history back to Verizon's front-end systems. PwC supplemented the walkthroughs by examining programming code, reviewing documentation related to systems architecture and process flow, and interviewing Verizon employees.¹⁴⁰ PwC concluded, based upon its review, that there are "no significant differences in the systems and processes used to provide ordering, provisioning, or maintenance and repair of line sharing in New York and Massachusetts." In addition to PwC's review, the record indicates that Verizon's Massachusetts OSS for pre-ordering functions does not distinguish queries related to line sharing from those for stand alone xDSL-capable loops.¹⁴¹ As we conclude below, Verizon has shown that its pre-ordering OSS for xDSL-capable loops is adequate.¹⁴² Accordingly, we shall consider Verizon's commercial line sharing performance in New York as a supplement to Verizon's limited commercial line sharing performance in Massachusetts.

c. Pre-Ordering

50. Based on the evidence in the record, we conclude that Verizon demonstrates that it provides nondiscriminatory access to its OSS pre-ordering functions. Specifically, we find that Verizon demonstrates that: (i) Verizon's pre-ordering systems allow competing carriers to successfully build and use application-to-application interfaces to perform pre-ordering functions,

¹³⁷ We cannot say, however, that we would find similar evidence persuasive proof that OSS from one state is relevant in our consideration of another state's OSS if such evidence were challenged or were not merely intended to supplement actual, though limited, commercial evidence in the primary state (as we have here).

¹³⁸ See Covad Massachusetts II Comments at 20.

¹³⁹ Verizon Massachusetts II Sapienza/Mulcahy Decl. at 6-26, paras. 14-48.

¹⁴⁰ PwC did note two exceptions to its overall conclusion. First, a Verizon operations center processes line sharing orders for VADI's New York operations but not other competitive LECs or VADI's Massachusetts operations. PwC did find, however, that the operations center uses the same methods and procedures as the operations center that processes other line sharing orders. Second, one "code module" in the New York Service Order Processor did not exist in the Massachusetts Service Order Processor. Verizon explained that the code module was inactive and had been renamed for archiving, and immediately deleted it.

¹⁴¹ See Verizon Massachusetts II Application App. A, Vol. 1, Declaration of Paul A. Lacouture and Virginia P. Rueterholz at 12, para. 27 (Verizon Massachusetts II Lacouture/Rueterholz Decl.).

¹⁴² See *infra* Parts IV.A.2.c(ii) & IV.B.2.c.

allow competitors to integrate pre-ordering and ordering interfaces, provide reasonably prompt response times, and are consistently available in a manner that affords competitors a meaningful opportunity to compete; and (ii) Verizon offers nondiscriminatory access to OSS pre-ordering functions associated with determining whether a loop is capable of supporting xDSL advanced technologies.

51. The pre-ordering phase of OSS generally includes those activities that a carrier undertakes to gather and verify the information necessary to place an order.¹⁴³ Most of the pre-ordering activities undertaken by a competing carrier to order resale services and UNEs from the incumbent are analogous to the activities a BOC must accomplish to furnish service to its own customers. For example, in this proceeding and in accordance with the *UNE Remand Order*, we require Verizon to provide competing carriers with access at the pre-ordering stage to the same detailed information Verizon makes available to itself concerning loop make-up information so that competitors may make fully informed judgments about whether to provision xDSL service to end users.¹⁴⁴ In prior orders, the Commission has emphasized that providing pre-ordering functionality through an application-to-application interface is essential in enabling carriers to conduct real-time processing and to integrate pre-ordering and ordering functions in the same manner as the BOC.¹⁴⁵

(i) Pre-Ordering Functionality, Integration, Response Times and Availability

52. Verizon's pre-ordering systems allow competing carriers to successfully build and use application-to-application interfaces to perform pre-ordering functions, allow competitors to integrate pre-ordering and ordering interfaces, provide reasonably prompt response times, and are consistently available in a manner that affords competitors a meaningful opportunity to compete. Verizon offers requesting carriers in Massachusetts access to an EDI application-to-application

¹⁴³ See *SWBT Texas Order*, 15 FCC Rcd at 18426, para. 148; *Bell Atlantic New York Order*, 15 FCC Rcd at 4014, para. 129. In prior orders, the Commission has identified the following five pre-order functions: (1) customer service record (CSR) information; (2) address validation; (3) telephone number information; (4) due date information; (5) services and feature information. See *id.*, 15 FCC Rcd at 4015, para. 132. In addition, the Commission determined in the *UNE Remand Order* "that the pre-ordering function includes access to loop qualification information." See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order, 15 FCC Rcd 3696, 3885, para. 426 (*UNE Remand Order*).

¹⁴⁴ As the Commission has explained in prior orders, because characteristics of a loop, such as its length and the presence of various impediments to digital transmission, can hinder certain advanced services technologies, carriers often seek to "pre-qualify" a loop by accessing basic loop make-up information that will assist carriers in ascertaining whether the loop, either with or without the removal of the impediments, can support a particular advanced service. See *Bell Atlantic New York Order*, 15 FCC Rcd at 4021, para. 140.

¹⁴⁵ *SWBT Texas Order*, 15 FCC Rcd at 18426, para. 148; *Bell Atlantic New York Order*, 15 FCC Rcd at 4014, para. 130; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20661-67, para. 105.

interface.¹⁴⁶ We find that the EDI interface allows competing carriers to perform the same full range of pre-ordering functions for both resale services and UNEs that Verizon provides to itself.¹⁴⁷ We note that no commenter alleges that Verizon fails or refuses to offer any of these specific pre-ordering functions. Verizon also demonstrates that competing carriers can successfully build and use application-to-application interfaces. We base our conclusion on the ability of the third-party tester to construct and extensively test the EDI interface for pre-ordering functions.¹⁴⁸ KPMG successfully conducted a functional evaluation and volume and stress tests of the EDI interface, which confirm Verizon's ability to provide the requisite pre-ordering functionality.¹⁴⁹ We also find that Verizon has shown that it allows competing carriers to integrate successfully pre-ordering information into Verizon's ordering interface and the carriers' back office systems.¹⁵⁰ As part of its functional evaluation of the EDI interface, KPMG used pre-order response information to populate subsequent service requests. KPMG found that the pre-order and order field names and formats were compatible, allowing carriers to integrate pre-ordering and ordering interfaces and integrate pre-ordering information into their back office systems.¹⁵¹ In addition, although we do not rely on Verizon's common object request broker architecture interface (CORBA) in reaching our conclusion, we take note that Verizon provides competing carriers with this additional application-to-application interface for pre-order functions.¹⁵²

53. Verizon demonstrates that it provides access to pre-ordering functionality in a manner that allows an efficient competitor a meaningful opportunity to compete. The Commission has held previously that an interface that provides responses in a prompt timeframe and is stable and reliable is necessary for competing carriers to market their services and serve

¹⁴⁶ See Verizon Massachusetts I Application App. A, Vol. 2, Declaration of Kathleen McLean and Raymond Wierzbicki at 9-10, para. 21 (Verizon Massachusetts I McLean/Wierzbicki Decl.).

¹⁴⁷ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 18. See also *SWBT Texas Order*, 15 FCC Rcd at 18427, para. 149; *Bell Atlantic New York Order*, 15 FCC Rcd at 4014, para. 130.

¹⁴⁸ See *infra* Part IV.A.2.h(i).

¹⁴⁹ See KPMG Final Report at 15-69 (providing the results of the LSOG 2 EDI functional evaluation and volume performance test). Specifically, KPMG concluded that Verizon's OSS provided the pre-order functionality Verizon is required to provide (Test POP-1-2-2). KPMG also concluded that Verizon's pre-order systems provided clear, accurate and complete responses and error messages (POP-1-6-1, POP-1-6-2).

¹⁵⁰ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 27.

¹⁵¹ See KPMG Final Report at 60 (Test POP-1-7-1). Although KPMG found an inconsistency in the manner Verizon returned one field of directory listing information, this inconsistency appears to have had minimal competitive impact; KPMG concluded that the pre-order response information returned in this field adequately fulfilled order form input requirements. See *id.* Of course, to the extent Verizon becomes aware of any inconsistencies in field names or formats that would impede a carrier's ability to integrate pre-ordering and ordering functions, we expect that Verizon promptly will design and deploy a software correction or provide the necessary technical assistance to competing carriers in the interface integration. See *Bell Atlantic New York Order*, 15 FCC Rcd at 4021, para. 139.

¹⁵² See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 25.

their customers as efficiently and at the same level of quality as Verizon serves its own customers.¹⁵³ Verizon's performance data demonstrate that Verizon's EDI interface has met or exceeded the relevant benchmarks for interface response time and availability in each of the last four months, with only a few scattered exceptions of negligible competitive impact.¹⁵⁴ KPMG's functional and volume tests of Verizon's LSOG 2 EDI pre-order interface provide additional confirmation of Verizon's satisfactory performance with respect to the availability and response times of its pre-order functionality.¹⁵⁵ We therefore conclude that Verizon's interfaces are available in a stable and consistent manner and afford an efficient competitor a meaningful opportunity to compete.

(ii) Access to Loop Qualification Information

54. *Background.* As the Commission required of SWBT in the recent *SWBT Kansas/Oklahoma Order*,¹⁵⁶ we require Verizon to demonstrate that it provides access to loop qualification information in a manner consistent with the requirements of the *UNE Remand Order*.¹⁵⁷ In particular, we require Verizon to provide access to loop qualification information as part of the pre-ordering functionality of OSS. In the *UNE Remand Order*, the Commission

¹⁵³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4025, para. 145, and 4029, para. 154.

¹⁵⁴ See Verizon Carrier-to-Carrier Performance Standards and Reports, September 2000 – December 2000. The PO 1 series of metrics measures the response times of Verizon's OSS in performing a number of pre-order transactions. Verizon's EDI performance under this series of metrics met or exceeded the applicable benchmark in all four months, with the following exception. In October 2000, Verizon's average response time to reject EDI pre-order queries was 0.68 seconds longer than the applicable benchmark (PO 1-07). We do not deem this delay in response time of less than one second in one month's performance to be competitively significant. The PO 2 series of metrics measures the availability of Verizon's OSS interfaces. While Verizon may not have met the benchmark standard of 100 percent, 24 hour availability for some of the PO 2 metrics measuring EDI pre-order interface availability from September through December 2000, Verizon's performance data under these metrics show no lower than 99.88 percent availability of its EDI interface during this four-month period. We do not consider the 0.12 percent unavailability of Verizon's interface to be competitively significant.

¹⁵⁵ See KPMG Final Report at 47-55. Specifically, KPMG concluded that LSOG 2 EDI pre-order interface capability was consistently available during 100 percent of scheduled hours of operation (Test POP-1-1-1). KPMG found that, following system and documentation enhancements, 98 percent of pre-order transactions submitted as part of its functional test received responses (POP-1-2-1). For its volume test, 99.9 percent of pre-order transactions received responses (POP-1-3-1). For pre-order transactions for which Verizon retail analogue data were available, average response times for transactions submitted by KPMG as part of its functional evaluation met the associated carrier-to-carrier benchmarks, with the exception of pre-order product and service availability (PSA) transactions. However, 95 percent of KPMG's total PSA transactions during its functional evaluation and 99 percent of such transactions during its volume test received responses within 10 seconds (POP-1-4-2, POP-1-4-3, POP-1-5-2). See also KPMG Final Report at 69 (Table 1-18) (volume evaluation of LSOG 2 EDI pre-order response timeliness).

¹⁵⁶ SWBT's section 271 application for Kansas and Oklahoma was the first such application reviewed for its compliance with the *UNE Remand Order* requirements for nondiscriminatory access to loop qualification information. See *SWBT Kansas/Oklahoma Order* at paras. 121-29.

¹⁵⁷ See *UNE Remand Order*, 15 FCC Rcd at 3885-87, paras. 427-31.

required incumbent carriers to provide competitors with access to all of the same detailed information about the loop available to themselves, and in the same time frame as any of their personnel could obtain it, so that a requesting carrier could make an independent judgment at the pre-ordering stage about whether a requested end user loop is capable of supporting the advanced services equipment the requesting carrier intends to install. Under the *UNE Remand Order*, Verizon must provide carriers with the same underlying information that it has in any of its own databases or internal records.¹⁵⁸ The relevant inquiry as required by the *UNE Remand Order* is not whether Verizon's retail arm or advanced services affiliate has access to such underlying information but whether such information exists anywhere in Verizon's back office and can be accessed by any of Verizon's personnel.¹⁵⁹ Moreover, Verizon may not "filter or digest" the underlying information and may not provide only information that is useful in the provision of a particular type of xDSL that Verizon offers.¹⁶⁰ Verizon must provide loop qualification information based, for example, on an individual address or zip code of the end users in a particular wire center, NXX code or on any other basis that Verizon provides such information to itself. Verizon must also provide access for competing carriers to the loop qualifying information that Verizon can itself access manually or electronically. Finally, Verizon must provide access to loop qualification information to competitors "within the same time frame that any incumbent personnel are able to obtain such information," including any personnel in its advanced services affiliate, Verizon Advanced Data, Inc. (VADI).¹⁶¹

55. Currently, Verizon provides four ways for competing carriers to obtain loop make-up information: (1) mechanized loop qualification based on information in its LiveWire database; (2) access to loop make-up information in its Loop Facility Assignment and Control System (LFACS) database; (3) manual loop qualification; and (4) engineering record requests. As we discuss in more detail below, competitors can request loop make-up information from the LFACS and LiveWire databases, or can request that Verizon perform a manual search of its paper records to determine whether a loop is capable of supporting advanced technologies.¹⁶²

¹⁵⁸ See *id.* at 3885, para. 427. For example, to the extent Verizon personnel may access any such information, Verizon must provide competitors with information regarding: (1) the composition of the loop material, including both fiber and copper; (2) the existence, location and type of any electronic or other equipment on the loop, including but not limited to, digital loop carrier or other remote concentration devices, feeder/distribution interfaces, bridge taps, load coils, pair-gain devices, disturbers in the same or adjacent binder groups; (3) the loop length, including the length and location of each type of transmission media; (4) the wire gauge(s) of the loop; and (5) the electrical parameters of the loop, which may determine the suitability of the loop for various technologies. See *id.*

¹⁵⁹ See *id.* at 3886, para. 430.

¹⁶⁰ See *id.* at 3886, para. 428. For example, an incumbent LEC may not provide a "green, yellow, or red" indicator of whether a loop qualifies for its particular xDSL offering in lieu of underlying loop make-up information in its possession. See *id.*; see also *infra* at para. 67.

¹⁶¹ See *UNE Remand Order*, 15 FCC Rcd at 3885-87, paras. 427-31.

¹⁶² See *SWBT Kansas/Oklahoma Order* at para. 122.

56. Verizon's mechanized loop qualification database, known as LiveWire, provides real-time access on a pre-order basis to the loop qualification information VADI's retail personnel use to qualify an end-user customer's line for VADI's ADSL service.¹⁶³ Competing carriers are able to access the LiveWire mechanized database via the Web GUI, CORBA and EDI interfaces. Verizon states that LiveWire provides information on whether a loop is qualified for ADSL service, the length of the loop and, if the loop does not qualify for ADSL service, data on why the loop does not qualify (*e.g.*, presence of Digital Loop Carrier, T-1 in the binder group, or load coils).¹⁶⁴ The information contained in the LiveWire database is "theoretical" or "sampled" loop information, *i.e.*, information about a test sample of loops in a given distribution terminal that is attributed to the rest of the loops in the same terminal.¹⁶⁵ According to Verizon, as of July 2000, the mechanized database included information about loops in 93 percent of Verizon's central offices in Massachusetts with collocation arrangements in place, which covered 98 percent of the access lines in Massachusetts with collocation.¹⁶⁶

57. Competing carriers are also able to use an interim pre-order process to access any loop make-up information stored in Verizon's LFACS database.¹⁶⁷ The loop make-up information contained in LFACS includes actual, loop-specific information.¹⁶⁸ Within 24 hours of a competitive carrier querying LFACS for loop make-up information, Verizon returns all of the

¹⁶³ See Verizon Massachusetts I Application App. A, Vol. 1, Declaration of Paul A. Lacouture and Virginia P. Rueterholz at para. 108 (Verizon Massachusetts I Lacouture/Rueterholz Decl.). See also Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 20.

¹⁶⁴ See Verizon Massachusetts I Lacouture/Rueterholz Decl. at para. 108.

¹⁶⁵ See Letter from Dolores May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 (filed November 3, 2000) (Verizon November 3 *Ex Parte* Letter). Verizon tested a minimum of 10 pairs per hundred pairs in a terminal, or a fraction of 100 pairs if less than a 100 pairs were in the terminal tested. See *id.*

¹⁶⁶ See Verizon Massachusetts I Lacouture/Rueterholz Decl. at para. 108. As an alternative to mechanized loop qualification through the LiveWire database, Verizon states that it also provides competitors with access to a server containing files indicating the working telephone numbers in end offices that have been qualified for Verizon's retail ADSL product. Verizon states that it plans to add loop length information to the files in February 2001. See Verizon Massachusetts II Lacouture/Rueterholz Decl. at para. 33.

¹⁶⁷ According to Verizon, LFACS contains loop make-up information for about 10 percent of Verizon's Massachusetts terminal locations. See Verizon Massachusetts I Reply at 37. Verizon has not provided specific information about the terminals for which LFACS does contain information. Thus, to the extent those terminals serve a greater number of loops (for example, terminals in densely populated urban areas), the 10 percent of terminals for which Verizon has stated LFACS contains loop make-up information could actually reflect a significantly higher proportion of Verizon's loops in Massachusetts than 10 percent. See Verizon November 3 *Ex Parte* Letter (indicating that terminals vary greatly in the number of loops they serve).

¹⁶⁸ LFACS contains loop-specific information including: segment length by gauge; bridge tap location; bridge tap length; loop composition (*e.g.*, copper or fiber); existence of digital single subscriber carrier; the existence, spacing, type and quantity of load coils; and the presence of DLC. See Letter from Dolores May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9, Attach. D, at 6 (filed February 2, 2001) (Verizon February 2 *Ex Parte* Letter).

LFACS information on the loop in the remarks field of the pre-order interface used to make the query.¹⁶⁹ In addition, through its change management process, Verizon has begun implementing a permanent process for providing this information in real-time and in electronically parsed form through its LSOG 4 and LSOG 5 pre-order interfaces, with availability expected by October 2001.¹⁷⁰

58. Verizon also provides a manual loop qualification process. According to Verizon, this manual process provides competing carriers with the same types of information ordinarily available through the mechanized loop qualification process.¹⁷¹ To conduct a manual loop qualification, Verizon's Loop Qualification Center (LQC) first examines information from the LiveWire and LFACS databases, and performs a mechanized line test (MLT) on the loop to verify the actual loop length.¹⁷² If this information is inconclusive, engineers in Verizon's Facilities Management Center examine paper records to determine the loop length, whether or not the loop is qualified and, if it is not, the reasons why.¹⁷³ Unlike loop qualification through the "real time" LiveWire mechanized database, which is designed to return loop qualification information within seconds when queried, the manual qualification process has a standard completion interval of three business days between submission of a request for manual loop qualification and the return of the requested loop information to the competing carrier.¹⁷⁴ Currently, competing carriers

¹⁶⁹ See Verizon February 2 *Ex Parte* Letter at 3-4. Verizon provides evidence that it is consistently meeting its target of returning LFACS loop make-up information within 24 hours. See Verizon Massachusetts II Reply, App. A, Tab 1, Attach. C (showing 100 percent of LFACS queries receiving responses within 24 hours for February 2001). As described below, requesting carriers generally receive LFACS loop information within 2 hours of submitting a request. See *infra* at para. 61, n.183.

¹⁷⁰ See Verizon February 2 *Ex Parte* Letter at 8. Verizon's change management proposal for this new transaction treats it as a "Type 2" or regulatory change. See Verizon Massachusetts II Application at 14-15.

¹⁷¹ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 109. See also Letter from Dolores May, Executive Director Federal Regulatory, Verizon, to Eric Einhorn, Common Carrier Bureau, Federal Communications Commission, CC Docket No. 00-176 at 2 (filed October 17, 2000) (Verizon October 17 *Ex Parte* Letter).

¹⁷² The loop lengths returned by the MLT in the manual qualification process correspond to the actual metallic loop lengths of discrete cable pairs to end users, as opposed to the theoretical loop lengths returned by LiveWire. Loop lengths in LiveWire are based on binder group sampling, for which Verizon has conducted MLT tests on a sample of loops serving a given distribution terminal. See Verizon November 3 *Ex Parte* Letter. See also Letter from Jason Oxman, Senior Government Affairs Counsel, Covad Communications Company, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 at 7, n.11 (filed October 26, 2000) (Covad October 26 *Ex Parte* Letter).

¹⁷³ See Verizon October 17 *Ex Parte* Letter at 3-4 (describing Verizon's manual loop qualification process). This paper records search performed as part of the manual loop qualification process yields a more limited set of loop information than the engineering query discussed below. See *infra* n.174 and para. 59.

¹⁷⁴ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 109. See also Verizon Massachusetts I Application App. A, Vol. 3, Declaration of Elaine M. Guerard and Julie A. Canny at para. 78 (Verizon Massachusetts I Guerard/Canny Decl.). If the manual process indicates a loop is qualified for the requested service, Verizon provides loop-specific information about the length of the line based on MLT, the presence of load coils or bridge tap, and the presence of T-1 in the binder group. If the loop is not qualified, Verizon returns a (continued....)

request manual loop qualification as part of the OSS ordering function by ordering an xDSL loop and indicating in the Local Service Request (LSR) order form that a manual qualification is required. Verizon has begun implementing access to manual loop qualification as a pre-order function. Detailed specifics for this pre-order transaction are being addressed in Verizon's change management process, with complete implementation expected in October 2001.¹⁷⁵

59. Finally, Verizon, through an engineering record request, provides additional types of loop make-up information not returned through the mechanized and manual loop qualification processes. Verizon indicates that competitors may request this engineering query on a pre-order basis.¹⁷⁶ To conduct this engineering query, Verizon's Facilities Management Center conducts a search of loop inventory and paper records. The additional information provided through an engineering query includes the exact locations of load coils, the exact locations and lengths of bridge taps, as well as actual cable gauges and the length of each gauge.¹⁷⁷ According to Verizon, this information is more detailed than the information returned in response to a manual loop qualification request.¹⁷⁸ Furthermore, the engineering query provides loop make-up information for loops not in the LFACS database.¹⁷⁹ The engineering query carries a standard interval of 72 hours for performing the engineering record review.¹⁸⁰ These queries appear to be seldom requested; Verizon performed only 15 engineering queries in Massachusetts between January and June 2000, whereas it performed approximately 11,700 manual loop qualifications in the same period.¹⁸¹

60. *Discussion.* Based on this evidence, we conclude that Verizon demonstrates that it offers nondiscriminatory access to OSS pre-ordering functions associated with determining
(Continued from previous page) _____

"query" notice indicating why the loop is not qualified for the requested service. *See* Verizon October 17 *Ex Parte* Letter at 3-4 (describing Verizon's manual loop qualification process).

¹⁷⁵ *See* Verizon February 2 *Ex Parte* Letter at 4-8. Verizon's change management proposal for this new transaction treats it as a "Type 2" or regulatory change. *See* Verizon Massachusetts II Application at 14-15.

¹⁷⁶ Verizon indicates that, using a manually submitted form, competitors may conduct engineering record requests on a pre-order basis. *See* Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 16, 2001); *see also* "Engineering Query Process Description," at http://128.11.40.241/east/wholesale/html/pdfs/engineering_queryrequest.pdf.

¹⁷⁷ *See* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 110. *See also* Verizon October 17 *Ex Parte* Letter at 4.

¹⁷⁸ *See* Verizon October 17 *Ex Parte* Letter at 4.

¹⁷⁹ *See supra* n.167.

¹⁸⁰ *See* Massachusetts Department Massachusetts I Comments at 293.

¹⁸¹ *See* Verizon Massachusetts I Application App. B., Vol. 34a-b, Tab 443 at 657 (Verizon response to DTE-WCOM-4-11 information request). One commenter indicates that the engineering query is seldom requested due to its high cost, at \$123 per query. *See* Rhythms Massachusetts I Reply App. A, Declaration of Robert Williams at para. 13 (Rhythms Massachusetts I Williams Reply Decl.).

whether a loop is capable of supporting xDSL advanced technologies. We reject commenters' various assertions that Verizon's loop make-up information processes do not comply with its *UNE Remand* obligations. These complaints fall into three categories. First, Covad complains that deficiencies in the interim LFACS process render Verizon's loop information processes noncompliant with the checklist. Second, Rhythms and Covad complain that Verizon's manual loop qualification process is not part of the pre-ordering stage, contrary to the requirements of the *UNE Remand Order*. Finally, several commenters advance various other complaints that deficiencies in Verizon's loop information processes warrant a finding of noncompliance. For the reasons discussed below, we reject these claims.

61. *Interim LFACS Process.* We conclude, contrary to Covad's assertions, that Verizon's offering for LFACS loop make-up information complies with the checklist. Our conclusion is based on both the nature of Verizon's interim process for access to LFACS information coupled with its work in the formal change management process implementing enhanced permanent loop qualification processes.¹⁸² In addition, we are encouraged by Verizon's current plans to develop a permanent fix for loop qualification OSS by October 2001. With respect to the nature of the interim process, we find that Verizon is currently providing useful, detailed information to competing carriers concerning the ability of loops to support xDSL services and is doing so in reasonable time frames. Specifically, although Verizon states that it will return all queries for loop qualification information within 24 hours of receiving a request, in actuality, competitors are generally receiving this information within 2 hours.¹⁸³ Moreover, we find it significant that Verizon's interim loop qualification process is largely automated. For example, competitors are able to submit their loop information queries and receive responses to these queries through Verizon's electronic pre-order interfaces.¹⁸⁴

62. With respect to Verizon's work in the change management process, we find that Verizon has begun actively implementing enhancements to its loop qualification processes under a proposal that is detailed, well-developed, and subject to a prioritized time frame.¹⁸⁵ Extensive software development is required of both Verizon and competing carriers to implement Verizon's change management proposals for LFACS access. Importantly, we find that Verizon has initiated concrete and irreversible steps to implement these changes through its formal change management process. This is not a case, for example, where only a skeletal plan is being submitted to change management. Verizon's proposals provide competitors with comprehensive detail about the business rules and field format requirements of its new loop information processes. Implementation of these processes at a minimum requires extensive software development in

¹⁸² We note, for future applications, that not all interim processes and change management proposals may be sufficient to warrant a finding of checklist compliance.

¹⁸³ See Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed April 3, 2001).

¹⁸⁴ See Verizon February 2 *Ex Parte* Letter at 3.

¹⁸⁵ Verizon states that these system enhancements will be complete by October 2001. See Verizon February 2 *Ex Parte* Letter at 8.

Verizon's interface systems (Web GUI, EDI and CORBA), the Request Manager gateway system, the underlying systems (LFACS, LiveWire), and the data exchange between these systems.¹⁸⁶ Moreover, we recognize that change management is an appropriate and important step in implementing systems enhancements where, as here, such enhancements may substantially impact competing carriers' OSS.¹⁸⁷ In reaching our conclusion, we rely on the nature of Verizon's formal change management process in Massachusetts, which provides for substantial competing carrier input and participation and for oversight by the Massachusetts Department.¹⁸⁸ We also rely on the fact that Verizon has introduced its proposals as regulatory changes, subject to the prioritized implementation process for regulatory requirements.¹⁸⁹ Finally, we note that Verizon has established October 2001 as the expected completion date for its system enhancements.¹⁹⁰

63. Under these circumstances, we reject Covad's claim that checklist compliance is not met until the completion of the change management process.¹⁹¹ To find such would perversely incent competing carriers to delay implementation of improved OSS and BOCs to circumvent the change management process. Given these specific circumstances, we find that Verizon's processes for access to LFACS comply with the checklist. Verizon has an interim process for LFACS access in place, and is actively using the change management process in implementing a proposal that is detailed, well-developed, subject to a prioritized time frame and firm completion date, and carries substantial implications for competitors' OSS.

64. We also reject Covad's other arguments that Verizon's LFACS process fails to satisfy its *UNE Remand* obligations for the following reasons. Covad objects that competing

¹⁸⁶ See Verizon February 2 *Ex Parte* Letter at 5.

¹⁸⁷ As the Commission has previously recognized, "[c]ompeting carriers need information about and specifications for an incumbent's systems and interfaces in order to develop and modify their systems and procedures to access the incumbent's OSS functions." See *Bell Atlantic New York Order*, 15 FCC Rcd at 3999, para. 102. For competing carriers to successfully interface with and make use of Verizon's new loop information processes, they will need to conduct extensive development with respect to their own systems and interfaces. See Verizon February 2 *Ex Parte* Letter at 5. The Commission has recognized that the existence of an adequate change management process and evidence that the BOC has adhered to this process over time demonstrates that the BOC is adequately assisting competing carriers to use available OSS functions. See *Bell Atlantic New York Order*, 15 FCC Rcd at 4000, para. 102. As discussed below, we find Verizon's change management processes in Massachusetts to be satisfactory. See *infra* Part IV.A.2.h.

¹⁸⁸ See *infra* Part IV.A.2.h(i).

¹⁸⁹ See Verizon Massachusetts II Application at 14-15; see also Verizon Massachusetts I McLean/Wierzbicki Decl., Attach. S at 18, 36-39, 71-77 (timeline, process flow, and description of regulatory change process).

¹⁹⁰ We note that, while our analysis of Verizon's compliance relies in part on the enhancements discussed in Verizon's application, this Order does not address whether Verizon was in compliance with the requirements of the *UNE Remand Order* prior to adopting its interim process for access to LFACS and implementing additional enhancements through its change management process.

¹⁹¹ See Covad Massachusetts II Reply at 27.

carriers must wait 24 hours to receive LFACS loop make-up information under the interim process, whereas Verizon's personnel are able to access this information electronically "in an instant."¹⁹² As already explained, however, requesting carriers generally receive LFACS information through the interim process within 2 hours.¹⁹³ Covad also objects that the interim process does not provide loop information in electronically parsed form, to allow for integration between pre-ordering and ordering interfaces.¹⁹⁴ Verizon's interim process does, however, allow competitors to submit queries for and obtain LFACS loop information through Verizon's electronic pre-order interfaces.¹⁹⁵ Furthermore, with respect to both of these objections to the interim process, our finding of checklist compliance does not rely on Verizon's interim processes alone. Rather, as explained above, our conclusion rests on the nature of Verizon's interim processes for access to LFACS coupled with its work in change management enhancing this process. The permanent process for LFACS access will provide the functionality and features Covad seeks.¹⁹⁶ Until this permanent system enhancement is in place, Verizon has provided competing carriers with an adequate process for obtaining LFACS loop information quickly and electronically. Finally, Covad objects that Verizon does not return working telephone number or serving address information with the LFACS information it returns, making it more difficult for competitors to associate the information with a particular loop.¹⁹⁷ We find, however, that requesting carriers are able to associate LFACS loop information with working telephone numbers or serving area addresses, contrary to Covad's assertions.¹⁹⁸

65. *Manual Loop Qualification.* We also reject Rhythms' and Covad's complaints that Verizon has so far failed to develop a pre-ordering interface for manual loop qualification.¹⁹⁹ We find that this is insufficient to render Verizon's loop information offering to competitors noncompliant with the requirements of the *UNE Remand Order*. For the most part, the

¹⁹² See Covad Massachusetts II Comments at 33.

¹⁹³ See *supra* at para. 61, n.183.

¹⁹⁴ See Covad Massachusetts II Comments at 33.

¹⁹⁵ See Verizon February 2 *Ex Parte* Letter at 3.

¹⁹⁶ See *supra* at paras. 60-63; see also Verizon February 2 *Ex Parte* Letter at 4-5 and Attach. D. Verizon states that these system enhancements will be complete by October 2001, a schedule to which we expect Verizon to adhere. See Verizon February 2 *Ex Parte* Letter at 8.

¹⁹⁷ See Covad Massachusetts II Reply at 27.

¹⁹⁸ Verizon states that, if a competitive carrier's representative uses the end user's telephone number to identify the loop for which information is being sought, the LFACS loop information returned will be associated with that telephone number on that representative's "work list." Verizon also states that, if the representative uses the end user's address to identify the loop, Verizon will include that address along with the LFACS loop make-up information returned in the "remarks" field of the pre-order interface. See Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed April 4, 2001).

¹⁹⁹ See Rhythms Massachusetts I Comments at 33-34; Covad Massachusetts I Reply at 10.

information returned through the manual loop qualification process is already provided to competitors through other loop qualification processes that are available at the pre-ordering stage.²⁰⁰ The only information returned through manual loop qualification not otherwise available at the pre-ordering stage is the result of a loop-specific MLT test.²⁰¹ MLT information is merely a small subset of the information returned through the manual loop qualification process. We find that, given the totality of the circumstances, the inability of competitors to access this subset of information on a pre-order basis is not fatal to Verizon's application. Moreover, we rely on Verizon's work in the change management process to implement pre-order access to manual loop qualification, including MLT test results, through its LSOG 4 and LSOG 5 pre-order interfaces.²⁰²

66. *Other Arguments.* Finally, commenters make various other claims alleging that Verizon's provision of loop make-up information is discriminatory and violates the requirements of the *UNE Remand Order*, which we reject for the following reasons. For example, ALTS and Covad claim that Verizon's mechanized loop make-up information database -- LiveWire -- fails to meet *UNE Remand* requirements because it sometimes contains inaccurate and incomplete information, hampering competing carriers' ability to order xDSL loops.²⁰³ As we noted above, the LiveWire database Verizon makes available to competing carriers is the same database used by Verizon's retail affiliate to qualify loops.²⁰⁴ Thus, any inaccuracies or omissions in Verizon's LiveWire database are not discriminatory, because they are provided in the exact same form to both Verizon's affiliate and competing carriers.²⁰⁵

67. We also reject Covad's assertion that Verizon's inclusion of information in its LiveWire database regarding whether a loop qualifies for VADI's retail ADSL service violates the *UNE Remand Order*.²⁰⁶ Covad contends that Verizon's use of this information denies competing

²⁰⁰ See *supra* at para. 58. For example, competitors currently have pre-order access to loop information stored in the LiveWire and LFACS databases, separate and apart from information from those databases returned through the manual loop qualification process. See *supra* at paras. 56-57. Competitors may also obtain pre-order access to loop information in Verizon's paper records through an engineering query. See *supra* at para. 59.

²⁰¹ See *supra* at para. 58 & n.172.

²⁰² See *supra* at para. 58. See also Verizon February 2 *Ex Parte* Letter at 4-5, and Attach. D.

²⁰³ See ALTS Massachusetts I Comments at 27-28; ALTS Massachusetts II Comments at 18-19; Covad Massachusetts II Reply at 27-28.

²⁰⁴ See *supra* n.163.

²⁰⁵ The Commission came to the same conclusion regarding similar allegations of inaccuracies in SWBT's loop make-up information database, which was also used both by retail personnel in SWBT's separate data affiliate and competitors. See *SWBT Kansas/Oklahoma Order* at para. 126. We note that a change to LiveWire is currently in change management. When this change is implemented, LiveWire will indicate when it does not contain loop qualification data for a particular service address or telephone number, and indicate that a manual loop qualification should be requested. Verizon states that this change will follow the change management timeline for a June 2001 release. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 22.

²⁰⁶ See Covad Massachusetts I Reply at 9-10.

carriers access to more detailed loop information and does not allow carriers to identify the physical attributes of the loop to make a more informed judgment about the possibility of offering service. We reject this contention because we find that this information is provided to competitors *in addition* to the other loop make-up information required by the *UNE Remand Order*, and not *instead of* required information. Verizon's designation of whether or not a loop qualifies for VADI's retail ADSL service is a summary of the loop make-up information contained in LiveWire and an alternative way to provide help in determining whether the loop is adequate for providing advanced services.²⁰⁷ It does not replace the loop make-up information contained in LiveWire that is also returned with each query. In addition to the loop make-up information contained in LiveWire, competing carriers can also access actual loop make-up information from Verizon's LFACS database to the extent it is available and, upon request, Verizon will perform an engineering search of its paper records to determine the actual make-up of the loop. We therefore find that Verizon's designation of whether a loop qualifies for VADI's retail ADSL service merely supplements the other loop make-up information Verizon provides.

68. Moreover, we reject ALTS' argument that Verizon's current loop qualification processes, including its interim process for allowing competitors access to LFACS, fail to satisfy *UNE Remand* obligations because portions of these processes are manual rather than electronic. Specifically, ALTS asserts that "the only truly competitive way for [competing carriers] to receive [loop information] is electronically."²⁰⁸ The Commission specifically rejected such an assertion in the *UNE Remand Order*. That order makes clear that, to the extent an incumbent has not compiled loop information for itself, it is not required to "conduct a plant inventory and construct a database on behalf of requesting carriers." Instead, the incumbent is obligated to provide requesting competitors with nondiscriminatory access to loop information within the same time frame whether it is accessed manually or electronically.²⁰⁹

69. We also reject Sprint's contention that Verizon fails to meet its obligations under the *UNE Remand Order* because it fails to provide unfiltered access to information about its digital loop carrier (DLC) facilities. Specifically, Sprint contends that Verizon only offers information about DLC on a line-by-line basis, rather than also on the basis of "zip code of the end users in a particular wire center, NXX code, or on any other basis that the incumbent provides such information to itself," as stated in the *UNE Remand Order*.²¹⁰ The *UNE Remand Order*, however, does not require that Verizon provide loop information on the basis of zip code and NXX code if none of Verizon's personnel are able to access loop information on those bases. Rather, the *UNE Remand Order* sets forth a standard of nondiscrimination, requiring incumbents to provide loop information on any basis that any incumbent personnel may obtain that information.²¹¹ Verizon indicates that, through both its interim and long-term LFACS access

²⁰⁷ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 108.

²⁰⁸ See ALTS Massachusetts II Comments at 18.

²⁰⁹ See *UNE Remand Order*, 15 FCC Rcd at 3886, para. 429.

²¹⁰ See Sprint Massachusetts II Comments at 5 (citing *UNE Remand Order*, 15 FCC Rcd at 3885, para. 427).

²¹¹ See *UNE Remand Order*, 15 FCC Rcd at 3885, para. 427.

processes, it will provide: (1) an indication that DLC equipment is present on the facility for which loop make-up has been requested; and (2) the type of DLC equipment present.²¹² The record does not contain any evidence that DLC information is available to any Verizon personnel in any form other than on a line-by-line basis, nor is there information on the record that any Verizon personnel have access to DLC information beyond the information returned through an LFACS query. Without more than Sprint's allegations to the contrary, we decline to find that Verizon fails to provide competitors with nondiscriminatory access to its loop information systems, including information about DLC facilities.

d. Ordering

70. In this section, we address Verizon's ability to provide competing carriers with access to the OSS functions necessary for placing wholesale orders. We find that Verizon demonstrates -- with performance data, the results of its third-party test, and other evidence -- that it provides competing carriers with access to OSS ordering functions in a manner that allows these carriers a meaningful opportunity to compete or in the same time and manner as it provides those functions to its retail operations. First, in subparts (i) through (iv), we address those same elements of ordering as have been probative in past section 271 orders:²¹³ confirmation notices, rejection notices, flow-through, completion notices, and jeopardy information. Then in subpart (v) we address commenters' concerns that Verizon's ordering OSS is susceptible to the same problems that led to a Consent Decree between Verizon (then Bell Atlantic) and the Commission after the company's section 271 application was approved in New York.

(i) Order Confirmation Notices

71. Using the same analysis and looking to similar performance measurements as in prior orders, we find that Verizon provides order confirmation notices in a manner that affords competitors a meaningful opportunity to compete.²¹⁴ Data indicate that for orders that flow through²¹⁵ its systems without manual handling, Verizon consistently exceeds the Massachusetts Department's benchmark of returning 95 percent of confirmation notices within two hours.²¹⁶ For orders that require some amount of manual processing (*e.g.*, complex orders, orders for nine or more loops), Verizon generally exceeds the Massachusetts Department's benchmark, with

²¹² See Letter from Dee May, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed February 26, 2001) (Verizon February 26 *Ex Parte* Letter).

²¹³ See *SWBT Kansas/Oklahoma Order* at para. 135; *Bell Atlantic New York Order*, 15 FCC Rcd at 4035, para. 163.

²¹⁴ See *SWBT Texas Order*, 15 FCC Rcd at 18438-40, paras. 171-73; *Bell Atlantic New York Order*, 15 FCC Rcd at 4035-37, para. 164, 4047-48, para. 180.

²¹⁵ See *infra* Part IV.A.2.d(iii) (discussing order flow-through in detail).

²¹⁶ For orders that flow through, Verizon returned such notices 96.56 to 99.89 percent of the time in the period from September through December 2000. See OR 1-02 (percent on time local service request confirmation, flow-through).

scattered exceptions relating to resale two-wire digital services, resale special services of ten or more lines, and UNE DS-1 and DS-3 orders. The disparities for two-wire digital services and resale special services were minimal.²¹⁷ Although the disparities for UNE DS-1 and DS-3 order confirmations were more significant,²¹⁸ confirmations for these orders made up less than one percent of all confirmations from September through December.²¹⁹ Absent evidence of discrimination or competitive harm, we find that this disparity has little competitive impact in light of the small number of those orders. We also find that Verizon's confirmation notices accurately reflect competing carriers' orders.²²⁰

72. Our conclusion that Verizon's performance is acceptable is further supported by the results of KPMG's examination of Verizon's order confirmation process and performance. KPMG found that Verizon timely returns confirmations for flow-through orders and non-flow-through orders upwards of 96 percent of the time.²²¹ The Massachusetts Department likewise concluded that Verizon provides timely confirmation notices.²²²

73. We reject commenters' arguments that Verizon fails to provide confirmation notices adequately. ASCENT (on behalf of its members) and OnSite assert without support that they experience problems with confirmation timeliness and accuracy.²²³ We decline to find that these vague assertions overcome Verizon's specific evidence showing that it provides

²¹⁷ For resale orders for two-wire digital services, Verizon returned 94.64, 92.30, 94.87, and 92.11 percent of confirmation notices within 72 hours for September through December respectively. This performance is just under the benchmark and does not appear to be consistently deteriorating. See OR 1-04 (percent on time local service request confirmation < 10 lines, no flow-through). For resale orders for special services of ten or more lines, Verizon returned confirmations on time 88.88 percent of the time in September, increasing through December when Verizon returned confirmations on time 100 percent of the time. See OR 1-06 (percent on time local service request confirmation, no flow-through, electronically submitted).

²¹⁸ For UNE DS-1 and DS-3 orders of less than ten lines, Verizon fell well below the benchmark from September through December, achieving no more than a 50 percent on time rate. See OR 1-04 (percent on time local service request confirmation < 10 lines, no flow-through). For further discussion of Verizon's performance with regard to DS-1s and DS-3s, see *infra* Parts IV.B & V.C.

²¹⁹ See total confirmations as calculated from Verizon September through December Performance Data.

²²⁰ Each month, Verizon examines a sample of confirmation notices from manually processed orders for accuracy. In every month from September through December, Verizon exceeded the Massachusetts Department's benchmark of 95 percent error-free confirmations, with the exception of November when 94.05 percent and December when 92.75 percent of the sample of manually processed UNE-L orders was error-free. We find this disparity to be isolated and slight. See OR 6-03 (percent accuracy). We do not address WorldCom's complaints regarding July data for order accuracy because more recent data show acceptable performance. See WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at para. 28.

²²¹ See KPMG Final Report at 50-51 (Test POP-1-4-4 and -1-4-5 (EDI)), 102 (Test POP-2-4-1 and -2-4-2 (GUI)).

²²² See Massachusetts Department Massachusetts I Comments at 147.

²²³ See ASCENT Massachusetts I Comments at 10; OnSite Massachusetts I Comments at 8, 18; ASCENT Massachusetts II Comments at 20.

confirmation notices in a manner that affords competing carriers a meaningful opportunity to compete.²²⁴

(ii) Order Rejection Notices and Order Rejections

74. We agree with the Massachusetts Department that Verizon provides competing carriers with order rejection notices in a manner that allows them a meaningful opportunity to compete.²²⁵ Verizon's performance data demonstrate that it returns order rejection notices in a timely manner over both EDI and the web GUI. From September through December, Verizon returned rejection notices for orders that flow through its system within two hours more than 97 percent of the time.²²⁶ In the same period, for orders that require some manual processing, Verizon returns rejection notices within the number of hours required for each particular service, with minor exceptions.²²⁷ Furthermore, KPMG found that Verizon timely and appropriately returns rejection messages.²²⁸ Absent any clear evidence of discrimination or competitive harm, we find that this performance demonstrates compliance with our requirements.

75. We recognize, however, that on average for all carriers combined, Verizon rejects a substantial number of orders. From September through December, Verizon rejected approximately 43 to 49 percent of resale orders and 21 to 25 percent of UNE orders.²²⁹ The Commission does not, however, hold a BOC accountable for rejects that occur for reasons within a competing carrier's control. As in the *SWBT Kansas/Oklahoma Order*, *SWBT Texas Order*, and *Bell Atlantic New York Order*,²³⁰ rejections in this instance vary widely by individual competing carrier: among carriers submitting the most orders in May, June, or July, rejection rates

²²⁴ We decline to address commenters' assertions about data from before September 2000 when later data are available. See, e.g., Winstar Massachusetts I Comments at 22.

²²⁵ See Massachusetts Department Massachusetts I Comments at 147.

²²⁶ See OR 2-02 (Percent On Time LSR Reject, Flow-Through).

²²⁷ See OR 2-04 (Percent On Time LSR Reject < 10 Lines); OR 2-06 (Percent On Time LSR Reject >= 10 Lines). The exceptions were isolated and slight. In September, Verizon returned rejections for resale POTS and prequalified complex orders on time 94.73 percent of the time. See OR 2-04. Also, Verizon returned rejections for UNE special services orders on time 91.37 percent of the time in November and 93.62 percent of the time in December. See OR 2-04. Finally, for UNE orders of less than 10 lines that were faxed in (rather than submitted electronically), Verizon returned rejections on time in October 79.55 percent of the time, in November 90.63 percent of the time, and in December 92.31 percent of the time. See OR 2-08 (percent on time LSR reject < 10 lines). This performance is steadily improving and in recent months has been only slightly below the 95 percent benchmark. We do not address comments based on March through July data because more recent data are available. See, e.g., WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at para. 28.

²²⁸ See KPMG Final Report at 52-53 (Tests POP-1-4-6 & POP-1-4-7 (EDI)), 105 (Test POP-2-6-5 (GUI)).

²²⁹ See OR 3-01 (Percent Orders Rejected).

²³⁰ See *SWBT Kansas/Oklahoma Order* at para. 143; *SWBT Texas Order*, 15 FCC Rcd at 18442, para. 176; *Bell Atlantic New York Order*, 15 FCC Rcd at 4045, para. 175, 4050, para. 183.

varied from about 5 to 83 percent.²³¹ Because all competing carriers interface with the same Verizon system, we find, on this record, that it would not be appropriate to attribute this wide range of results entirely to Verizon. The Massachusetts Department likewise determined that “the efforts put forth by the [competing carriers] in submitting accurate [local service requests] are very strongly tied to the overall order reject rates reported by VZ-MA.”²³² In light of this variation, we conclude that the overall reject rates experienced by competing carriers in this instance do not indicate flaws in Verizon’s OSS.

76. Two commenters, OnSite and ASCENT (on behalf of its members), allege that they have problems receiving timely rejection notices.²³³ Their assertions are not supported, however, by any specific evidence. Absent such evidence, these assertions are insufficient to rebut Verizon’s evidence of compliance with this checklist item. We also disagree with Rhythms’ assertion that Verizon’s rejection performance does not satisfy our standards for section 271 approval because Verizon was rejecting its orders for “defective characters” and has not performed a root cause analysis on this problem.²³⁴ We are not able to conclude based on the evidence that Rhythms provides that this is a problem with Verizon’s OSS and not Rhythms’. Finally, ALTS points to a KPMG observation regarding inappropriate rejections of ISDN resale orders.²³⁵ This observation was successfully closed, and in the absence of further evidence we believe the issue is resolved.²³⁶

(iii) Order Flow-Through Rate

77. We agree with the Massachusetts Department that Verizon’s OSS are capable of flowing through orders in a manner that affords competing carriers a meaningful opportunity to compete.²³⁷ In recent section 271 orders, the Commission has examined flow-through rates²³⁸ largely for their potential to indicate problems elsewhere in a BOC’s OSS. In particular, low flow-through rates, combined with other independent record evidence, can be indicators of:

²³¹ See Verizon Massachusetts I McLean/Wierzbicki Decl. Attach. I.

²³² Massachusetts Department Massachusetts I Comments at 113.

²³³ See ASCENT Massachusetts I Comments at 10; OnSite Massachusetts I Comments at 8; ASCENT Massachusetts II Comments at 20. WorldCom points to commercial data from March through June 2000; we do not generally address commenters’ claims regarding old data when more recent data are available.

²³⁴ Rhythms Massachusetts I Comments at 22.

²³⁵ See ALTS Massachusetts I Comments at 23.

²³⁶ See Massachusetts Department Massachusetts I Reply at 22.

²³⁷ See Massachusetts Department Massachusetts I Comments at 107 (finding that “VZ-MA’s systems are quite capable of allowing [competing carriers] and resellers to attain high levels of order flow-through and of sustaining future commercial volumes”), 147-48.

²³⁸ Competing carriers’ orders “flow through” if they are submitted electronically and pass through Verizon’s ordering OSS into its back office systems without manual intervention.

(1) failure to provision orders in a timely manner; (2) failure to provide competing carriers with complete, up-to-date business rules and ordering codes; (3) lack of integration between pre-ordering and ordering functions; (4) failure to provide order status notices electronically; and (5) inability to process competing carriers' orders at reasonably foreseeable commercial volumes in a nondiscriminatory manner.²³⁹ Flow-through rates, therefore, are not so much an end in themselves, but a tool used to indicate a wide range of possible deficiencies in a BOC's OSS that may deny an efficient competitor a meaningful opportunity to compete in the local market. As discussed elsewhere in this Order, these specific deficiencies are not present here.²⁴⁰ As a result, we use flow-through here not as a "conclusive measure of nondiscriminatory access to ordering functions,"²⁴¹ but as one indicium among many of the performance of Verizon's OSS.

78. Although Verizon's commercial data show low *average* total flow-through rates -- ranging from about 46 to 49 percent for resale orders and 51 to 55 percent for UNE orders from September through December²⁴² -- we conclude, as the Massachusetts Department did,²⁴³ that Verizon's OSS is *capable* of flowing through competing carriers' orders in substantially the same time and manner as Verizon's own orders. Some competing carriers are achieving much higher flow-through rates than others. Data regarding resale orders show that carriers that placed the most orders in July 2000 had total flow-through rates for resale orders varying from 0 to 90.09 percent; data regarding UNE-P orders similarly show that carriers that placed the most orders in July 2000 had total flow-through rates for such orders varying from 66.10 to 70.59 percent.²⁴⁴ Because all competing carriers interface with the same Verizon system, we find, on this record, that it would not be appropriate to attribute this wide range of results entirely to Verizon. The Commission has consistently stated that a BOC is not accountable for orders that fail to flow through due to competing carrier-caused errors.²⁴⁵ Moreover, our conclusion that Verizon's systems are capable of achieving high overall levels of order flow-through is reinforced by KPMG's testing. When KPMG submitted test orders, it achieved a flow-through rate of 100 percent for both resale and UNE-L orders that are designed to flow through Verizon's systems.²⁴⁶

²³⁹ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4034, para. 162; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20671, para. 108.

²⁴⁰ See *infra* Part IV.A.2.e (provisioning); *infra* Part IV.A.2.h(i) (documentation); *supra* Part IV.A.2.c (integration); *supra* Parts IV.A.2.d(i), IV.A.2.d(ii), and *infra* Part IV.A.2.d(iv) (ordering notifiers); *infra* para. 81 (scalability).

²⁴¹ *Bell Atlantic New York Order*, 15 FCC Rcd at 4034, para. 161.

²⁴² See OR 5-01 (Percent Flow-Through Total).

²⁴³ See *supra* n.237.

²⁴⁴ See Verizon Massachusetts I McLean/Wierzbicki Decl. Attach. H.

²⁴⁵ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4039-40, para. 167, 4049, para. 181; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20674, para. 111.

²⁴⁶ See KPMG Final Report at 123-24 (Tests POP-3-1, POP-3-2, POP-3-3) (results after correcting Verizon's documentation). In its "commercial flow-through test," KPMG examined a sample of the New York and Massachusetts orders of two competing carriers to determine the rate of flow-through for flow-through eligible (continued....)

We expect that Verizon's flow-through rates will improve over time as individual carriers gain experience with the OSS and as Verizon conducts monthly workshops for competing carriers to help them improve their order submissions.²⁴⁷

79. We disagree with commenters that we should reject Verizon's application based on its average flow-through rates or because some kinds of orders are not designed to flow through.²⁴⁸ Specifically, WorldCom first argues that Verizon's flow-through rates are too low. It points out that Verizon's Massachusetts rates are below the rates in New York at the time of section 271 approval there, and it argues that Verizon should be reporting on achieved flow-through, as it does in New York. WorldCom also disagrees that Verizon should be permitted to rely on UNE-P flow-through rates to show that competing carrier orders can flow through.²⁴⁹ Second, WorldCom argues that KPMG's test revealed problems with Verizon's flow-through in Massachusetts. It points out that KPMG's commercial test shows a less than 60 percent achieved flow-through rate and that four orders that flowed through for Verizon did not flow through in the wholesale environment.

80. As we explain above, Verizon has shown that its OSS is *capable* of flowing competing carrier orders through. The commercial data, particularly the individual carrier reports, demonstrate that some carriers are capable of achieving high flow-through rates. Verizon's showing that some carriers achieve high UNE-P flow-through rates is not its sole showing that its OSS can flow through orders, but is incremental evidence that some carriers are achieving high flow-through. We do not specifically need Verizon's achieved flow-through figures in order to determine that Verizon's OSS are capable of offering high flow-through. The commercial data are the most probative evidence that Verizon provides nondiscriminatory access to its OSS. KPMG's functionality test, which showed good flow-through, supports our

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orders (achieved flow-through) and the overall rate of flow-through (total flow-through) for those carriers over a two week period. *See id.* at 116 & n.70. Achieved flow-through was 59 percent and total flow-through was 35 percent. *See id.* at 126. KPMG discounted the results of this test, because its "primary assessment methodology" was the testing of KPMG orders described in the text above. *Id.* The Massachusetts Department also discounted the results of KPMG's commercial test, particularly because the test examined orders placed in New York as well as Massachusetts, and at a time when Verizon was addressing order processing errors in New York. *See* Massachusetts Department Massachusetts I Comments at 143. Without knowing whether the two carriers KPMG selected for its commercial test were representative of competing carriers in general, and for the reasons stated by the Massachusetts Department, we are not persuaded that the results of KPMG's commercial test show discrimination.

²⁴⁷ *See* Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 53. We also note that the Massachusetts Department has added a special provision on flow-through to the Massachusetts PAP. *See infra* n.257.

²⁴⁸ *See* ASCENT Massachusetts I Comments at 11; OnSite Massachusetts I Comments at 18; Rhythms Massachusetts I Comments at 22-23; Winstar Massachusetts I Comments at 16, 21; ASCENT Massachusetts II Comments at 21. We do not address commenters' claims regarding data from early 2000 when more recent data are available.

²⁴⁹ WorldCom Massachusetts I Comments at 47, 52; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 155-64; WorldCom Massachusetts I Kinard Decl. at para. 8; WorldCom Massachusetts I Reply at 39; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. at paras. 23-24.

determination. While its commercial test does not, KPMG itself discounted its commercial test, and the Massachusetts Department concurred that the commercial test was not as probative as the functionality test. Finally, the Massachusetts Department has added a special provision on flow-through to the Performance Assurance Plan (PAP); Verizon must report there both achieved and total flow-through.²⁵⁰ This addition will provide a substantial disincentive to discriminate against competing carriers with regard to flow-through.

81. We also agree with the Massachusetts Department that Verizon is timely and accurately processing orders that do not flow through,²⁵¹ and that Verizon's ordering systems are sufficiently scalable to handle reasonably foreseeable commercial volumes of orders in a nondiscriminatory manner.²⁵² Verizon has been able to maintain or improve upon its performance while order volumes have generally increased.²⁵³ KPMG also concluded that Verizon's systems are scalable.²⁵⁴

82. Some commenters have expressed concern that low levels of flow-through, the commensurate higher levels of manual processing, or other inadequacies limit the scalability of Verizon's OSS.²⁵⁵ In particular, the Department of Justice expressed concern in its first evaluation that Verizon has not shown its OSS to be scalable, because KPMG's test was less rigorous than its test in New York and because the Massachusetts PAP had less deterrent force than the New York plan.²⁵⁶ The Department of Justice did not raise this concern in its

²⁵⁰ See Verizon Jan. 30 *Ex Parte* Letter Attach. at 14.

²⁵¹ See Massachusetts Department Massachusetts I Comments at 148; *supra* para. 71 (confirmation timeliness for non-flow-through orders); *supra* para. 74 (rejection notice timeliness for non-flow-through orders); *supra* para. 71 & n.220 (confirmation accuracy for manually processed orders). From September through December, Verizon processed these orders with 90 to 99 percent accuracy (with the exceptions of resale orders in September, for which only 82.74 percent of orders were manually processed without error, UNE-P orders in December, for which 89.62 percent were without error, and UNE-L orders in December, for which 88.86 percent were without error). See OR 6-01 (Percent Accuracy, Orders); OR 6-02 (Percent Accuracy, Opportunities). We do not address complaints about data for months before September 2000 as more recent data are available.

²⁵² See Massachusetts Department Massachusetts I Comments at 148.

²⁵³ The total number of PONs increased from 31,987 in May to 44,368 in December. See OR 3-01 (Percent Orders Rejected, competing carrier aggregate observances).

²⁵⁴ KPMG found in its Capacity Management Evaluation that Verizon's OSS are designed "in a manner that would allow them to scale to meet increases in demand." KPMG Final Report at 238 (Test POP-8-1-14).

²⁵⁵ See ALTS Massachusetts I Comments at 24; OnSite Massachusetts I Comments at 18; Winstar Massachusetts I Comments at 17, 21, 23; WorldCom Massachusetts I Comments at 48; WorldCom Massachusetts I Reply at 39; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. at para. 25.

²⁵⁶ See Department of Justice Massachusetts I Evaluation at 22.

Massachusetts II Application comments, and we believe that these concerns are addressed by the more recent Massachusetts PAP.²⁵⁷

(iv) Order Completion Notices and Jeopardy Information

83. We conclude that Verizon provides billing and provisioning completion notifiers and jeopardy information in a manner that affords competing carriers a meaningful opportunity to compete. After provisioning an order that requires physical work, Verizon updates its Service Order Processor to reflect that the work has been done; if an order requires no physical work (*e.g.*, feature changes), the Service Order Processor is automatically updated during overnight processing. The Service Order Processor then communicates with the appropriate Verizon gateway to send a provisioning completion notice to the competing carrier. The Service Order Processor also communicates to Verizon's billing system that the work has been completed. Verizon's billing records are updated overnight, and Verizon sends a billing completion notice to the competing carrier the next day.²⁵⁸

84. Verizon's commercial performance indicates that it provides completion notices in a nondiscriminatory fashion. Verizon consistently meets the benchmark set by the Massachusetts Department for timely delivery of both provisioning completion notices and billing completion notices.²⁵⁹ Verizon has begun reporting on new measures designed to track how long it takes to update its billing systems after performing the relevant work. While these are "parity" measures, Verizon has not yet begun reporting the data for its retail operations. Nonetheless, the data regarding its wholesale performance generally show that it is updating its billing systems on average in less than a day.²⁶⁰ The Massachusetts Department also found that Verizon's current

²⁵⁷ See *infra* para. 88 and Part VIII.B.1. The Massachusetts PAP contains a special provision on flow-through: Verizon must achieve 80 percent total flow-through and 95 percent achieved flow-through for UNE orders. See Verizon Jan. 30 *Ex Parte* Letter Attach. at 14.

²⁵⁸ See Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 75-76.

²⁵⁹ According to data for September through December, Verizon returned provisioning and billing completion notices on time (by noon the next business day) 97 to 100 percent of the time for both resale and UNE orders. See OR 4-02 (completion notice - percent on time); OR 4-05 (work completion notice - percent on time). KPMG's test results are inconsistent with the data reflecting actual commercial usage. KPMG found that 92.9 percent of provisioning completion notices and 74.7 percent of billing completion notices were delivered over EDI by noon the next business day; and that 2.3 percent of the billing completion notices and 3.3 percent of the provisioning completion notices it expected to receive never arrived. See KPMG Final Report at 53-54 (Tests POP-1-4-8, POP-1-4-9). However, because KPMG did not evaluate the timeliness of completion notifiers using the same business rules as set out by the carrier-to-carrier working group, *see id.*, we cannot directly compare KPMG's test results against the commercial data Verizon provided, and we decline to find noncompliance on the basis of these test results.

²⁶⁰ See OR 4-06 (Average duration - work completion (SOP) to bill completion). In addition, from September through December, Verizon took more than one business day to update the billing systems for 13.99, 12.84, 15.29, and 11.99 percent of resale orders; and 9.94, 8.38, 10.66, and 5.38 percent of UNE orders. See OR 4-08 (percent SOP to bill completion > 1 business day). Also, in the same time period, Verizon took more than four business days to update its billing systems for only 1.56, 1.07, 1.95, and 0.38 percent of resale orders; and 4.06, 3.61, 2.35, and 0.23 percent of UNE orders. See OR 4-07 (percent SOP to Bill Completion >= 5 business days).

performance is satisfactory,²⁶¹ and we are encouraged by the Massachusetts Department's recent decision to add new measures to the PAP, which we discuss below.

85. We agree with the Massachusetts Department²⁶² that the order status and jeopardy information system created by Verizon for wholesale orders is nondiscriminatory because it allows competing carriers to access order status and jeopardy information, to the extent that it is available, in substantially the same time and manner as Verizon's retail representatives can access such information. Verizon makes jeopardy information available to its retail representatives and to competing carriers in the manner described in the *Bell Atlantic New York Order*.²⁶³ Verizon does not actively provide jeopardy notices, except that it follows the same hot cut procedures it first developed and implemented in New York.²⁶⁴

86. WorldCom asserts that because of "systems problems on Verizon's side," it has been unable to access its jeopardy reports for some days in December 2000 and January 2001.²⁶⁵ Verizon responds that it investigated and found a problem with the back-office OSS that formats the reports; pending implementation of a fix, Verizon is formatting the reports manually.²⁶⁶ We find that the reports are being provided in a nondiscriminatory manner pending the fix, and that any disruption has not had a competitive impact.

(v) Ordering Notifiers and the New York Consent Decree

87. We disagree with commenters' assertions that there is a systemic problem with ordering notifiers in Massachusetts similar to the problem that led to the Commission issuing a Consent Decree following section 271 approval in New York. After the Commission approved Bell Atlantic's -- now Verizon's -- entry into the interLATA service market in New York, it became clear that Bell Atlantic was having "problems associated with lost or mishandled orders for unbundled network elements electronically submitted by its local service competitors" over EDI.²⁶⁷ The Commission began to investigate Bell Atlantic's performance as a possible violation of section 271, and "[e]vidence submitted by Bell Atlantic in this investigation suggest[ed] that Bell Atlantic's performance in providing order acknowledgements, confirmation and rejection

²⁶¹ See Massachusetts Department Massachusetts I Comments at 147.

²⁶² See *id.*

²⁶³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4051, para. 184.

²⁶⁴ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 74. Although Verizon's implementation of a system of active jeopardy notices likely will provide additional benefit to carriers, it is not relevant to our determination here that its current system is nondiscriminatory. Therefore we reject WorldCom's complaint that this new jeopardy system is flawed. See WorldCom Massachusetts II Comments at 33.

²⁶⁵ WorldCom Massachusetts II Lichtenberg/Chapman Decl. at para. 20.

²⁶⁶ See Verizon Massachusetts II McLean/Wierzbicki Reply Decl. at para. 20.

²⁶⁷ *Bell Atlantic-New York Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York*, Order, 15 FCC Rcd 5413 Attach. (2000) ("Consent Decree")

notices, and order completion notices for UNE-P local service orders deteriorated following Bell Atlantic's entry into the New York long distance market."²⁶⁸ The investigation terminated in the *Consent Decree* between the Commission and Bell Atlantic. The *Consent Decree* required Bell Atlantic to begin reporting using several new measures: percent missing notifier trouble ticket PONs cleared within three business days; percent order confirmations/rejects sent within three business days; percent SOP to bill completion within three business days; percent confirmation timeliness -- total local service requests; and percent resubmission rejection.²⁶⁹ After the parties entered into the *Consent Decree*, Bell Atlantic's performance improved. Therefore, the Commission terminated the *Consent Decree*.²⁷⁰

88. We reject the assertions of WorldCom and others²⁷¹ that there is a systemic problem with notifiers in Massachusetts.²⁷² First, WorldCom points to KPMG's findings that Verizon failed to return two to three percent of completion notifiers.²⁷³ There is no evidence in the record, however, that KPMG's findings involving this limited number of notifiers would have any competitive impact. Second, WorldCom asserts that KPMG's test revealed problems with late billing completion notifiers, and some billing completion notifiers contained information not in accordance with Verizon's business rules.²⁷⁴ We are unable to compare KPMG's results against the commercial data that Verizon provided, however, because KPMG did not explain adequately how it measured the timeliness of completion notifiers.²⁷⁵ With regard to the contents of the billing completion notifiers, KPMG found there was sufficient information to permit it to engage

²⁶⁸ *Id.* at 5418, para. 7.

²⁶⁹ *Id.* at 5425-26.

²⁷⁰ See Letter from David H. Solomon, Chief, Enforcement Bureau, Federal Communications Commission, to Edward D. Young, III, Senior Vice President-Regulatory, Bell Atlantic (June 20, 2000). Specifically, Bell Atlantic's aggregate performance under the new measurements exceeded 95 percent for four consecutive weeks. See *id.*

²⁷¹ See ALTS Massachusetts I Comments at 22; ASCENT Massachusetts I Comments at 10-11; OnSite Massachusetts I Comments at 8-9; Winstar Massachusetts I Comments at 22-23; ASCENT Massachusetts II Comments at 20. These commenters did not support their claims with specific evidence. We do not address other commenters' claims about AT&T's experiences with Verizon's OSS as AT&T did not raise these claims itself in this proceeding. See, e.g., Winstar Massachusetts I Comments at 22.

²⁷² We generally do not examine commenters' complaints that rely on data or experiences from states other than Massachusetts. With specific regard to New York, the proper vehicle for complaints that Verizon's performance has deteriorated is section 271(d)(6), not opposition to this application.

²⁷³ See WorldCom Massachusetts I Comments at 42; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at para. 41; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. at para. 5.

²⁷⁴ See WorldCom Massachusetts I Comments at 42-43; WorldCom Massachusetts I Kinard Decl. at para. 12; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 40-44, 54; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. at para. 5.

²⁷⁵ See KPMG Final Report at 53-54.

in its billing activities.²⁷⁶ Finally, WorldCom asserts that carrier-to-carrier business rules underlying the commercial data Verizon provided are inadequate to reveal problems with late or missing notifiers. Specifically, WorldCom asserts that Verizon should have reported data under the measures developed in the *Consent Decree*, which capture how long it takes Verizon to send out billing completion notifiers after completing the relevant work.²⁷⁷ In our discussion of completion notifiers above, however, we explain that Verizon has begun reporting how long it takes an order to enter Verizon's billing systems after the relevant provisioning work is completed.²⁷⁸ Those data show that Verizon updates its billing systems on average in less than a day, and that Verizon takes more than four days to do so for less than five percent of orders.²⁷⁹ In combination with the data that show that Verizon sends out billing completion notifiers on time after updating its billing systems,²⁸⁰ these data show that Verizon updates its billing systems promptly after completing orders, and sends out billing completion notifiers promptly after updating its billing systems.

89. We also note that the Massachusetts Department has adopted new performance measures in the Massachusetts PAP to track this area: percent missing notifier trouble ticket PONs cleared within three business days, percent resubmission rejection, and percent SOP to bill completion within three business days.²⁸¹ These measures will inform carriers, the Massachusetts Department, and the Commission about Verizon's notifier performance going forward, and the special provision of the PAP will give Verizon a substantial disincentive for performance like that that occurred in New York.²⁸²

e. Provisioning

90. We conclude that Verizon provisions competing carriers' orders for resale and UNE-P services in substantially the same time and manner as it provisions orders for its own retail customers.²⁸³ Consistent with the Commission's approach in prior section 271 orders, we

²⁷⁶ See *id.* at 60.

²⁷⁷ See WorldCom Massachusetts I Comments at 43, 54; WorldCom Massachusetts I Kinard Decl. at para. 12; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 42-43; WorldCom Massachusetts I Reply at 36; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. paras. 9-10.

²⁷⁸ See *supra* Part IV.A.2.d(iv).

²⁷⁹ See *supra* n.260.

²⁸⁰ See *supra* n.259.

²⁸¹ See Verizon Jan. 30 *Ex Parte* Letter Attach. at 16-17 & App. H. These additions resolve concerns that the original PAP lacked such a provision. See ALTS Massachusetts I Comments at 57; Department of Justice Massachusetts I Evaluation at 23 n.77; WorldCom Massachusetts I Kinard Decl. at para. 12.

²⁸² As in the New York situation, we are prepared to take appropriate enforcement action under section 271(d)(6) if we find evidence of a systemic and widespread failure of Verizon to deliver ordering notifiers reliably and on time. See *infra* Part IX.

²⁸³ We discuss loop provisioning below. See *infra* Part IV.B.

examine the procedures Verizon follows when provisioning competitors' orders, its performance with respect to provisioning timeliness and its provisioning quality.²⁸⁴ Based on the results of KPMG's Massachusetts testing and Verizon's performance data, we find that Verizon demonstrates that it provides nondiscriminatory access to its provisioning processes. KPMG's test of Verizon's Massachusetts OSS demonstrates that Verizon makes available in Massachusetts the same set of standard intervals and SMARTS clock intervals²⁸⁵ for both competing carriers and its retail personnel.²⁸⁶ KPMG's test also demonstrates that, in its provisioning systems, methods and processes, Verizon provides parity between competitors' orders and its retail orders.²⁸⁷ As discussed below, Verizon's performance data for resale services and UNE-P demonstrate that Verizon provides parity in provisioning competitors' orders as compared to its retail orders.

(i) Resale Orders

91. We conclude that Verizon provisions orders for resale "POTS" and "specials" to competitors in substantially the same time that it provisions equivalent orders to itself.²⁸⁸ As in previous section 271 orders, we review Verizon's performance data to determine whether it provisions resale service at parity with its analogous retail services.²⁸⁹ For this application we

²⁸⁴ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4058, para. 196. For provisioning timeliness, we look to missed due dates and average installation intervals and for provisioning quality, we look to service problems experienced at the provisioning stage.

²⁸⁵ Verizon offers provisioning intervals either based on standard product-specific intervals or based on its SMARTS Clock system where no specific interval is set, which assigns available appointment dates for orders requiring dispatch. See *Verizon Massachusetts I Guerard/Canny Decl.* at para. 61. See also *Bell Atlantic New York Order*, 15 FCC Rcd at 4058, para. 197 and n.629 & 631.

²⁸⁶ See Massachusetts Department Massachusetts I Comments at 157-59 (citing KPMG Final Report at 58, 63, 105, 108 (Tests POP-1-6-4, POP-1-9-4, POP-2-6-4, POP-2-8-4)). Although KPMG reported findings of "Not Satisfied" for its test of Verizon's offered due dates over the LSOG-4 EDI interface, these findings were associated with Verizon's systems incorrectly giving competitive LECs different due dates for ISDN orders than were given to Verizon's retail customers. See KPMG Final Report at 63, 108 (Tests POP-1-9-4, Tests POP-2-8-4); see also KPMG Final Report at Exception Report #16. Subsequent to the conclusion of KPMG's testing, the Massachusetts Department oversaw Verizon's implementation of system fixes to correct these problems, and continues to monitor Verizon's ISDN performance to ensure that this issue has been resolved. See Massachusetts Department Massachusetts I Comments at 159; *Verizon Massachusetts I Application App. B*, Tab 545 at 3077-3079 (transcript of technical session held August 28, 2000).

²⁸⁷ See Massachusetts Department Massachusetts I Comments at 159-160 (citing KPMG Final Report at 195-204). KPMG concluded that Verizon satisfied every test element in its evaluation of parity in Verizon's provisioning processes. KPMG found that, in most cases, there is no distinction between the systems, methods, or execution of processes between wholesale and retail orders. Where parts of the retail and wholesale order provisioning processes are handled by different organizations within Verizon, the same processes are followed for both competitors' orders and Verizon's retail orders. See *id.*

²⁸⁸ Verizon's resale "specials" include orders for resold DS-0, DS-1, and DS-3 services. See *Verizon Massachusetts I Guerard/Canny Decl.* at para. 64. Resale "POTS" service is resold voice telephone service.

²⁸⁹ See *SWBT Texas Order*, 15 FCC Rcd at 18452, para. 194.

review performance data measuring how Verizon performs in meeting competitors' due dates for service installation as a reliable indicator of whether Verizon is providing nondiscriminatory service. The data indicate that Verizon satisfied parity standards for meeting competitors' resale POTS and specials due dates from September through December 2000 in Massachusetts, with a few limited exceptions.²⁹⁰ We find that the limited exceptions to Verizon's satisfactory performance are not competitively significant.²⁹¹

92. We also examine performance data measuring average completed intervals for competing carriers' resale orders, but find that these data are not an accurate indicator of Verizon's performance in provisioning these orders. As it did for its section 271 application in New York, Verizon offers un rebutted evidence that the disparity in the performance data between average completed intervals for competing carriers' resale orders and Verizon's retail orders in Massachusetts is substantially caused by several factors outside of Verizon's control.²⁹²

²⁹⁰ See Metric PR 4 (resale missed appointments). The performance data for the PR 4 series of metrics generally show no statistically significant disparities in Verizon's performance in meeting competitors' due dates for resale POTS provisioning.

²⁹¹ Two PR 4 submetrics, PR 4-02 (average delay days-total) and PR 4-05 (missed non-dispatch due dates), indicate some statistically significant disparities in Verizon's performance in meeting competitors' due dates for resale POTS provisioning in September and October 2000. In September 2000, competitors experienced an average of 9.05 provisioning delay days for resale POTS, as compared to 4.64 delay days for Verizon retail customers, and in October competitors experienced an average of 5.84 provisioning delay days for resale POTS, as compared to 3.64 delay days for Verizon retail customers (PR 4-02). Also, in September, Verizon missed 0.20 percent of competitors' non-dispatch due dates for resale POTS as compared to 0.11 percent of non-dispatch due dates for its retail customers, and in October Verizon missed 0.12 percent of competitors' non-dispatch due dates for resale POTS as compared to 0.04 percent of non-dispatch due dates for its retail customers, differences of 0.09 and 0.08 percent in September and October respectively (PR 4-05). We conclude that these disparities alone do not warrant a finding of noncompliance. Our finding is underscored by the lack of statistically significant disparities in performance under these metrics in November and December 2000. See *id.* Because of Verizon's satisfactory performance during this latest two month period, we conclude that Verizon's previous performance does not warrant a finding of noncompliance. Furthermore, although Verizon's performance under PR 4-02 (average delay days-total) for resale specials seems to show a disparity between retail and wholesale performance in December 2000 (29.67 competitor delay days versus 12.10 for Verizon), we conclude that these data alone fail to show a lack of parity in Verizon's treatment of competitors' resale specials orders, due to the fact that only three competing carrier observations were used to calculate these data. See Metric PR 4-02 (average delay days-total for resale specials, listing 3 competing carrier observations).

²⁹² In the *Bell Atlantic New York Order*, the Commission concluded that the disparity between average completed intervals for competing carriers and Bell Atlantic was substantially caused by several factors outside of Bell Atlantic's control, including competing carriers choosing longer installation dates without proper date-coding (the "W-coding" problem) and ordering products and services with long standard intervals (the "order mix" problem). See *Bell Atlantic New York Order*, 15 FCC Rcd at 4061-62, para. 203. Verizon offers evidence here demonstrating that, under the LSOG 2 interface, competing carriers can and do choose longer than standard installation dates for resale services without proper date-coding, and are ordering a relatively larger share of products and services with longer standard intervals than Verizon. See *Verizon Massachusetts I Guerard/Canny Decl.* at paras. 66-77. Based on this un rebutted evidence, we conclude that the disparity in Massachusetts between average completion intervals for competing carriers' resale orders and Verizon's retail orders is caused by factors outside of Verizon's control, and renders its performance data on resale average completed intervals unreliable. We note for future applications, however, that Verizon's LSOG 4 ordering interface corrects the problem of incorrect installation date coding (the (continued....))

Therefore, consistent with the Commission's findings in the *Bell Atlantic New York Order*, we accord little weight here to performance data evidencing the average intervals in which Verizon completes resale orders in Massachusetts.²⁹³ Instead, as discussed above, we rely on the performance data measuring Verizon's performance in meeting competitors' due dates for resale service installation.²⁹⁴

93. Verizon also demonstrates that the quality of resale installations provided to competitors' customers is generally the same as, or better than, similar work performed for its own retail customers. The data demonstrate that Verizon generally receives trouble reports from competitors' resale customers at the same rate as from its own retail customers, and in some cases demonstrate that Verizon receives trouble reports from competitors' customers at a lower rate.²⁹⁵ We find that the limited exceptions to Verizon's parity performance are not competitively significant.²⁹⁶

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"W-coding" problem). We therefore expect that, over time, competing carriers' selection of longer installation dates should have a diminished effect on the reliability of performance data for average completed intervals. *See* Verizon Massachusetts I Guerard/Canny Decl. at para. 76.

²⁹³ *See Bell Atlantic New York Order*, 15 FCC Rcd at 4061-66, paras. 202-10.

²⁹⁴ *See supra* at para. 91.

²⁹⁵ *See* Metric PR 6 (installation quality for resale services). From September 2000 through December 2000, Verizon's performance data under the PR 6 series of metrics generally show no statistically significant disparities in installation quality for competitors offering resale services as compared to Verizon's retail service.

²⁹⁶ Three PR 6 submetrics measuring installation quality for resale services show some statistically significant disparities between Verizon's provisioning performance for itself and for competitors in September and December 2000. In September 2000, the percentage of installation troubles reported within 30 days for 2-wire xDSL services (PR 6-01) was 6.90 percent for competing carriers versus 1.93 percent for VADI, a difference of 4.97 percent; these data, however, were based on 29 competing carrier orders. Due to the low volume of competitors' orders, a handful of trouble reports can cause seemingly large variations in the monthly trouble reports. *See, e.g.*, Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 13, 2001) (Verizon March 13 *Ex Parte* Letter). A 4 month average of Verizon's data for resold 2-wire xDSL under the PR 6-01 submetric from September through December 2000 reduces the disparity to 1.10 percent, which is not competitively significant. In December 2000, the percentage of installation troubles reported within 30 days for 2-wire digital services (not including xDSL services) where no trouble was found on the network (PR 6-03) was 4.74 percent for competing carriers versus 2.06 percent for VADI; the overall trouble report rate within 30 days (PR 6-01) for the same services in that month, however, was much lower for competing carriers (0.43) than for VADI (1.24). Finally, also in December 2000, the percentage of installation troubles reported within 30 days (PR 6-01) for resold special services was 0.71 percent for competing carriers versus 0.47 for Verizon; the difference between the two numbers, however, amounts to 0.24 percent, and no commenter has complained about Verizon's performance under this measure. We conclude that these disparities alone are not competitively significant, and do not warrant a finding of noncompliance in Verizon's provision of resale services to competitors. Verizon's performance under the PR 6 metrics for digital services, *i.e.*, resale xDSL, is also relevant to our review of its compliance with its resale obligations under checklist item 14. *See infra* Part V.E.

(ii) UNE-P Orders

94. Based on a review of performance data for UNE-P service, we conclude that Verizon provisions competing carrier orders for these network combinations in the same time as it provisions equivalent retail services and at the same level of quality (*i.e.*, with a comparably low level of troubles reported within the first ten days after installation). Verizon's performance data demonstrate that, from September through December 2000 in Massachusetts, Verizon provisioned UNE-P orders in substantially the same time that it provisioned similar orders for itself.²⁹⁷ Verizon's data also indicate that, over this time period, it provisioned UNE-P orders in substantially the same manner (*i.e.*, quality) as it provisioned comparable retail orders for itself in Massachusetts.²⁹⁸ While there are disparities with respect to some measurements of UNE-P provisioning performance, these disparities do not appear to be competitively significant.²⁹⁹ Taken as a whole, we find this performance to be acceptable.

f. Maintenance and Repair

95. *Functionality.* We conclude that Verizon offers maintenance and repair interfaces and systems that enable a requesting carrier to access all the same functions that are available to

²⁹⁷ See Metrics PR 2-01, PR 2-03, PR 2-04, and PR 2-05 (average interval completed for platform orders), and Metrics PR 4-04 and PR 4-05 (missed appointments for platform orders).

²⁹⁸ Verizon's performance data demonstrate that, from September 2000 through December 2000, competitors consistently reported a lower percentage of installation troubles within the first 30 days of installation of UNE-P than Verizon's retail POTS customers. See Metric PR 6-01 (for POTS – Provisioning – Other). In a letter, Verizon explains that this measure captures only UNE-P orders. See Verizon March 13 *Ex Parte* Letter.

²⁹⁹ Two provisioning submetrics show some statistically significant disparities in Verizon's provisioning performance with respect to UNE-P dispatch (Metric PR 4-04) and UNE-P non-dispatch (Metric PR 2-01) orders. For the reasons discussed here, we find these disparities do not warrant a finding of noncompliance. Verizon missed a higher percentage of competitors' due dates for UNE-P dispatch orders than for its own retail POTS service in September and October 2000 (19.05 versus 8.70 percent and 15.28 versus 7.83 percent, respectively) (Metric PR 4-04 for platform dispatch orders). These data, however, are based on low competitor order volumes (42 UNE-P dispatch orders in September and 72 in October). Due to the low volume of competitors' orders, a handful of missed due dates can cause seemingly large variations in the monthly trouble reports. See, *e.g.*, Verizon March 13 *Ex Parte* Letter. While these September and October 2000 data respectively show disparities of 10.35 and 7.45 percent between the rate Verizon misses POTS dispatch provisioning due dates for itself as compared to UNE-P competitors, a 4 month average of Verizon's data from September through December 2000 reduces that disparity to 4.35 percent. Furthermore, Verizon's November and December 2000 performance data do not show any statistically significant disparities under this submetric, and the data show a clear downward trend towards parity from September through December. See Metric PR 4-04 (missed due dates for platform dispatch order). With respect to non-dispatch UNE-P orders, although Verizon's October 2000 performance data show a disparity between the intervals in which competitors' UNE-P orders are completed as compared to Verizon's retail POTS orders (1.77 days vs. 1.26 days) (Metric PR 2-01), Verizon's other average completed interval measures for UNE-P show no statistically significant disparities in that month, nor do any of its average completed interval measures for UNE-P in November and December 2000. Furthermore, the performance data show that Verizon consistently misses a lower percentage of competitors' due dates for UNE-P non-dispatch orders than for its own retail POTS service (Metric PR 4-05). See Metrics PR 2-01, PR 2-03, PR 2-04, and PR 2-05 (average interval completed for platform orders), and PR 4-04 and PR 4-05 (missed appointments for platform orders).

Verizon's retail representatives. Verizon provides competing carriers with several options for requesting maintenance and reporting troubles. Competing carriers may electronically access Verizon's maintenance and repair functions for UNE-Loop, UNE-P, and resale through the GUI Repair Trouble Administration System (RETAS) interface or the application-to-application Electronic Bonding Interface (EBI).³⁰⁰ Both the RETAS and EBI interfaces flow directly into Verizon's back-end OSS and enable competing carriers to perform the same functions, in the same manner, as Verizon's retail operations.³⁰¹ Although the EBI interface does not support every maintenance and repair function supported by RETAS,³⁰² the Commission has not in the past required applicants to provide an integratable, application-to-application interface for maintenance and repair.³⁰³ Furthermore, Verizon's performance data indicate that its RETAS maintenance and repair interface is available in a manner that affords an efficient competitor a meaningful opportunity to compete.³⁰⁴ KPMG's functional testing of Verizon's RETAS maintenance and repair interface confirms the satisfactory performance demonstrated by Verizon's performance data.³⁰⁵ Based on the evidence before us, we conclude that Verizon satisfies its obligation of providing maintenance and repair functionality to competitors in substantially the same manner that it provides such functionality to itself. Finally, we note that no

³⁰⁰ See Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 82-84.

³⁰¹ See Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 83-91. The RETAS interface enables carriers to perform the same maintenance and repair functions as Verizon's retail operations, including: (1) testing resale POTS and UNE-P lines, as well as special service lines at DS-0 and lower; (2) creating trouble tickets; (3) obtaining trouble status; (4) modifying trouble tickets; (5) canceling trouble tickets; (6) requesting trouble report histories; and (7) trouble ticket service recovery. Although it supports all other maintenance and repair functions for UNE loops, the RETAS interface does not support testing of UNE loops, because these loops are not connected to a Verizon switch. Instead, competing carriers must test UNE loops through their own switches. See *id.* at para. 83.

³⁰² Verizon's EBI interface offers similar functionality to the RETAS interface, with the exceptions of: (1) automatic feature updates to switches through Verizon's StarMem system for features ordered by customers but not yet active; and (2) testing special service lines. Verizon indicates that it has implemented EBI in Massachusetts to support local services and local service circuits consistent with industry standards, where they exist. See *id.* at paras. 83-84 and Attach. O.

³⁰³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4069, para. 215.

³⁰⁴ See Metrics PO 2-01, PO 2-02, and PO 2-03 (OSS availability for Maint. Web GUI (RETAS)). Verizon's performance data show that its RETAS interface was generally available during more than 99.5 percent of scheduled hours of availability from September through December 2000; although non-prime time RETAS availability was 99.25 percent in December, we do not find this deviation from the benchmark to be competitively significant.

³⁰⁵ KPMG found that Verizon satisfied every test element of its functional evaluation of Verizon's maintenance and repair functions. See KPMG Final Report at 247-59. KPMG's functional test evaluated RETAS both for its conformance with Verizon documentation and for its comparative functionality to Verizon's retail trouble administration systems. See *id.* at 239. For its functional evaluation of the RETAS interface, KPMG evaluated the following functions: (1) mechanized loop test; (2) switched access remote test; (3) create trouble ticket; (4) modify trouble ticket; (5) obtain trouble ticket status; (6) close trouble ticket; (7) perform service recovery; (8) request trouble ticket history; and (9) request extended trouble ticket history. See KPMG Final Report at 246.

commenter has provided evidence to suggest that Verizon's systems and processes are inadequate in this area.

96. *Interface Response Times, Time to Restore and Quality of Work Performed.* We conclude that Verizon has demonstrated that it provides nondiscriminatory access to its maintenance and repair systems and processes. In previous section 271 applications, the Commission reviewed performance data reflecting the timeliness of the BOC's interfaces used for maintenance and repair functions, the timeliness of its repair work, and the quality of the repair work. Verizon's performance data indicate satisfactory performance in each of these areas. The performance data show that Verizon's maintenance and repair interfaces and systems process trouble inquiries from competing carriers in substantially the same, if not less, time as Verizon processes inquiries concerning its own retail customers.³⁰⁶ The data also show that Verizon repairs troubles for competing LECs' customers in substantially the same time as it repairs its own retail customers' troubles,³⁰⁷ and meets substantially the same percentage of repair commitments for troubles on competing carriers' lines as it does for comparable retail repair commitments.³⁰⁸ Finally, the data reveal that competing carriers' customers that receive service via resale or UNE-P generally reported the same rate of trouble reports,³⁰⁹ and the same rate of repeat trouble

³⁰⁶ See Metric MR 1 (maintenance OSS response times). The MR 1 series of metrics measures Verizon's response times in allowing competitors to create trouble tickets, obtain trouble ticket status reports, modify trouble tickets, cancel trouble tickets, obtain trouble report histories, and test POTS lines. From September through December 2000, Verizon performed these functions for competitors within the benchmark response times, and in most cases provided competitors with faster service than it provided to itself.

³⁰⁷ See Metric MR 4 (trouble durations for resale and UNE-P). The performance data for the MR 4 series of metrics show no statistically significant disparities in trouble durations experienced by competitors providing resold services or UNE-P as compared to Verizon's retail services, with the exception of one submetric for resale special lines in November 2000. To the contrary, these data for the most part indicate that Verizon is repairing troubles for competitors within shorter time frames than for its retail customers. In November 2000, however, 67.74 percent of resold special service lines experiencing troubles were out of service for longer than 4 hours, as compared to 55.66 percent of Verizon's retail special service lines (MR 4-06 for resale special service lines). These data, however, were based on a volume of 82 trouble reports by competitors. Due to the low volume of competitors' trouble reports, a handful of troubles can cause seemingly large variations in the monthly performance data. See, e.g., Verizon March 13 *Ex Parte* Letter. We note that, while the November 2000 resale specials data for this submetric shows a disparity of 12.08 percent, a 4 month average of Verizon's data from September through December 2000 reduces the disparity under this submetric to 8.22 percent (62.26 percent for Verizon versus 70.48 percent for competitors). We are encouraged by Verizon's improved performance under this measure in December 2000, which does not reflect any statistically significant disparity between Verizon's performance for itself as compared to competitors. We do not find that the disparity in November 2000 under this one submetric warrants a finding of checklist noncompliance.

³⁰⁸ See Metric MR 3 (missed repair appointments for resale and UNE-P). From September through December 2000, Verizon exhibited no statistically significant disparities in the percentage of maintenance and repair appointments it missed for competitors providing resale services or UNE-P as compared to its own retail services.

³⁰⁹ See Metric MR 2 (trouble report rate for resale and UNE-P). In some instances, the performance data for the MR 2 series of metrics for resale and UNE-P show statistically significant disparities in the rate at which network troubles are reported by competitors as compared to Verizon's retail customers. These disparities, however, are very small. In September 2000, the trouble report rate for central office network troubles (MR 2-03) for (continued...)

reports,³¹⁰ as Verizon's retail customers. KPMG's testing of Verizon's maintenance and repair performance for competitors confirms the satisfactory performance evidenced by Verizon's performance data.³¹¹ Finally, we note that no commenter has provided evidence to suggest that Verizon's systems and processes are inadequate in this area.

g. Billing

97. We agree with the Massachusetts Department that Verizon provides nondiscriminatory access to its billing functions.³¹² As the Commission has required in prior

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competitors providing UNE-P services was 0.24 percent, as compared to 0.12 percent for Verizon's retail customers, a difference of 0.12 percent. In October 2000, the trouble report rate for network troubles (MR 2-01) for competitors providing resold special services was 0.38 percent, as compared to 0.28 percent for Verizon's retail customers, a difference of 0.10 percent. In the same month, the trouble report rate for central office network troubles (MR 2-03) for competitors providing UNE-P services was 0.52 percent, as compared to 0.09 percent for Verizon's retail customers, a difference of 0.43 percent. In November 2000, the trouble report rate for central office network troubles (MR 2-03) for competitors providing UNE-P services was 0.15 percent, as compared to 0.08 percent for Verizon's retail customers, a difference of 0.07 percent. In December 2000, the network trouble report rate (MR 2-01) for competitors providing resale special services was 0.35 percent, as compared to 0.23 percent for Verizon's retail customers, a difference of 0.12 percent. In the same month, the trouble report rate for central office network troubles (MR 2-03) for competitors providing UNE-P services was 0.35 percent, as compared to 0.08 percent for Verizon's retail customers. Because these disparities are so small, the performance differential does not appear to be competitively significant and does not warrant a finding that Verizon fails to provide nondiscriminatory access to maintenance and repair OSS functions.

³¹⁰ See Metric MR 5 (repeat trouble report rate for resale and UNE-P). Verizon's performance data from September through December 2000 for the most part indicate no statistically significant disparities in the percentage of repeat trouble reports made by competitors providing resale services or UNE-P as compared to Verizon's retail customers. In many instances, the data show that competitors report a smaller percentage of repeat troubles for these services than Verizon's retail customers. In December 2000, however, the percentage of repeat troubles within 30 days (MR 5-01) reported by competitors providing resold special services was 28.28 percent, as compared to 19.72 percent for Verizon's retail customers. Due to the low volumes of competitor orders recorded under this metric, a handful of trouble reports can cause seemingly large variations in the monthly trouble reports. See Verizon March 13 *Ex Parte* Letter. We also note that, while the December 2000 resale specials data for MR 5-01 shows a disparity of 8.56 percent, the disparity shown by a 4 month average of Verizon's data from September through December 2000 is only 1.85 percent, which is not competitively significant. We do not find, based solely on one month's performance measuring a low volume of orders, that Verizon fails to provide nondiscriminatory access to maintenance and repair OSS functions. See Metric MR 5-01 (repeat trouble reports within 30 days for resale specials, listing 99 competitor observations in December).

³¹¹ KPMG found that Verizon satisfied every test element of its performance (volume) evaluation of Verizon's maintenance and repair functions. See KPMG Final Report at 278-84. KPMG's volume test evaluated the performance of the RETAS interface under normal load (projected September and December 2000 normal hour loads), peak hour load (150 percent of normal load) and stress load (240 percent of normal load) conditions, examining the performance of the RETAS interface for statistically significant degradation under these conditions. See KPMG Final Report at 270 (Table 2-4) and 278-84. For its volume testing of the RETAS interface, KPMG evaluated Verizon's ability to perform all nine functions tested in its functional evaluation. See KPMG Final Report at 261 and *supra* at n.305.

³¹² See Massachusetts Department Massachusetts I Comments at 195-96.

section 271 orders, a BOC must provide competing carriers with complete and accurate reports on the service usage of competing carriers' customers in substantially the same time and manner that it provides such information to itself, and wholesale bills in a manner that gives competing carriers a meaningful opportunity to compete.³¹³ Verizon provides competing carriers with billing information through Daily Usage Files (DUFs), which itemize the daily usage of competing carrier customers, and through carrier bills, which are monthly invoices incorporating charges for all products and services Verizon provides to a competing carrier.³¹⁴ These are the same mechanisms that Verizon uses to provide billing information to its retail operations.³¹⁵

98. The performance data demonstrate Verizon's ability to provide competing carriers with DUFs in substantially the same time and manner that Verizon provides such information to itself, and carrier bills in a manner that gives competing carriers a meaningful opportunity to compete. Verizon met or came close to meeting the Massachusetts Department's benchmarks for timeliness in sending out DUFs and carrier bills, and for bill accuracy.³¹⁶ The exception was not competitively significant. KPMG found Verizon's billing system to be accurate and reliable.³¹⁷ Although KPMG initially opened a few billing related exceptions on bills for UNE products, it closed those exceptions after Verizon implemented fixes, including changes to software and handbooks. We find that these fixes resolved KPMG's concerns and that Verizon's billing OSS provide competing carriers a meaningful opportunity to compete.

99. We reject WorldCom's and Winstar's complaints over observations and exceptions in the KPMG test because, as the Massachusetts Department confirmed, they were successfully closed after retesting or evaluation and confirmation of Verizon's explanations.³¹⁸ ASCENT

³¹³ See *SWBT Kansas/Oklahoma Order* at para. 163.

³¹⁴ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4075, para. 226.

³¹⁵ See Verizon Massachusetts I Application at 52; Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 92.

³¹⁶ The Massachusetts Department has established a benchmark of sending out 95 percent of DUFs in four business days, and 98 percent of carrier bills in ten business days. In September through December, Verizon consistently met the benchmark for timeliness in sending out DUFs, *see* BI 1-02 (percent DUF in 4 business days) and achieved billing accuracy close to or surpassing parity, *see* BI 3-01 (percent Billing Adjustments-Dollars Adjusted); BI 3-02 (Percent Billing Adjustments-Number of Adjustments). Verizon also met the benchmark for timeliness in sending out wholesale bills except in November, when Verizon sent out only 94 percent of carrier bills on time. By December that figure was back up to 100 percent. *See* BI 2-01 (Timeliness of Carrier Bill).

³¹⁷ *See* KPMG Final Report at 450-82 (Tests BLG-5 and -6). We also find that Verizon's billing OSS is sufficiently scalable to accommodate reasonably foreseeable commercial demand. We base this finding on Verizon's continued good performance in the face of higher order volumes, *see supra* n.253, and on KPMG's conclusion that Verizon's billing systems are "designed in a manner that would allow them to scale to meet increases in demand," KPMG Final Report at 494 (Test BLG-7-1-14).

³¹⁸ *See* Massachusetts Department Massachusetts I Reply at 43; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 172-73; Winstar Massachusetts I Comments at 26; Verizon Massachusetts I Application App. I, Tab 2 at Exceptions 6, 11. We do not generally address carriers' claims (continued....)

argues that its members frequently complain about inaccuracy of billing data from Verizon, overuse of paper bills, problems with electronic bill transmission, and problems getting Verizon to credit competing carrier payments and resolving billing disputes.³¹⁹ Absent support, however, these concerns do not overcome the showing that Verizon has made through its performance data and the KPMG analysis that its billing systems are accurate and prompt, providing competing carriers a meaningful opportunity to compete.

100. *Line Loss Reports.* We reject commenters' claims that Verizon fails to provide timely or accurate "line loss reports," which signal competing carriers that a customer has migrated to another LEC.³²⁰ Competing carriers require line loss notifications in order to know that a customer has in fact migrated and should no longer be billed for service.³²¹ Commenters have not provided evidence of a systemic problem: ASCENT does not provide details about its members' problems with line loss notifications, and WorldCom describes problems occurring outside of Massachusetts. Therefore, we reject their assertions.

101. *Suspension for Non Payment.* We decline to address WorldCom's complaint that Verizon is disconnecting (SNPing or snipping) WorldCom customers for nonpayment of charges that accrued while the customers were still Verizon customers.³²² WorldCom provides evidence of snipped customers in states other than Massachusetts. For the reasons explained above,³²³ we do not address complaints arising outside of Massachusetts.

h. Change Management and Technical Assistance

102. We conclude that Verizon has shown that it "has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and . . . is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them."³²⁴ Specifically, Verizon has shown that it has an adequate change management process in place in Massachusetts; has adhered to that change management process over time; and provides adequate technical assistance, training, documentation, and help desk

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arising out of their experiences with Verizon's OSS in other states, or claims about other carriers' experiences when those carriers did not raise those claims themselves in this proceeding.

³¹⁹ See ASCENT Massachusetts I Comments at 11; ASCENT Massachusetts II Comments at 21.

³²⁰ See *id.*; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 147-51; WorldCom Massachusetts II Comments at 31; WorldCom Massachusetts II Lichtenberg/Chapman Decl. at para. 16.

³²¹ See *SWBT Texas Order*, 15 FCC Rcd at 18452, para. 193 (noting importance of loss notification).

³²² See WorldCom Massachusetts I Comments at 41 n.67; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 152-53.

³²³ See *supra* Part IV.A.2.b.

³²⁴ See *Bell Atlantic New York Order*, 15 FCC Rcd at 3999, para. 102 (quoting *Ameritech Michigan Order*, 12 FCC Rcd at 20616, para. 136).

support to competing carriers.³²⁵ We concur with the Massachusetts Department that Verizon “has satisfied its requirements in the offering of nondiscriminatory access to its OSS functions with respect to Change Management and Technical Assistance.”³²⁶

(i) Change Management Process

103. In evaluating whether a BOC’s change management process affords an efficient competitor a meaningful opportunity to compete, we first assess whether the change management plan as stated is adequate. To make that assessment, we examine whether the evidence demonstrates: (1) that information relating to the change management process is clearly organized and readily accessible to competing carriers; (2) that competing carriers had substantial input in the design and continued operation of the change management process; (3) that the change management plan defines a procedure for the timely resolution of change management disputes; (4) the availability of an adequate testing environment; and (5) the efficacy of the documentation the BOC makes available for the purpose of building an electronic gateway. We also evaluate whether the BOC has demonstrated a pattern of compliance with its change management process.³²⁷

104. *Change Management Plan.* We concur with the Massachusetts Department that Verizon’s “defined Change Management process is sufficient to meet the needs of [competing carriers].”³²⁸ The plan is memorialized in Verizon’s Telecom Industry Services Change Management Process (Change Agreement).³²⁹ The Change Agreement is clearly organized, divided into sections that describe the processes for different types of changes, such as those initiated by Verizon, those initiated by competing carriers, those required by regulators, and emergency changes. The Change Agreement includes flow charts that describe the change process from conceptualization of a change to implementation, specifies time frames for Verizon’s provision of specifications to competing carriers for each type of change, and specifies time frames for competing carrier comment on those specifications. The Change Agreement is available to competing carriers at Verizon’s website.

105. We agree with the Massachusetts Department that Verizon “has adhered to its Change Management process over time.”³³⁰ Verizon has implemented performance metrics to

³²⁵ The “change management process” refers to the methods and procedures that the BOC employs to communicate with competing carriers regarding the performance of, and changes in, the BOC’s OSS. *See SWBT Texas Order*, 15 FCC Rcd at 18403-04, para. 107 (describing importance of change management).

³²⁶ Massachusetts Department Massachusetts I Comments at 78. We are encouraged by the Massachusetts Department’s decision to adopt a Change Control Assurance Plan, which will encourage strong performance going forward. *See infra* Part VIII.B.1.

³²⁷ *See SWBT Texas Order*, 15 FCC Rcd at 18404, para. 108.

³²⁸ Massachusetts Department Massachusetts I Comments at 78.

³²⁹ *See Verizon Massachusetts I McLean/Wierzbicki Decl. Attach. S.*

³³⁰ Massachusetts Department Massachusetts I Comments at 78.

measure whether it provides change management notices to competing carriers in compliance with the Change Agreement. The performance data show that Verizon consistently issues its notices according to the schedule set forth in the Change Agreement.³³¹ We therefore find that Verizon carries out the activities set forth in the Change Agreement in a reasonable and timely manner.

106. WorldCom asserts that Verizon has failed to comply with the Change Agreement with regard to the rollout of a new billing OSS, expressTRAK. Specifically, WorldCom asserts that Verizon has begun implementation of expressTRAK in some states but has not provided a detailed rollout schedule or specifications.³³² Verizon responds it is not rolling out expressTRAK in Massachusetts before the end of 2001, and that expressTRAK is a “back-office” OSS and is therefore not subject to the same business rule and specification requirements as interface software releases.³³³ Based on Verizon’s explanation of its timing, we conclude that Verizon is not rolling out expressTRAK in Massachusetts in violation of the Change Agreement. ALTS points to a KPMG observation regarding timing and completeness of change management notices.³³⁴ As discussed above, current data, however, show good performance with regard to the timing of notices, and we do not believe absent further evidence that KPMG’s finding with regard to completeness of change management notices has a competitive impact. In general, we note that the Massachusetts Department found that “each of the Observations raised by KPMG was satisfactorily resolved prior to the conclusion of the test.”³³⁵

107. *Competing Carrier Input and Participation.* Competing carriers had substantial input in the design of the Change Agreement³³⁶ and continue to participate meaningfully in its operation; we agree with the Massachusetts Department that “[competing carriers] have substantial input in [the change management] process.”³³⁷ Competing carriers participate in monthly change management meetings with Verizon, at which all parties discuss new change requests and vote on priorities. Competing carriers also initiate change proposals, comment on change proposals, participate in the development of the change schedule, and test new software before it is finalized.³³⁸ We note that Verizon employs “versioning,” meaning that it maintains a

³³¹ From September through December, Verizon sent all notices on time. *See* PO 4-01 (Percent Notices Sent On Time).

³³² *See* WorldCom Massachusetts I Comments at 46; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 102-15; WorldCom Massachusetts I Reply at 38; WorldCom Massachusetts II Comments at 30; WorldCom Massachusetts II Lichtenberg/Chapman Decl. at para. 15.

³³³ *See* Verizon Massachusetts I Reply at 48; Verizon Massachusetts I McLean/Wierzbicki Reply Decl. at para. 37; *cf.* Verizon Massachusetts I McLean/Wierzbicki Decl. Attach. S at 6-7 (defining types of “change[s] affecting interfaces between the [competing carrier’s] and Bell Atlantic’s operational support systems”).

³³⁴ *See* ALTS Massachusetts I Comments at 24.

³³⁵ Massachusetts Department Massachusetts I Reply at 22.

³³⁶ *See* Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 101.

³³⁷ Massachusetts Department Massachusetts I Comments at 78.

³³⁸ *See* Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 101-05.

prior version of a software release for some time after implementing a new version, so that competing carriers need not switch to the newer version immediately.³³⁹ The Commission has previously found versioning very useful to a BOC's demonstration that its change management process affords competing carriers a meaningful opportunity to compete, because it "ensur[es] that system changes and enhancements do not adversely affect a carrier's ability to access the BOC's OSS."³⁴⁰

108. *Separate Dispute Resolution Forum.* The record also reflects that Verizon provides a separate dispute resolution forum for change management issues: Competing carriers may escalate change management problems to Verizon's Change Management Director, and, if needed, to a Verizon Vice President. They may also bring disputes to the attention of the Massachusetts Department.³⁴¹ The Massachusetts Department noted that competing carriers invoked the change management dispute resolution forum successfully to defer the retirement of the Phase II GUI.³⁴²

109. *Testing Environment.* We find that Verizon's change management process provides for an adequate testing environment. In past section 271 orders, the Commission has found it useful to determine whether the record demonstrates that the BOC's testing environment is stable,³⁴³ adequately mirrors the production environment, affords competing carriers an opportunity to develop test decks of representative pre-ordering and ordering transactions, and offers the extended testing period that competing carriers need for EDI implementation and new release testing.³⁴⁴ We analyze these factors and determine that Verizon's test environment affords competing carriers adequate testing opportunities.

110. Verizon has established the "CLEC Test Environment," or "CTE," which is a testing environment that is physically separate from but matches the actual production environment. In the CTE, competing carriers can test their own software to be sure it is compatible with Verizon's OSS, and they can test new Verizon software releases.³⁴⁵ First, we find that Verizon's provision of the CTE satisfies its requirement to provide a stable testing environment. Verizon's "CLEC Handbook" specifies that "Bell Atlantic will not make any

³³⁹ See *id.* at para. 104.

³⁴⁰ *SWBT Texas Order*, 15 FCC Rcd at 18408, para. 115.

³⁴¹ See Massachusetts Department Massachusetts I Comments at 53.

³⁴² See *id.*

³⁴³ A stable testing environment is one in which the BOC makes no changes to the proposed release during the test period. See *SWBT Texas Order*, 15 FCC Rcd at 18419, para. 132 & n.350 (explaining importance of stable testing environment).

³⁴⁴ See *id.*, 15 FCC Rcd at 18420, para. 134.

³⁴⁵ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 108.

changes to the CLEC Test Environment while [competing carriers] are testing the new release.”³⁴⁶

KPMG found improvement in the stability of the CTE in the June 2000 release as compared with the February 2000 release.³⁴⁷ Moreover, the CLEC Handbook calls for Verizon to complete its internal testing before competing carrier testing begins.³⁴⁸ Second, we find that the test environment adequately mirrors production.³⁴⁹ Third, the Change Agreement time frames before and during testing are long enough to permit competing carriers to develop their own test decks; Verizon provides dedicated test coordinators to help competing carriers develop, execute, and evaluate their test decks;³⁵⁰ and Verizon makes its own test deck available on its website.³⁵¹ Finally, Verizon offers sufficiently long testing periods to permit adequate testing.³⁵²

111. We disagree with commenters’ assertions that Verizon fails to provide an adequately stable testing environment. WorldCom points to KPMG’s analysis and argues that Verizon’s poor documentation and coding errors require Verizon and competing carriers to make changes to their interfaces during testing, which changes make the testing environment unstable.³⁵³ We note that KPMG found improvement, however, in the stability of Verizon’s testing environment; moreover, the Massachusetts Department notes that KPMG was able to complete its interface testing during the established new release test period.³⁵⁴ We also note that KPMG closed its exception regarding problems with Verizon’s test deck after successful retesting.³⁵⁵ We believe in the absence of further evidence to the contrary that Verizon’s testing environment is adequately stable.

112. *Documentation.* The record supports our finding and the Massachusetts Department’s finding that Verizon makes available sufficiently detailed interface design specifications and documentation to enable competing carriers to modify or design their systems

³⁴⁶ See *id.* Attach. T at 3 (CLEC Handbook). The CLEC Handbook is available in its entirety on Verizon’s website at http://www.bell-atl.com/wholesale/html/customer_doc.htm.

³⁴⁷ See KPMG Final Report at 532 (Test RMI-2-9); see also Verizon Massachusetts I Application App. I Tab 2 at Exception 7 (KPMG report on disposition of exception regarding CTE stability).

³⁴⁸ See Verizon Massachusetts I McLean/Wierzbicki Decl. Attach. T at 1-2.

³⁴⁹ See Massachusetts Department Massachusetts I Comments at 54.

³⁵⁰ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 110.

³⁵¹ See *id.* at para. 109. KPMG noted that Verizon’s test deck for its February 2000 software release had quality problems, but that the June 2000 release showed improvement. See KPMG Final Report at 527 (Test RMI-2-2).

³⁵² See Massachusetts Department Massachusetts I Comments at 54.

³⁵³ See WorldCom Massachusetts I Comments at 45; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 85, 89; WorldCom Massachusetts I Kwapniewski/Lichtenberg Reply Decl. at para. 15. We do not address WorldCom’s complaints arising out of its testing experiences in states other than Massachusetts.

³⁵⁴ See Massachusetts Department Massachusetts I Reply at 28.

³⁵⁵ See Verizon Massachusetts I Application App. I, Tab 2 at Exception 7.

in a manner that enables them to communicate with Verizon's systems and any relevant interfaces.³⁵⁶ Verizon publishes an "Electronic Interface Guide" as part of its CLEC Handbook series, and it provides technical documentation to enable competing carriers to program their own systems to communicate with Verizon's OSS.³⁵⁷ The adequacy of Verizon's documentation is demonstrated most forcefully by the fact that several competing carriers have constructed and are using EDI interfaces in a commercial environment. The fact that several of these carriers are placing commercial volumes of orders via EDI with relatively few rejects significantly undermines the assertion that poor documentation prevents competing carriers from successfully implementing EDI.³⁵⁸ Furthermore, KPMG/Hewlett Packard also successfully used Verizon's documentation to build an EDI interface.³⁵⁹ KPMG's evaluation of documentation issued in anticipation of the June 2000 release revealed some errors and inconsistencies, which Verizon corrected over the summer.³⁶⁰ KPMG overall found that the documentation was satisfactory.³⁶¹ Based on all these facts, we determine that the EDI implementation and design specifications that Verizon makes available afford an efficient competitor a meaningful opportunity to compete.

113. In their comments, WorldCom and ALTS repeat KPMG's findings with regard to errors in Verizon's documentation. WorldCom notes that the errors were corrected, but points out that "the poor quality of Verizon's documentation when it is first released imposes significant costs on [competing carriers]."³⁶² WorldCom further states that when Verizon issues corrections to its documentation, those corrections often contain errors as well, and that Verizon takes too long to issue documentation.³⁶³ ASCENT also commented that its members report "persistent flaws" in documentation, and noted that KPMG failed to perform a root cause analysis.³⁶⁴ We

³⁵⁶ See *SWBT Texas Order*, 15 FCC Rcd at 18411, para. 119; Massachusetts Department Massachusetts I Comments at 78.

³⁵⁷ See Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 113-14. Examples of Verizon's technical documentation include a Pre-Order EDI Guide, a Pre-Order CORBA Guide, the Combined Pre-Order Documentation (EDI User Guide with Business Rules), the Order EDI Guide, and Specifications for Access Service Request. See *id.*

³⁵⁸ See Verizon Nov. 15 *Ex Parte* Letter Attach. (showing reject rates by individual carrier). As of September 2000, fifteen competing carriers were using EDI and seven more were in the process of being certified. See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 40.

³⁵⁹ See KPMG Final Report at 8.

³⁶⁰ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 119.

³⁶¹ See KPMG Final Report at 147-50 (Tests POP-4-17 to -4-24).

³⁶² WorldCom Massachusetts I Comments at 45; see WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 73-93; ALTS Massachusetts I Comments at 23; WorldCom Massachusetts I Reply at 37; WorldCom Massachusetts II Comments at 30; WorldCom Massachusetts II Lichtenberg/Chapman Decl. at para. 13. We do not address WorldCom's claims arising from data or experiences in states other than Massachusetts.

³⁶³ See WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 95-99.

³⁶⁴ ASCENT Massachusetts I Comments at 10; ASCENT Massachusetts II Comments at 20.

recognize that it would be better if Verizon's documentation were 100 percent correct from the beginning. However, we believe that Verizon's actions to correct documentation once errors are brought to its attention are further evidence that the change management process is effective and that competing carriers have meaningful participation in it.³⁶⁵ Furthermore, we do not believe that the relatively small number of errors³⁶⁶ in this large amount of documentation poses a barrier to competing carriers' ability to use Verizon's OSS.

(ii) Training, Technical Assistance, and Help Desk Support

114. We conclude that Verizon demonstrates that it provides the technical assistance and help desk support necessary to give competing carriers nondiscriminatory access to its OSS. Verizon publishes on its website many documents to assist competing carriers in using its OSS, including a three volume handbook series for resellers, a three volume handbook series for purchasers of UNEs, technical documentation to enable competing carriers to program their systems to communicate with Verizon's systems, business rules and EDI and CORBA specifications, and several other guides on a variety of topics. Verizon also provides training for resellers and for purchasers of UNEs in a "hands on" classroom. Verizon will provide training at competing carriers' premises on request as scheduling permits. Finally, Verizon's help desk, known now as the Wholesale Customer Care Center (WCCC), provides a single point of contact for all competing carrier reports of system issues.³⁶⁷ We find that, on the whole, Verizon provides technical assistance and help desk support adequate to permit competitors to use Verizon's OSS effectively. The Massachusetts Department likewise found that Verizon "provides [competing carriers] with a significant level of technical assistance and help desk support through its training programs, published documentation, and the WCCC."³⁶⁸

115. We reject commenters' assertions that Verizon's help desk is inadequate. ASCENT, Rhythms, and WorldCom argue that WCCC staff is not knowledgeable and does not follow through on problems promptly.³⁶⁹ In support of its argument, WorldCom points to KPMG's findings that the help desk sometimes takes several days to respond to even critical

³⁶⁵ See Verizon Massachusetts I McLean/Wierzbicki Decl. at para. 118.

³⁶⁶ Verizon states that the documentation for its June and October software releases had error rates of 0.4 percent and 0.13 percent, respectively. See Verizon Massachusetts II Reply at 48; Verizon Massachusetts II McLean/Wierzbicki Reply Decl. at para. 29.

³⁶⁷ See Verizon Massachusetts I McLean/Wierzbicki Decl. at paras. 113-15, 120-22, 125.

³⁶⁸ Massachusetts Department Massachusetts I Comments at 78.

³⁶⁹ See ASCENT Massachusetts I Comments at 8-9; Rhythms Massachusetts I Comments at 24-25; WorldCom Massachusetts I Comments at 43-44, 46; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 116-28; ASCENT Massachusetts II Comments at 19. We do not address WorldCom's complaints regarding help desk problems it has experienced in other states. See WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at paras. 116-26.

issues.³⁷⁰ And OnSite believes that frequent personnel changes at Verizon's help desk cause poorer service.³⁷¹ Except for pointing to KPMG's findings, the commenters do not provide any evidence of a problem with Verizon's help desk. KPMG's findings do not compel the conclusion that the commenters suggest. KPMG tested Verizon's former help desk, the Bell Atlantic System Support (BASS) Help Desk.³⁷² Verizon has since consolidated its help desk functions in the new WCCC;³⁷³ therefore, KPMG's findings carry less weight than they otherwise would. While KPMG did find that 38 percent of critical trouble tickets and 38 percent of all trouble tickets took longer than one day to close, it also found that some delays were caused by competing carriers' not closing trouble tickets after the issue is actually resolved or by problems traced back to competing carriers' OSS.³⁷⁴ Verizon notes that KPMG's test evaluated data through April 2000, and that after April 2000 its time to resolve trouble tickets improved: the number of tickets open for two days or more dropped from 38 to 18 percent.³⁷⁵ We conclude that the bulk of the evidence shows that Verizon's help desk provides competing carriers with the technical assistance necessary for a meaningful opportunity to compete.

116. We also reject commenters' suggestions for enhancements. WorldCom says that Verizon should report on the timeliness of resolving trouble tickets and otherwise track its own help desk performance.³⁷⁶ Covad and Rhythms argue that Verizon should expand the hours of the TISOC.³⁷⁷ While these suggestions for improvement may have merit, they do not affect our conclusion that Verizon currently provides technical assistance adequate to permit competing carriers a meaningful opportunity to compete.

3. UNE Combinations

117. In this section, we conclude that Verizon provides nondiscriminatory access to combinations of UNEs.³⁷⁸ The record indicates first that Verizon provides access to UNE

³⁷⁰ See KPMG Final Report at 609; WorldCom Massachusetts I Comments at 44; WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at para. 118; WorldCom Massachusetts I Reply at 37.

³⁷¹ See OnSite Massachusetts I Comments Kriss Stmt. at 7.

³⁷² See KPMG Final Report at 605.

³⁷³ See Verizon Massachusetts I McLean/Wierzbicki Reply Decl. at para. 41.

³⁷⁴ See KPMG Final Report at 609.

³⁷⁵ See Verizon Massachusetts I McLean/Wierzbicki Reply Decl. at para. 41.

³⁷⁶ See WorldCom Massachusetts I Kwapniewski/Lichtenberg Decl. at para. 55.

³⁷⁷ See Rhythms Massachusetts I Comments at 23; Covad Massachusetts I Comments at 48; Rhythms Massachusetts I Reply at 9.

³⁷⁸ In order to comply with the requirements of checklist item 2, a BOC must show that it is offering "[n]ondiscriminatory access to network elements in accordance with the requirements of section[] 251(c)(3)." 47 U.S.C. § 271(c)(2)(B)(ii). Section 251(c)(3) requires an incumbent LEC to "provide, to any requesting telecommunications carrier . . . nondiscriminatory access to network elements on an unbundled basis at any (continued....)

combinations, and second that it provides access to UNEs in a manner that allows requesting carriers to combine those elements.³⁷⁹ We base our conclusion on evidence of actual commercial usage, and also on Verizon's legal obligation to provide such access as established in its Massachusetts tariff and interconnection agreements.

118. First, the record indicates that Verizon has an obligation to provide access to UNE combinations in compliance with our UNE rules.³⁸⁰ Verizon has a legal obligation, under its tariff, interconnection agreements, and our rules to provide access to UNE combinations, including the loop-switch port platform combination (UNE-P) and the loop-transport facilities combination (Enhanced Extended Link, or EEL).³⁸¹ Verizon also makes available a "switch sub-platform," which is local switching combined with other shared elements such as shared transport, shared tandem switching, operator services, directory assistance, and SS7 signaling.³⁸² The evidence of

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technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory." *Id.* § 251(c)(3). Section 251(c)(3) of the Act also requires incumbent LECs to provide UNEs in a manner that allows requesting carriers to combine such elements in order to provide a telecommunications service.

³⁷⁹ In previous section 271 orders, the Commission has emphasized that the ability of requesting carriers to use UNEs, as well as combinations of UNEs, is integral to achieving Congress' objective of promoting competition in local telecommunications markets. *See SWBT Kansas/Oklahoma Order* at para. 171 n.487; *Bell Atlantic New York Order*, 15 FCC Rcd at 4077-78, para. 230.

³⁸⁰ *See Verizon Massachusetts I Application* at 33; *Verizon Massachusetts I Lacouture/Ruesterholz Decl.* at paras. 180-84; *Massachusetts Department Massachusetts I Comments* at 199.

³⁸¹ *See Verizon Massachusetts I Application* at 33; *Verizon Massachusetts I Lacouture/Ruesterholz Decl.* at paras. 181, 184; *Verizon Massachusetts II Application App. B*, Vol. 2, Tab 3C (D.T.E. Tariff No. 17, Part B, §§ 13.1.1.A, 15.1.1.A) (D.T.E. Tariff No. 17); *Verizon Massachusetts I Application App. J*, Vol. 3, Tab 12, Part II § 3.1 (*Agreement between New England Telephone and Telegraph Company d/b/a BA and AT&T Communications of New England, Inc.* (Apr. 13, 1998)); *Verizon Massachusetts I Application App. J*, vol. 7, Tab 22, Attach. III (*Interconnection Agreement by and between New England Telephone and Telegraph Company d/b/a Bell Atlantic - Massachusetts and MCI Metro Access Transmission Services, Inc.* (Sept. 29, 1998)). The Commission has an ongoing proceeding regarding the requirements for requesting carriers to use EELs to provide exchange access service. *See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3913-15, paras. 489, 492-96 (1999); *Supplemental Order*, 15 FCC Rcd 1760, 1761, para. 4 (1999); *Supplemental Order Clarification*, 15 FCC Rcd 9587, 9592, para. 8 (2000) (*Supplemental Order Clarification*). At present, the Commission conditions the use of EELs for exchange access to those carriers that provide a "significant amount" of local exchange service to a particular user. *Id.* Verizon is legally obligated to convert special access arrangements to EELs if a competing carrier certifies that it provides a "significant amount" of local exchange service to the particular end user in accordance with the *Supplemental Order Clarification*. *Verizon Massachusetts I Lacouture/Ruesterholz Decl.* at para. 184; D.T.E. Tariff No. 17, Part B, § 13.1.1.D; *see also SWBT Kansas/Oklahoma Order* at paras. 175-76. We find based on the evidence in the record that Verizon is in compliance with Commission orders on the subject.

³⁸² *See Verizon Massachusetts I Application* at 33; *Verizon Massachusetts I Lacouture/Ruesterholz Decl.* at para. 183; D.T.E. Tariff No. 17, Part B, § 14.1.1.B.; *Verizon Massachusetts I Application App. J*, Vol. 3, Tab 12, Part II § 3.1 (*Agreement between New England Telephone and Telegraph Company d/b/a BA and AT&T Communications of New England, Inc.* (Apr. 13, 1998)); *Verizon Massachusetts I Application App. J*, vol. 7, Tab 22, Attach. III (*Interconnection Agreement by and between New England Telephone and Telegraph Company d/b/a Bell Atlantic - Massachusetts and MCI Metro Access Transmission Services, Inc.* (Sept. 28, 1998)).

actual commercial usage demonstrates that Verizon is currently providing access at acceptable levels of quantity and quality. Verizon has provisioned 23,000 UNE-P orders as of January 2001.³⁸³ The Massachusetts Department determined that Verizon provides access to UNE combinations in compliance with our UNE rules and the Massachusetts Department's own requirements.³⁸⁴ No commenter has raised an issue with regard to Verizon's provision of combinations.

119. The record also indicates that Verizon provides access to UNEs in a manner that allows competing carriers to combine such elements for themselves.³⁸⁵ Verizon provides a variety of methods that allow competing carriers to combine UNEs. In addition to standard physical and virtual collocation arrangements, Verizon provides alternative collocation arrangements such as smaller physical collocation cages and cageless collocation arrangements, any of which may be used by competing carriers to combine UNEs.³⁸⁶ Where space for collocation is not available, Verizon also permits competing carriers to collocate their equipment in adjacent controlled environmental vaults.³⁸⁷ The record also indicates that Verizon satisfies its obligation to make noncollocation options available for the combination of unbundled network elements. Under the Commission's rules, Verizon must "provide . . . any technically feasible method of obtaining . . . access to unbundled network elements[, which is] not limited to . . . physical collocation and virtual collocation."³⁸⁸ In at least one interconnection agreement, Verizon offers "any technically feasible method to access unbundled [n]etwork [e]lements."³⁸⁹ Although Verizon has not provided evidence of a standardized offering for noncollocation methods of combining UNEs,³⁹⁰

³⁸³ See Verizon Massachusetts II Application Attach. A. This is nearly twice as many UNE-Ps as were provisioned at the time of Verizon's first Massachusetts section 271 application in September 2000. See Verizon Massachusetts I Application Attach. A, Tab 1 (approximately 12,000 UNE-Ps).

³⁸⁴ See Massachusetts Department Massachusetts I Comments at 199.

³⁸⁵ See Verizon Massachusetts I Application at 33-34; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 176-79.

³⁸⁶ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 31-62, 177-78; see also *infra* Part V.A.2 (discussing the terms and conditions for access to UNEs through physical and virtual collocation arrangements).

³⁸⁷ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 55; *infra* Part V.A.2.

³⁸⁸ 47 C.F.R. § 51.321(a), (b); *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20706, para. 170; see also *Local Competition First Report and Order*, 11 FCC Rcd at 15780-81, para. 553.

³⁸⁹ Verizon Massachusetts I Application App. J, vol. 7, Tab 22, Attach. III, at 2 (*Interconnection Agreement by and between New England Telephone and Telegraph Company d/b/a Bell Atlantic - Massachusetts and MCI Metro Access Transmission Services, Inc.*); see also Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 180 (Verizon provides "all technically feasible methods for [competing carriers] to combine individual network elements.").

³⁹⁰ While it provided assembly rooms and assembly points in New York for this purpose, it states that "[o]nly one [competing carrier] made any use of this offering in New York, and that use . . . has been discontinued." Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 179.

this commitment in an interconnection agreement satisfies the obligation to make available noncollocation options for competing carriers wanting to combine UNEs.

120. We reject as irrelevant Sprint's argument that volumes of UNE combinations in Massachusetts will not continue to increase.³⁹¹ Sprint points to a statement Verizon made that it might reconsider its provision of UNE combinations if its legal obligation to do so changes.³⁹² This argument does not suggest that Verizon is not in compliance with current UNE requirements, and therefore is not relevant to our inquiry.

B. Checklist Item 4 – Unbundled Local Loops

1. Background

121. Section 271(c)(2)(B)(iv) of the Act, item 4 of the competitive checklist, requires that a BOC provide “[l]ocal loop transmission from the central office to the customer’s premises, unbundled from local switching or other services.”³⁹³ A BOC has an obligation to provision different types of loops, including “two-wire and four-wire analog voice-grade loops, and two-wire and four-wire loops that are conditioned to transmit the digital signals needed to provide service such as ISDN, ADSL, HDSL, and DS1-level signals.”³⁹⁴

122. In evaluating Verizon’s overall performance in providing unbundled local loops in Massachusetts, we examine Verizon’s performance in the aggregate (*i.e.*, by all loop types) as well as its performance for specific loop types (*i.e.*, by voice grade, xDSL-capable, line-shared and DS-1 types).³⁹⁵ In doing so, we are looking for patterns of systemic performance disparities

³⁹¹ See Sprint Massachusetts I Comments at 26-28.

³⁹² Sprint points to a statement Verizon made in the course of an interconnection proceeding, to the effect that Verizon “will voluntarily provide [UNE-P] even where the loop and local switching elements comprising the UNE-P do not already exist in combined form for a specific customer in its network,” but “that it reserves the right to review this voluntary commitment based on judicial action by the Eighth Circuit Court of Appeals concerning [47 C.F.R. § 51.315(c)-(f)].” *Id.* at 27 (quoting *Consolidated Petitions for Arbitration of Interconnection Agreements*, DTE/DPU Dkt. Nos. 96-73/74, 96-75, 96-80/81, 96-83, 96-94, Phase 4-P Order at 6 (Jan. 10, 2000) <<http://www.state.ma.us/dpu/telecom/96-73/UneProvi.htm>>) (emphasis omitted).

³⁹³ 47 U.S.C. § 271(c)(2)(B)(iv). The Commission has defined the loop as a transmission facility between a distribution frame, or its equivalent, in an incumbent LEC central office, and the demarcation point at the customer premises. See *Local Competition First Report and Order*, 11 FCC Rcd at 15691, para. 380; *UNE Remand Order*, 15 FCC Rcd at 3772-73, paras. 166-167, n.301 (retaining definition of the local loop from the *Local Competition First Report and Order*, but replacing the phrase “network interconnection device” with “demarcation point,” and making explicit that dark fiber and loop conditioning are among the features, functions and capabilities of the loop).

³⁹⁴ *Local Competition First Report and Order*, 11 FCC Rcd at 15691, para. 380; *UNE Remand Order*, 15 FCC Rcd at 3772-73, paras. 166-67.

³⁹⁵ Competing carriers in Massachusetts rely principally on three types of unbundled stand-alone loops that support high-speed services: the xDSL loop, the Digital loop and the high-capacity or DS-1 loop. The Massachusetts Department has adopted the New York Commission’s separate loop-type performance measurement (continued....)

that have resulted in competitive harm or otherwise denied competing carriers a meaningful opportunity to compete.³⁹⁶ As the Commission has noted in previous section 271 orders, we examine the data for all the various loop performance measurements, as well as the factors surrounding the development of these measures. Verizon demonstrates that for xDSL loops, it is performing at acceptable levels for all of the measures the Commission has considered in previous section 271 orders. Isolated cases of performance disparity, especially when the margin of disparity or the number of instances measured is small, will generally not result in findings of checklist noncompliance. Finally, we evaluate the information Verizon provided describing its processes for installing and maintaining loops, the capabilities of its workforce, and employee training to show that it provisions and maintains unbundled loops.

123. We focus our analysis in this section on the issues in controversy under this checklist item, beginning with the pre-ordering, ordering, provisioning and maintenance and repair of stand-alone xDSL-capable loops. We also address voice-grade loops provisioned as new loops and hot cut loops as well as Verizon's subloop unbundling offering. Finally, we address line sharing and line splitting at the end of this discussion.

2. Discussion

124. Based on the record before us, we conclude that Verizon has adequately demonstrated that it provides unbundled local loops as required by section 271 and our rules. First, as described above, we find that Verizon provides access to loop make-up information in compliance with the *UNE Remand Order*. Second, we find that Verizon provides nondiscriminatory access to stand alone xDSL-capable loops and high-capacity loops. Third, we find that Verizon provides voice grade loops, both as new loops and through hot-cut conversions, in a nondiscriminatory manner. Finally, we find that Verizon has demonstrated that it has a line-sharing and line-splitting provisioning process that affords competitors nondiscriminatory access to these facilities. In so doing, we acknowledge that the Massachusetts Department also concludes that Verizon complies with this checklist item.³⁹⁷

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categories for xDSL loops (including, but not limited to, loops provisioned for ADSL, HDSL, and SDSL services); Digital loops, which are used by competing carriers to provide xDSL, IDSL or ISDN-like services and high-capacity or DS-1 loops. Commenters in this proceeding do not specifically criticize Verizon's performance with regard to Digital loops which are a decreasing proportion of all xDSL-capable loops requested by competing LECs. For example, in November of 2000, the measure of missed installation appointments, PR 4-04, captured 1292 xDSL loops compared to 276 Digital loops. The carrier-to-carrier reports also suggest that Verizon's performance for xDSL loops is similar to its performance for Digital loops. We analyze high-capacity or DS-1 loops separately at the end of this section.

³⁹⁶ See Updated Filing Requirements for Bell Operating Company Applications Under Section 271 of the Communications Act, *Public Notice*, DA 01-734, (rel. March 23, 2001) at 6 (encouraging BOC-applicants to explain why factual anomalies may have no meaningful adverse impact on a competing carrier's ability to obtain and serve customers).

³⁹⁷ See Massachusetts Department Massachusetts II Comments at 24.

125. When all types of loops are considered, Verizon shows that it performs at an acceptable level, generally meeting the parity standards in the four month period leading up to its application. Verizon demonstrates that it has put in place a process to deliver xDSL-capable loops in a timely manner and at acceptable levels of quality to allow competitors to meet the significant demand for high-speed services in Massachusetts. Furthermore, Verizon demonstrates that it has adapted its provisioning methods and procedures to accommodate competitive carrier requests for line-shared loops – loops that are recognized as an important element in providing high-speed service to residential subscribers. One commenter, Rhythms, initially opposed Verizon’s application on the basis of its xDSL loop performance, but now states that Verizon has taken steps to resolve its difficulties and has withdrawn its opposition.³⁹⁸ We find that Verizon’s overall performance meets the checklist requirements, even though some performance measurements indicate isolated and marginal problems. As explained below, we believe that the marginal disparities in some measurements are not competitively significant and do not show signs of systemic discrimination.

126. As described above, the New York Commission developed Verizon’s performance measurements, business rules and standards in a collaborative state proceeding with input from competing carriers.³⁹⁹ The Massachusetts Department has adopted these performance measures, business rules and standards. When possible, the New York Commission elected to compare Verizon’s service to competing carriers using unbundled loops directly to the level of service provided to Verizon’s retail operations.⁴⁰⁰ Where, however, the New York Commission determined that no comparable retail function exists, the level of service Verizon provided to competing carriers in Massachusetts is tested against benchmarks developed in New York.⁴⁰¹ Because the New York Commission adopted the performance measures through an open and collaborative process, and no commenter specifically criticizes the New York Commission’s process, we defer to the reasonable standards it set for these measurements as a basis for analyzing Verizon’s Massachusetts application.⁴⁰²

³⁹⁸ See Letter from Kimberly Scardino, Assistant General Counsel, Rhythms, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 14, 2001).

³⁹⁹ See Massachusetts Department Massachusetts I Comments at 7.

⁴⁰⁰ Where the New York Commission determined that a retail analogue is appropriate and the Massachusetts Department uses this analogue in its evaluation, we examine Verizon’s Massachusetts performance by determining whether it provides unbundled local loops to competing carriers in substantially the same time and manner as it does to its retail customers. See *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20655, para. 87; see also *Bell Atlantic New York Order*, 15 FCC Rcd at 4098, para. 279.

⁴⁰¹ In these instances, we examine Verizon’s service to competing carriers in terms of whether its performance affords competitors a meaningful opportunity to compete. See generally *Bell Atlantic New York Order*, 15 FCC Rcd at 4098, para. 279.

⁴⁰² See *Petition of New York Telephone Company for Approval of its Statement of Generally Available Terms and Conditions Pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry Pursuant to Section 271 of the Telecommunications Act of 1996*, Order Amending Performance (continued....)

a. Overview of Performance Data

127. In our analysis we rely primarily on Massachusetts performance data collected and submitted by Verizon under the state-adopted carrier-to-carrier standards. Where the data displays facial disparities in performance between the manner in which Verizon provisions loops for itself vis-à-vis its competitors, Verizon proposes explanations for statistical disparities and offers studies that recalculate measures according to various exclusions which are discussed below. In such instances, we look to the availability of data reconciled under the auspices of the Massachusetts Department and specific evidence presented by commenters to determine the appropriate weight to accord the challenged data. In evaluating the probity of Verizon's explanations and studies, we consider among other things, whether third parties had access to the underlying data and whether the challenged data were reconciled by the Massachusetts Department.

128. Although KPMG conducted a review of other Verizon performance metrics in Massachusetts, it did not separately evaluate the xDSL metrics because they were implemented by Verizon after the initial testing period.⁴⁰³ In its supplemental filing, however, Verizon describes its engagement of PwC to "validate its DSL and line sharing measures" and notes that PwC performed its work under the same standards as KPMG did during its third party OSS testing.⁴⁰⁴ PwC replicated a total of 159 measures and matched Verizon's calculations for 136 of 159 measures. Verizon asserts that for the remaining 23, the number of observations were identical and the reported performance was within one percent of the results replicated by PwC.⁴⁰⁵ In addition to replicating the carrier-to-carrier data, PwC examined the additional special studies Verizon performed with respect to certain DSL measures.⁴⁰⁶

129. Several commenters challenge the validity of Verizon's adjustment to official carrier-to-carrier performance data.⁴⁰⁷ Where commenters challenge the comprehensiveness of a

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Assurance Plan, Case 97-C-0271 (NY PSC Mar. 9, 2000); *see also Bell Atlantic New York Order*, 15 FCC Rcd at 3974-76, paras. 54-60.

⁴⁰³ *See* Department of Justice Massachusetts I Evaluation at 15; Rhythms Massachusetts I Comments at 29-30 (quoting KPMG Technical Session Tr. 5185-89). As part of its more general process evaluation, Covad suggests that KPMG observed the installation of 45 xDSL loops. *See* Covad Massachusetts I Comments at 35.

⁴⁰⁴ Verizon Massachusetts II Ruesterholz/Lacouture Decl. at para. 20; *see also supra* at para. 47.

⁴⁰⁵ *See* Verizon Massachusetts II Ruesterholz/Lacouture Decl. at para. 20.

⁴⁰⁶ PwC used the carrier-to-carrier guidelines and Verizon's raw data to replicate Verizon's DSL performance results in Massachusetts for October. PwC undertook a similar process with Verizon's October line sharing performance results for New York and Massachusetts based on the January 16th corrected guidelines filed with the New York Commission in compliance with its December 15 order approving the new carrier-to-carrier working group consensus.

⁴⁰⁷ *See* Rhythms Massachusetts II Comments at 7; Covad Massachusetts II Comments at 7-8; Rhythms Massachusetts I Comments at 29; Covad Massachusetts I Comments at 13; ALTS Massachusetts I Comments at 32; NAS Massachusetts I Comments at 5.

third-party evaluation of underlying data or a BOC-applicant's adjustment to carrier-to-carrier measures, carrier-specific carrier-to-carrier data become an important tool for the Commission to evaluate a BOC's compliance with section 271. Carrier-specific data underlying the carrier-to-carrier reports are important to this Commission's section 271 process because they allow competing carriers to compare carrier-to-carrier results or BOC-applicants' explanations to their own experiences and thus provide us with as complete a record as possible on which to make our decision.⁴⁰⁸ Likewise, where there is no comprehensive third-party evaluation of particular metrics, we strongly suggest that state commissions and applicants enable all parties to have access to the data used to calculate special studies of the BOC's performance. We find evidence that has been scrutinized in this manner is most persuasive. Accordingly, BOC-applicants may facilitate the development of a full record upon which they may rely to demonstrate compliance with section 271.⁴⁰⁹ In this case, Verizon has provided carrier-specific data underlying carrier-to-carrier measures and the underlying data used to generate reformulated measures of performance.⁴¹⁰ We discuss competitor challenges to Verizon's performance based on carrier-specific data where relevant below.

b. xDSL-Capable Loops

130. We find that Verizon demonstrates that it is providing xDSL-capable loops in accordance with the requirements of checklist item 4. In analyzing Verizon's showing, we rely primarily on the performance measures and performance data described in prior section 271 orders. We review Verizon's xDSL-capable loop order processing timeliness, the timeliness of Verizon's xDSL-capable loop installation and percentage of Verizon-caused missed installation appointments, the quality of the xDSL-capable loops Verizon installs, and the timeliness and quality of the maintenance and repair functions Verizon provides to competing carrier xDSL-capable loops. We note, however, that we do not rely on data reflecting Verizon's provision of xDSL loops to its separate affiliate to reach our conclusions because Verizon demonstrates

⁴⁰⁸ During the Massachusetts I application, Verizon began the process of submitting carrier-specific data to the Commission.

⁴⁰⁹ In addition, we note that carrier-specific data aided the Massachusetts Department in concluding that Verizon provides nondiscriminatory access to hot cut loops. *See* Massachusetts Department Massachusetts I Comments at 290. The availability of carrier-specific data was an important factor in the Commission's prior section 271 approvals. In New York, the Commission relied upon carrier-specific data to find that Bell Atlantic provided nondiscriminatory access to OSS. *See Bell Atlantic New York Order*, 15 FCC Rcd at paras. 166, 175, 181.

⁴¹⁰ Verizon states that it has provided carrier-specific reports beginning in May 2000 to competitors operating in Massachusetts that have requested them. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 17. Verizon has included carrier-specific reports for September, October and November 2000 in its application. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. App. C. Going forward Verizon has represented that it will provide carrier-specific reports to those competitors that have requested them by the 25th day of the following month. Further, Verizon is in the process of establishing a secure Website through which competitors will be able to obtain the aggregate performance results and their own individual reports and their Performance Plan reports, along with the underlying data in the first half of 2001. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 17.

checklist compliance with an evidentiary showing of performance to its wholesale xDSL customers.⁴¹¹

131. Verizon has a concrete and specific legal obligation to provide unbundled xDSL-capable loops to competing carriers.⁴¹² Verizon makes available unbundled xDSL-capable loops (including all technically feasible features, functions and capabilities) in Massachusetts through interconnection agreements and pursuant to tariffs approved by the Massachusetts Department.⁴¹³

(i) Order Processing Timeliness

132. To determine whether Verizon is processing orders in a timely fashion, we examine whether it provides competitors with nondiscriminatory access to loop information in a timely manner and whether it returns timely firm order confirmations (FOCs) to competitors.⁴¹⁴

133. *Timely Access to Loop Information.* As described above, we find that Verizon has demonstrated that its pre-ordering OSS provides competitors with access to the same underlying loop information available to Verizon's retail and back office personnel.⁴¹⁵ We also find that Verizon appears to be providing that information within the required time frames.

134. Verizon's performance data reflect that it provides responses to competing carrier requests for loop information in substantially the same time and manner as for itself.⁴¹⁶ The carrier-to-carrier reports contain four pre-ordering metrics that measure Verizon's performance in providing competitors with pre-order access to loop information.⁴¹⁷ Under two of these metrics, Verizon provides performance data for September through December 2000 showing that Verizon is providing timely responses to competitors' pre-order mechanized loop database queries

⁴¹¹ Verizon's separate affiliate has not been purchasing the same inputs to provide advanced services as unaffiliated competing carriers. Specifically, Verizon's separate affiliate purchases line sharing to provide ADSL service while competing carriers in Massachusetts continue to purchase stand alone, xDSL-capable loops and have only recently begun purchasing line sharing. As a result, Verizon's advanced services separate affiliate is not useful in making a presumption of nondiscriminatory performance.

⁴¹² See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 63, 114.

⁴¹³ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at Exh. B (citing D.T.E. Tariff No. 17, Part B, Section 5).

⁴¹⁴ See *SWBT Texas Order*, 15 FCC Rcd at 18499-18501, paras. 286-90.

⁴¹⁵ See *supra* Part V.A.2.c(ii).

⁴¹⁶ See PO-1-06 (Facility Availability, Loop Qualification, EDI and CORBA).

⁴¹⁷ The first two metrics are "PO-1-06 Facility Availability (Loop Qualification) – EDI" and "PO-1-06 Facility Availability (Loop Qualification) – CORBA," both of which measure the timeliness of Verizon's responses to mechanized loop database queries. The second two metrics are "PO-8-01 Average Response Time – Manual Loop Qualification" and "PO-8-02 Average Response Time – Engineering Record Request," which measure the timeliness of Verizon's responses to manual loop qualification and engineering record requests. See Verizon Massachusetts I Guerard/Canny Decl. Tab B at 9, 18.

submitted via Verizon's EDI and CORBA interfaces.⁴¹⁸ Verizon, however, has not reported carrier-to-carrier performance data measuring its average response times in conducting pre-order manual loop qualifications and engineering record requests.⁴¹⁹ Instead, Verizon provides data for manual loop qualifications conducted from September through November 2000 under Verizon's existing process through its ordering OSS, showing that between 97 percent and 99 percent of manual loop qualifications were completed within 48 hours.⁴²⁰ Although these data have not been submitted under the auspices of the Massachusetts carrier-to-carrier reports prepared in accordance with business rules developed collaboratively by Verizon and competitive carriers, we accept them here because they have not been challenged.⁴²¹ Finally, Verizon provides evidence that it is consistently meeting its target of returning loop make-up information to competitors within 24 hours under its interim LFACS process.⁴²² Verizon also states that competitors generally receive this information within 2 hours.⁴²³

135. *Timely Return of Firm Order Confirmations.* We conclude that Verizon's reported performance metrics indicate that it consistently provides timely confirmation notices to competing LECs in Massachusetts for xDSL unbundled loop orders.⁴²⁴ We encourage Verizon to

⁴¹⁸ See PO-1-06 for EDI. The performance data for these months show that Verizon consistently responds faster to queries for loop qualification information from the mechanized LiveWire database placed from competitors' application-to-application interfaces than to similar queries placed from VADI's retail pre-ordering interfaces. From October through December 2000, competitors received mechanized loop qualification responses on average within 3.11, 2.92, and 3.02 seconds respectively, as compared to 4.72, 17.26, 11.85 seconds for VADI's retail personnel.

⁴¹⁹ In its reply comments, Verizon explains that it has not reported data for the PO-8-01 and PO-8-02 metrics measuring the timeliness of its responses to pre-order manual loop qualification and engineering record requests, because there are currently no electronic pre-ordering OSS functions for manual loop qualification and engineering record requests. See Verizon Massachusetts I Guerard/Canny Reply Decl. at 13.

⁴²⁰ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. Tab J. As discussed below, Verizon's performance data also show that it returns to competitors ordering xDSL loops timely firm order confirmations and rejects, which under Verizon's current manual loop qualification process contain the results of manual loop qualifications. See *id.* at Tab K and Tab L (summarizing Verizon's performance data for September through November 2000 for DSL order confirmation and reject timeliness); see also *infra* at para. 135.

⁴²¹ We note that Verizon has been ordered to begin reporting on these two pre-ordering metrics, in accordance with the guidelines adopted in the carrier-to-carrier working group. As stated above, the availability of carrier-to-carrier reports permits competitors to fully analyze Verizon's performance and evaluate it against the performance data they have collected themselves.

⁴²² See Verizon Massachusetts II Reply, App. A, Tab 1, Attach. C (showing 100 percent of LFACS queries receiving responses within 24 hours for February 2001).

⁴²³ See Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed April 3, 2001).

⁴²⁴ As the Massachusetts Department concluded, "although [Verizon] includes xDSL orders with other loop orders in the denominator of the relevant metric, based upon our review of [Verizon's] performance data, it appears that [Verizon] returns [xDSL confirmation notices] within the stated interval almost all of the time." Massachusetts Department Massachusetts I Comments at 298. For example, from September through December (continued....)

work in the collaborative process to adopt disaggregated performance metrics for xDSL and digital loops, whether pre-qualified or manually qualified.⁴²⁵ As the Commission explained in the *Bell Atlantic New York Order*, the “need for unambiguous [xDSL] performance standards and measures has been reinforced by the disputes in [that] record regarding . . . what performance is being measured.”⁴²⁶

(ii) Provisioning Timeliness

136. We find that Verizon demonstrates that it provisions xDSL-capable loops for competing carriers in substantially the same time and manner that it installs xDSL-capable loops for its own retail operations. In analyzing Verizon’s provisioning performance for checklist compliance, we continue to rely primarily upon the performance measurements identified in the *Bell Atlantic New York Order* and *SWBT Texas Order*, i.e., missed installation appointments and average completion intervals.⁴²⁷

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2000, respectively, for “Loop/Pre-qualified Complex/LNP” orders, Verizon timely returned 99.68, 99.82, 99.48, and 99.79 percent of confirmation notices for flow-through orders within 2 hours; 97.35, 97.35, 97.27, and 97.88 percent of confirmation notices for orders of less than 10 lines within 24 hours; and 96.90, 99.73, 100.00, and 99.74 percent of confirmation notices for orders equal to or more than 10 lines within 72 hours. Verizon likewise exceeded the 95 percent benchmark for timely return of reject notices during this period. See OR-1-02, OR-1-04, OR-1-06, OR-2-02, OR-2-04, OR-2-06. “Pre-qualified Complex” orders encompass orders for pre-qualified xDSL-capable loops, and include specifically orders for pre-qualified 2-wire xDSL and 2-wire digital loops. See Verizon Massachusetts I Guerard/Canny Decl. Attach. B at 100. Verizon also appears to have exceeded the 95 percent benchmark for timely return of confirmation and reject notices with respect to manually qualified, 2-wire xDSL loop orders. For example, from September through December 2000, respectively, for “2 Wire xDSL Service” orders, Verizon timely returned 98.75, 98.67, 99.25, and 96.77 percent of confirmation notices, and 98.80, 98.92, 99.38, 97.75 percent of reject notices, for orders of less than 10 lines within 72 hours. See OR-1-04 and OR-2-04.

⁴²⁵ In Texas, for example, SBC disaggregated its order confirmation timeliness performance data into separate categories for stand-alone loops, loops ordered with a ported number, digital loops, and xDSL loops. See *id.* at paras. 172, 288. SBC’s disaggregated data arose from a Texas Commission proceeding and involved joint efforts by SBC, interested competitive LECs, and the Texas Commission. See *id.* at paras. 286-90. In Massachusetts, beginning with its August 2000 carrier-to-carrier metrics, Verizon has disaggregated manually-qualified, 2-wire xDSL loop ordering performance measures from manually qualified, 2-wire digital loop ordering performance measures. See Verizon Massachusetts I Guerard/Canny Reply Decl. Attach. D at 7, 22 (metrics OR-1-03-06 and OR-2-03-06). Furthermore, one of the “consensus items” from the New York carrier-to-carrier working group, whose results are likewise to be implemented in Massachusetts shortly, see, e.g., Verizon Guerard/Canny Decl. at para. 15, calls for Verizon to disaggregate further its 2-wire xDSL services ordering metrics into separate measures pertaining to 2-wire xDSL loops and DSL line sharing. See Verizon Guerard/Canny Decl. Attach. A at 2, 7-8 (discussing further disaggregation to line sharing order confirmation and reject timeliness metrics, specifically OR-1-03-06 and OR-2-03-06). Such disaggregation likewise should apply to performance data on reject notice timeliness, as captured in the OR-2 metrics.

⁴²⁶ *Bell Atlantic New York Order*, 15 FCC Rcd at 4123, para. 334.

⁴²⁷ The New York Commission and Massachusetts Department established Verizon’s provisioning of 2-Wire xDSL services as the appropriate retail analogue for competing carrier xDSL loops in the performance measurement for missed installation appointments. Verizon notes, however, that, for purposes of one xDSL measure, the Percent Completed in 6 Days measure, PR 3-10, the retail analogue has been changed to Verizon’s installation of POTS second lines. See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 94.

137. *Percent Missed Installation Appointments.* Recent performance data show that Verizon's missed appointment measure demonstrates parity performance for competitive LECs.⁴²⁸ Although past performance indicates some statistically significant disparities, the trend in Massachusetts has improved significantly and, in the months of September, October, November and December, Verizon's performance moved to within approximately two percentage points of Verizon's retail missed appointment rate.⁴²⁹ Thus, the record shows that whatever performance disparities may have existed in the past, they have been narrowed to a small margin.⁴³⁰

138. We find no basis in the record to support NAS' contention that Verizon grants preferential installation appointments to its retail affiliate.⁴³¹ Verizon states that it offers

⁴²⁸ This performance metric is disaggregated to divide Verizon's missed installation appointments between those requiring dispatch of a technician and those not requiring dispatch. A "dispatch" typically involves sending a Verizon technician "in" to a Verizon central office to provision a particular UNE or "out" into the field to work in the outside plant. To date, competing carriers generally request stand-alone xDSL-capable loops and thus request "dispatch" xDSL loops which require a Verizon technician to perform field work to provision an xDSL-capable loop. Verizon's retail xDSL provisioning is overwhelmingly "no-dispatch" because its ADSL services are provided through line sharing arrangements. Since filing its original application, Verizon has amended its carrier-to-carrier performance reports to include both dispatch and no-dispatch information in the missed appointments measure. During the initial phase of this proceeding, Verizon was unable to resolve the discrepancy between the average completion interval and percent missed appointments measures for competing carrier no dispatch orders. On December 3, 2000, Verizon offered an explanation for this discrepancy. Verizon "discovered that performance for all unbundled xDSL loops was aggregated in the reported results for PR 4-04, whether or not the orders required a dispatch." See Letter from Dee May, Executive Director Federal Regulatory, Verizon to Eric Einhorn, Policy and Program Planning Division, Common Carrier Bureau, Federal Communications Commission, CC Docket No. 00-176 (filed Dec. 3, 2000). Since then, Verizon has reported both dispatch and no-dispatch volumes in the percent missed appointment measure for the months of September, October, November and December. Accordingly, the Commission can now rely upon competing carrier carrier-to-carrier data when examining the percent missed appointments metrics to obtain a more accurate dispatch-to-dispatch comparison and therefore a more reliable picture of Verizon's performance.

⁴²⁹ The four month average (September – December) for competing carrier missed appointment rates, for dispatch services was 6.4 percent compared to 4.6 percent for Verizon. Indeed, in November, Verizon provided better service to competitors than its retail affiliate. In the months of October, November and December, the missed appointment rate for dispatch xDSL services for competitors was 3.67, 2.40 and 4.19 percent and the retail rate was 3.18, 4.21 and 2.13 percent, respectively. Verizon's performance in September showed some disparities, which Verizon attributes to the lingering effect of a strike it experienced in August. For September, Verizon missed 12.75 percent of its dispatch installation appointments for competitors compared to 7.13 percent for itself. See PR 4-04 (Provisioning , Two Wire xDSL Services, percent Missed Appointment, Verizon, Dispatch). Verizon responds that its September results were adversely affected by the work stoppage, because orders missed in August but completed in September were recorded as missed appointments in the September performance reports. Verizon performed a study which excludes orders not originally due during the strike, which shows that the adjusted missed appointment rate of 3.79 percent for September is comparable to its October and November results. See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 72 and Attach. V.

⁴³⁰ While the Department of Justice takes issue with isolated xDSL performance measures and the manner in which those measures report Verizon's wholesale performance, it does not specifically criticize the percent missed appointments measure for stand-alone xDSL loops. See generally Department of Justice Massachusetts I Evaluation at 8.

⁴³¹ See NAS Massachusetts II Comments at 5; but see Massachusetts Department Massachusetts I Reply at 86.

nondiscriminatory access to shorter appointment windows for competitive LECs and Verizon alike.⁴³² Given Verizon's representation that it offers identical installation appointment windows to customers of both competitors and its retail affiliate that have "extenuating circumstances," we emphasize that Verizon is required to apply this policy consistently.⁴³³

139. *Average Completion Interval.* We find that Verizon's average completion interval data for the period September through December show nondiscriminatory treatment. During this period, the average completion interval for orders requiring a dispatch, which captures the vast majority of competing carrier orders, indicates a trend of improving performance and shows that retail performance is, on average, within approximately one-half a day of Verizon's retail affiliate and approximately one and one-half days longer than the standard six-day interval established by the Massachusetts Department.⁴³⁴ The average completion interval for Verizon retail during the period September through December is also approximately one day longer than the standard interval.⁴³⁵ Verizon argues that these results show nondiscriminatory treatment and any average completion interval disparities that remain should be discounted because these results are skewed by competing carrier behavior. Specifically, Verizon asserts that orders which were not prequalified (which have a 9-day interval) and orders which request installation dates outside of the standard interval skew the carrier-to-carrier results.⁴³⁶

⁴³² Verizon states that if a retail customer has "extenuating circumstances and requests a shorter installation appointment window, Verizon will schedule either a morning or afternoon appointment window. Verizon will also schedule a morning or afternoon appointment for a competing LEC customer with extenuating circumstances." Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 38.

⁴³³ Failure to provide nondiscriminatory access to installation appointments at identical windows could subject Verizon to a targeted enforcement action or carrier-initiated complaint. *See infra* Part IX.

⁴³⁴ The 4 month (September – December) average for competing carrier dispatch orders was 7.3 days compared to 6.94 days for Verizon. In the months of September, October, November and December Verizon completed no-dispatch competing carrier orders in 9.7, 7.75, 7.3 and 6.7 days compared to 11.4, 7.63, 5.2 and 6.3 days for Verizon. *See* PR 2-02 (Provisioning, Two Wire xDSL Services, Average Interval Completed, Total Dispatch). While the September results for this measure appear to be affected by the strike, Verizon states that during the period September through November 2000, the average completion interval to provision DSL loops for competitors where a dispatch was required averaged 8.32 days, while Verizon's retail ADSL orders that likewise required a dispatch were provisioned within an average of 8.48 days. Verizon avers that consistent with the relevant business rules, this measure reports the time from Verizon's receipt of a valid service order to actual work completion, and uses the same measurement points for both retail and wholesale orders. *See* Verizon Massachusetts II Guerard/Canny Decl. Attach. B, at para. 42; Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 75.

⁴³⁵ *See* PR 2-02 (Provisioning, Two Wire xDSL Services, Average Interval Completed, Total Dispatch).

⁴³⁶ *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 75. In its original application, Verizon argued that its recalculated results - which exclude manually qualified loops - for average completion interval also show parity. *See* Verizon Massachusetts I Guerard/Canny Decl. at para. 79 and Attach. K. Approximately half of the orders, according to Verizon, were pre-qualified, while the remainder required manual loop qualification. The results of this study show that "[t]he average interval completed for pre-qualified xDSL loops was 6.46 days compared to 6.69 days for retail in June and 5.40 days compared to 5.93 days for retail in July." *See* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 101. Covad responded to Verizon's study questioning its methodology and results. *See* Letter from Jason Oxman, Senior Governmental Affairs Counsel to Magalie Roman (continued....)

140. Although we recognize that the average completion interval as reported by the carrier-to-carrier measure slightly exceeds the standard interval adopted by the Massachusetts Department, we note that Verizon's performance has improved over the period September through December while the number of competitor orders has remained consistent.⁴³⁷ This improving trend and the competitively insignificant disparity between competitor and Verizon completion intervals persuades us that Verizon's technicians have gained sufficient expertise and operational readiness to adjust to the growth of competition in Massachusetts.⁴³⁸ To evaluate Verizon's provisioning timeliness, we look to the totality of the evidence presented to us. It is based on this totality and specifically, the measures the Commission has relied upon in the past, that we conclude that Verizon's provisioning timeliness performance offers competitors a meaningful opportunity to compete.

141. Although Verizon and some commenters urge us to rely on other measures, we need not do so in this case because Verizon has demonstrated compliance with this aspect of our loops analysis on the basis of the measures the Commission has relied upon in previous section 271 orders. We decline to rely upon the percent on-time measure supplied by Verizon⁴³⁹ or percent completed within 6 days measures supplied by competitors,⁴⁴⁰ because we do not have

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Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 (filed November 7, 2000) (Covad Nov. 7 *Ex Parte* Letter).

⁴³⁷ Competitor order volumes captured in the average completion interval, PR 2-01/2-02 peaked in October 2000 with 934 orders and have remained well-above 600 orders per month for the last four months. See PR 2-01/2-02 (Provisioning, 2-Wire xDSL Services, Average Interval Completed, Total Dispatch, Total No-Dispatch). Rhythms argues that Verizon's contention that VADI also receives service outside the standard interval is no response to Verizon's late wholesale performance for unaffiliated competitive LECs. Rhythms states that "it makes no difference to Rhythms that it received "parity" with Verizon's retail service when "parity" means that Rhythms received its loops two days later than the standard interval, an interval Rhythms notes is already an unnecessarily long period of time. See Rhythms Massachusetts II Comments at 11-12 and Williams Supplemental Declaration at para. 21. CIX argues that the Massachusetts Department's six-day interval was defined through a "long and thorough regulatory process" and Verizon should be accountable for failing to meet that interval for competitive LEC orders. CIX Massachusetts II Comments at 22.

⁴³⁸ The Department of Justice recognizes that Verizon's on-time performance is "improving" but notes that it falls short of the 95 percent on-time benchmark. Department of Justice Massachusetts II Evaluation at 9.

⁴³⁹ Verizon supplements its affirmative showing by arguing that it provides xDSL loops when competing carriers request them and asks us to consider, in addition to the average completion interval, Verizon's performance under a different metric which measures percent "on-time" installation. See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 66. Verizon claims that when facility misses are included in the results, Verizon's performance, when adjusted to remove the impact of the strike, is approximately 85 percent on-time in October and in November it is approximately 90 percent on-time. Verizon's removal of strike-affected orders from these measures for September and October 2000 improves Verizon's reported performance somewhat (from 75.7 to 86.6 percent). See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 69 and Attach. S. Verizon's final data presentation of the revised on-time measure, which excludes orders for which Verizon cannot provide a loop and adjusts for strike-affected orders, shows on-time performance that exceeds the 95 percent standard in November 2000. See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 66 and Attach. R.

⁴⁴⁰ Competing carriers contest Verizon's claim that it provides xDSL-capable loops on time and point to yet another measure of on-time performance, the percentage of xDSL loops completed within the standard interval of 6 (continued....)

enough data or experience with them for determining a BOC's compliance with section 271.⁴⁴¹ Moreover, commenters have offered no persuasive reason to depart from Commission practice of placing primary reliance upon the percent missed appointment or the average completion interval measures. Accordingly, we view the on-time measures cited by Verizon and the percent completed within 6 days measure cited by competitors as additional diagnostic data to evaluate Verizon's contention that it provides xDSL-capable loops in a timely manner.⁴⁴² We find that these measures support rather than refute the measures the Commission relied upon in the past and confirm our view that the missed appointment and average completion interval measures provide an accurate description of Verizon's performance for competitors.

(iii) Provisioning Quality

142. We conclude that Verizon provides xDSL loops to competing carriers at a level of loop installation quality that meets the requirements of checklist item 4. In analyzing installation
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days. *See* PR 3-10 (Provisioning, 2-Wire xDSL Services, percent Completed in 6 Days). In September, October, November and December Verizon completed 62.1, 64.6, 63.4 and 72.9 percent of competing carrier xDSL loops within 6 days. In the same months, Verizon completed 65.5, 82.3, 87.8, and 87.2 percent of xDSL loops within 6 days for itself. *See* Rhythms Massachusetts I Comments at 28; Department of Justice Massachusetts II Evaluation at 9 n.2; CIX Massachusetts II Comments at 22. USIAPA argues that the real provisioning interval is, on average, 25 days between the first FOC and actual installation because some 24 percent of orders in Massachusetts receive sliding FOCs. *See* USISPA Massachusetts II Reply at 8. During Verizon's original proceeding, Verizon and competing carriers reached consensus to eliminate the retail analogue and instead set a 95 percent benchmark standard for the percent completed within 6 days measure. Consensus was also reached to exclude orders that were not pre-qualified, orders requesting intervals outside of the standard interval and orders missed for lack of facilities. *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply. Decl. at paras. 77-80. Verizon engaged a consultant, Lexecon, to recalculate the reported results for this measure consistent with the exclusions discussed above and to adjust this measure for orders affected by the strike. When Verizon's performance for this measure is calculated in accordance with the new business rules, Verizon argues it provides 84 percent of xDSL loops between September and November with six days. This study shows that during the September through November period, 95 percent of the competitor orders not completed within the standard six day installation interval are completed within 7 days. The Lexecon study shows that under the revised PR 3-10 measure, in September, 89.12 percent of competitive LEC orders were completed within 6 days; 80.00 percent were completed within 6 days in October and 82.24 percent were completed within 6 days in November. Reply Appendix, Tab 4, Joint Reply Declaration of Robert H. Gertner and Gustavo E. Bamberger. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 82. Competitors respond that even Verizon's recalculated results show that that a substantial number of orders are completed outside the standard interval. Rhythms Massachusetts II Comments at 11-12; CIX Massachusetts II Comments at 22.

⁴⁴¹ Furthermore, by some estimates, 83.77 percent of all DSL orders are excluded from the percent completed within 6 days measure. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 84. We note that the Commission has not previously relied upon either the on-time measure cited by Verizon nor the percent completed within 6 days metric cited by competing carriers. Data supporting the 6-day measure became available for the first time in July 2000 and data supporting the on-time measure became available in June. The Massachusetts Department did not initially evaluate the percent completed on time measure relied upon by Verizon and also did not evaluate the percent completed with 6 day measure cited by competing carriers.

⁴⁴² For example, when the percent completed within 6 days results are examined in conjunction with the average completion interval, it is not surprising that approximately 80 percent of orders are completed within six days because the average completion interval is slightly more than 6 days.

quality we continue to rely primarily upon the measure identified in the *Bell Atlantic New York Order* and *SWBT Texas Order* – percent installation troubles within 30 days.⁴⁴³ Assessing the quality of loop installation is important because advanced services customers that experience substantial troubles in the period following installation of an xDSL-capable loop are unlikely to remain with a competing carrier.⁴⁴⁴

143. As an initial matter, we reject Verizon’s request that we depart from relying upon certain metrics the Commission has relied upon in the past. We conclude that Verizon’s use of the total DSL trouble report rate as a substitute for the percent trouble within 30 days does not measure the quality of Verizon’s installation performance.⁴⁴⁵ In fact, it is not even classified in the carrier-to-carrier reports or the Commission’s past orders as a provisioning metric, but rather, as a measure of maintenance and repair activities. Verizon has not persuaded us that the metric for trouble reports within 30 days of installation is any less probative of installation quality in the factual context of this application than it was in the previous applications wherein the Commission relied on this metric. Specifically, we find that the percent troubles within 30 days measure is more probative of installation quality than the total trouble report rate which measures all xDSL-lines in service throughout Verizon’s network, not lines recently installed.⁴⁴⁶

144. During this proceeding, the New York Commission and the Massachusetts Department accepted a consensus revision to the trouble report within 30 days measure to control for certain carrier business practices.⁴⁴⁷ Under the new consensus measure, the metric will include only trouble reports that are submitted within 30 days of installation by competitors that participate in acceptance testing.⁴⁴⁸ The revised definition reflects the fact that properly

⁴⁴³ The Commission stated in the *SWBT Texas Order*, that we consider trouble reports within 30 days as “indicative of the quality of network components supplied by the incumbent LEC.” *SWBT Texas Order*, 15 FCC Rcd at 18504-05, para. 299.

⁴⁴⁴ *SWBT Texas Order*, 15 FCC Rcd at 18504-05, para. 299.

⁴⁴⁵ See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 86.

⁴⁴⁶ See Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 (filed Nov. 14, 2000); see also Letter from Edward D. Young, III, Verizon, to William E. Kennard, Chairman, Federal Communications Commission, CC Docket No. 00-176 (filed Dec. 1, 2000).

⁴⁴⁷ The New York Commission adjusted the retail analogue to compare Verizon’s performance for competitors with Verizon’s own retail POTS service rather than its DSL service because Verizon’s DSL service is almost always provided over a loop that is already working and delivering dial tone, whereas retail POTS will involve providing service over a loop that is not already working. Thus, because stand-alone loops better approximate the manner in which Verizon provisions stand alone xDSL-capable loops to competitors, it was selected as the appropriate retail analogue.

⁴⁴⁸ Acceptance testing is a joint project whereby after installation, Verizon contacts competitors so the loop can be tested for improper voltages, or other impediments to xDSL service, such as ringers and load coils. Under established acceptance testing procedures, Verizon “shorts” a loop enabling competitors to verify continuity length and to ensure that the loop meets a competitor’s requirements. Competitors then provide to Verizon a confirmation indicating a loop is in working order, or, in the alternative, reject the loop as non-working.

conducted acceptance testing could identify some installation quality problems that could be resolved at the time the competitive LEC and Verizon conduct the acceptance test. When Verizon presents data that control for the exclusions adopted by the consensus revision, the performance dissimilarities are reduced or eliminated entirely.⁴⁴⁹ Competitive LECs question whether Verizon may appropriately exclude some of these trouble reports and have used carrier-specific data supplied by Verizon to argue that Verizon does not provide loops at an acceptable level of quality.⁴⁵⁰

145. We agree with the Department of Justice that Verizon's adjustments to the data are justified if an inference could reliably be made when the type of trouble reported: (1) could not occur post-acceptance, but rather must have existed at acceptance; and (2) would consistently be

⁴⁴⁹ Verizon engaged Lexecon to recompute the I-code rate (trouble reports within 30 days) presented in the official carrier-to-carrier data, for September through November 2000 using the new consensus method. Lexecon found that the performance disparity between competitive LEC and retail I-code rate was eliminated in September and substantially reduced – by 51 percent in October (from 8.2 to 4.34 percentage points); and by 74 percent in November (from 4.96 to 1.29 percentage points). Verizon contends that the “weighted average I-code rate under the new consensus rules for September through November 2000 was 4.78 for [competing carriers] and 3.3 for Verizon's retail customers.” Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 94. Verizon goes on to adjust its performance results to include troubles that could have been discovered by a properly conducted acceptance test. Under this adjustment the competitive LEC I-code rate was 3.12 percent in September 2000; 6.08 percent for October 2000, and 4.19 percent for November 2000. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 95 Attach. Z. The weighted average for this period is 4.28 percent for competitive LECs and 3.30 percent for Verizon retail. *Id.* Verizon performs a third level of analysis: after quantifying the I-code rate under the revised measure recently approved by the New York Commission, and then excluding those I-codes that could have been discovered by a properly conducted acceptance test, Verizon shows that the gap between competitive LECs and retail I-code rate in September and November 2000 is eliminated and reduced to less than one percent in October 2000. The adjusted rate is 1.43 percent for September 2000, 4.04 percent for October 2000 and 1.94 percent for November 2000 compared to the weighted average during this period of 2.36 percent for competitive LECs and 3.30 percent for Verizon. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 96 and Attach. AA.

⁴⁵⁰ *See* Rhythms Massachusetts II Williams Decl. para. 26; Covad Clancy Decl. para. 10-23; *see also* USISPA Massachusetts II Reply at 8. The Department of Justice questions the validity of the performance data and contends that Verizon's exclusion methodology infers improper acceptance testing from the nature of the trouble reported. *See* Department of Justice Massachusetts II Evaluation at 10 n.39. The Massachusetts Department discounts this measure entirely and questions whether the measure accurately captures Verizon's ability to provision quality loops. Massachusetts Department Massachusetts II Evaluation at 30. We agree with the Department of Justice that the calculation of the revised measure appears to be flawed. While trouble reports from carriers that do not conduct acceptance tests are excluded from the numerator of this measure, orders from such carriers are not excluded from the denominator. The result is to inappropriately skew the trouble report rate. When these orders are excluded from the denominator, the reported trouble rate is higher for October and November 2000 under the revised measure than as reported under the original carrier-to-carrier measure. The Department of Justice has recalculated PR 6-01 to control for this anomaly. Pursuant to this recalculation, for the period September to November, competitive LECs experienced 6.99 percent troubles within 30 days. *See* Department of Justice Evaluation at 10-11, Exh. 1.

detected by the joint testing methods employed.⁴⁵¹ The issue of whether competing carriers can consistently detect loop quality problems is disputed by Covad, Rhythms and NAS.⁴⁵² Covad argues that carrier-specific data show that it experiences installation quality troubles which are over four times higher for its orders compared to Verizon retail.⁴⁵³ Verizon responds that when an adjustment is made for Covad's failure to properly conduct acceptance testing its I-code rate falls to below retail.⁴⁵⁴ Verizon forwards similar carrier-specific responses to Rhythms and NAS.⁴⁵⁵

146. We find that Verizon is making loops available at substantially the same level of quality as Verizon provides to itself. In reaching this conclusion we rely upon data that are adjusted to comply with the recently-adopted consensus revision to the troubles with 30 days

⁴⁵¹ See Department of Justice Massachusetts II Evaluation at 11 n.39. Verizon responds that "while it is possible for a DSL loop to break after the loop is installed, that is a rare occurrence." Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 100.

⁴⁵² See Covad Massachusetts II Comments at 11; NAS Massachusetts II Comments at 11; Rhythms Massachusetts II Comments at 18.

⁴⁵³ In its comments, Covad reviewed 8 trouble tickets in the month of November to refute Verizon's argument that Covad knowingly accepted non-working loops. Covad contends that these loops were accepted because: (1) the Verizon technician was not at the NID when the test was performed; (2) Verizon failed to provision the loop to the appropriate NID; or (3) the loops became non-working after Covad accepted it. See Covad Massachusetts II Reply at 9. On reply Covad surveyed its acceptance testing logs for all of the I-codes reported in November. This survey showed that of the 25 I-codes which Verizon excluded from its adjusted performance measure, none of the installation quality troubles could have been discovered at the time of acceptance and all of these installation quality troubles were properly addressed as maintenance and repair issues. Covad argues that in many cases its records show that loops were much shorter at the time of acceptance testing than when repaired by Verizon, demonstrating that Verizon did not test the full loop length during acceptance testing. See Covad Massachusetts II Reply at 10. Verizon responds to Covad's initial survey of I-codes by showing that in two cases, Covad's test equipment was not available to perform an acceptance test and in two other instances, Covad's acceptance test failed to identify the presence of a load coil and half ringer. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 91. In three other instances, Verizon states that Covad tested and accepted a loop that Verizon identified as defective; Covad's technician went to the wrong demarcation point and finally, Covad could not locate the acceptance testing data on the loop in question in its database. See *id.*

⁴⁵⁴ When Verizon controls for installation quality issues that could have been discovered during acceptance testing Covad's rate is at parity for the period September through November. *Id.* at para. 83.

⁴⁵⁵ Rhythms claims that it reviewed the list of I-codes excluded by Verizon for acceptance testing reasons and states that "its records did not match Verizon's." Rhythms Massachusetts II Comments at 18. Verizon states that Rhythms did not provide any information for a number of the Rhythms I-codes excluded by Verizon. Verizon shows that some of the I-codes contested by Rhythms were not excluded by Verizon, therefore no downward adjustment to the competitive LEC I-code rate was taken. Finally, of the remaining I-codes submitted by Rhythms, Verizon's records show that these loops had ringers on the lines and should have been discovered during acceptance testing; these records contain inconclusive information or contained no relevant data or finally, the I-code was not related to Rhythms' failure to properly perform acceptance testing. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 94. Verizon performed a similar analysis for NAS adjusting its I-code rate to below retail in the period September through November. See *id.* at paras. 84-85.

measure.⁴⁵⁶ During the period September through November 2000, competitive LECs experienced installation quality troubles at a rate of 7.0 percent compared to 2.3 percent for Verizon retail.⁴⁵⁷ Thus, the adjusted data narrow the facial disparity between Verizon's performance to its competitors compared to itself. Moreover, we also note that recent performance shows that Verizon has improved its ability to provide competitors with xDSL-capable loops at acceptable levels of quality.⁴⁵⁸ We find, therefore, that the adjusted data coupled with the improving trend in Verizon's performance are sufficient for us to conclude that Verizon is installing loops in a nondiscriminatory manner.

147. We are unable to quantify exactly the effect of Verizon and competitor adjustments to the data because of limited factual disputes.⁴⁵⁹ We note however, that the Massachusetts Department has conducted a comprehensive and detailed factual reconciliation of I-codes for the month of November 2000 with the participation of Covad and Verizon.⁴⁶⁰ This inquiry has yielded several process improvements that are designed to improve Verizon's installation quality results.⁴⁶¹ We welcome the Massachusetts Department's participation in

⁴⁵⁶ We also agree with the Department of Justice that Verizon's practice of excluding trouble reports from carriers that do not conduct acceptance testing from the numerator but not the denominator is inappropriate and will result in inappropriately low trouble report rates. *See* Department of Justice Evaluation at 10. In this circumstance, where the carriers have agreed to revise a measure going forward, we believe it is reasonable to include the results of the revised measure to adjust Verizon's performance as officially reported.

⁴⁵⁷ *See* Department of Justice Massachusetts II Evaluation at 10, Attach. 1.

⁴⁵⁸ The individual results for competitive LECs performing acceptance testing for September, October and November were 4.13 percent, 11.18 and 8.22 percent compared to 1.93 percent, 2.09 percent and 2.81 percent for Verizon retail over the same period. *See id.* The unrevised carrier-to-carrier data confirm this positive trend. Even as volumes have remained substantial, the percent trouble within 30 days measure as originally reported moved from a high in October 2000 of 11.1 percent to 7.8 percent in November and 5.8 percent in December, reducing the disparity to approximately 3 percent in the most recent month we consider. In September, competitive LEC trouble reports within 30 days were 5.4 percent. The comparable numbers for Verizon retail were 1.93, 2.09, 2.81 and 2.79 percent in September, October, November and December respectively. *See* PR 6-01 (Provisioning, 2-Wire xDSL Services, percent Installation Troubles Reported Within 30 Days). The four month (September – December) average for competitive LEC trouble reports within 30 days, according to the unrevised carrier-to-carrier reports filed with the application, was 7.3 percent compared to 2.4 percent for Verizon.

⁴⁵⁹ We note that Verizon's adjustment to the data lower the I-code rate to less than 7 percent and competitive LEC challenges to Verizon's adjustment raise the I-code rate; but in no case do competitor challenges to Verizon's adjustment raise the I-code rate above the 7 percent level presented by the revised carrier-to-carrier measure as calculated by the Department of Justice. *See* Letter from Paul Afonso, General Counsel, Massachusetts Department of Telecommunications and Energy to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 21, 2001) (*Massachusetts Department Reconciliation Letter*).

⁴⁶⁰ On March 15 2001, at the request of the Commission's staff, the Massachusetts Department, together with Covad and Verizon, undertook a review of the disputed Covad orders. After conducting its review, the Massachusetts Department submitted a list of process improvements developed by Verizon and Covad during this review.

⁴⁶¹ Under the auspices of the Massachusetts Department, Covad and Verizon have agreed to several modifications or additions to the existing acceptance testing process. Verizon has agreed to implement a process requirement (continued....)

addressing Verizon's acceptance testing process and are encouraged by the improvements to this process.⁴⁶² We encourage carriers to bring issues such as these to the attention of state commissions so that factual disputes can be resolved before a BOC applicant files a section 271 application with this Commission.

148. We find that recent carrier-to-carrier installation quality measures show that Verizon has improved significantly its ability to provide competitors with xDSL-capable loops at acceptable levels of quality.⁴⁶³ Moreover, we find that Verizon's remedial efforts to improve the stand-alone xDSL loop provisioning and acceptance testing process, in addition to those agreed to in the context of the Massachusetts Department's reconciliation proceeding, are likely to reduce competitive LEC installation quality impairments in the future. Starting in January 2001, Verizon will tag DSL loops at both the NID and the cross-connection box with special services markers to indicate to Verizon technicians that the loop is in use for data services and should not be used to serve another customer.⁴⁶⁴ Verizon is also engaged in on-site visits to competitive LEC testing centers to discover ways to improve the acceptance testing process.⁴⁶⁵ Verizon has committed to providing competitive LECs with detailed information on their I-codes to diagnose acceptance testing issues and reconcile data.⁴⁶⁶ Verizon has also agreed to a trial of "sync" testing to enable Verizon technicians, at the time of testing, to determine whether the competitive LEC

(Continued from previous page) _____

that its technicians will "cut down" xDSL loops at the NID before the final cooperative test is performed. Additionally, Covad has agreed to insert into its acceptance testing script a question to determine whether the Verizon technician is testing through the network interface device. Second, to reduce technician confusion about where in Verizon's outside plant the cooperative test was performed, the carriers have agreed to enhance the demarcation point information procedures by establishing a three-fold process whereby the Covad technician can: (1) verify before dispatch, that the loop was located and tagged by the Verizon technician during cooperative testing; (2) access Verizon's demarcation information electronically before dispatching to the field; and (3) call Verizon from the field if the technician cannot locate the demarcation point. Third, Verizon has committed to make it clear to its technicians that they should remove all half ringers on stand-alone xDSL loops. Fourth, Covad and Verizon have agreed to implement a process for obtaining a final acceptance test when an earlier acceptance test has failed and to educate their technicians about interim loop testing versus final acceptance testing. *See* Massachusetts Department Reconciliation Letter at 8.

⁴⁶² We note that the Department of Justice did not have the benefit of the Massachusetts Department's reconciliation of Verizon's I-codes. *See* Department of Justice Massachusetts II Evaluation at 15 n.61 (noting that the Department of Justice's evaluation is "necessarily based solely on the evidence in Verizon's application" and stating that "[r]eply comments and *ex parte* submissions undoubtedly will provide additional evidence concerning the questions that have been raised about Verizon's pre-application DSL performance.").

⁴⁶³ We therefore rely upon the Massachusetts Department's conclusion that "the information contained in VZ-MA's supplemental application only affirms our earlier conclusion that VZ-MA provides [competing carriers] an installation quality sufficient to afford them a meaningful opportunity to compete." Massachusetts Department Massachusetts II Comments at 29-30; *see also* *SWBT Kansas/Oklahoma Order* at para. 191 (finding that SWBT generally met 6 percent installation quality benchmark and noting improved performance trend).

⁴⁶⁴ *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl at para. 110.

⁴⁶⁵ *See id.* at para. 110.

⁴⁶⁶ *See id.* at para. 109.

can synchronize its DSLAM with customer premises modems.⁴⁶⁷ Finally, Verizon is working with a competitive LEC to make access to its testing equipment available to Verizon through a voice response unit.⁴⁶⁸ We emphasize that Verizon's installation quality performance is minimally acceptable -- even under our flexible approach of reviewing Verizon's performance in light of the totality of the circumstances.⁴⁶⁹

(iv) Maintenance and Repair

149. We agree with the Massachusetts Department that Verizon demonstrates that it provides maintenance and repair functions for competing carrier xDSL-capable loops in a manner sufficient to meet the requirements of checklist item 4.⁴⁷⁰ In analyzing Verizon's maintenance and repair functions we continue to rely primarily upon the mean time to repair and repeat trouble rate measures identified in the *Bell Atlantic New York* and *SWBT Texas Orders*.

150. *Mean Time to Repair.* Like the Massachusetts Department, we find that Verizon offers nondiscriminatory access to maintenance and repair functions. During the period from September through December, the mean time to repair competing carrier troubles on xDSL loops was 29.4 hours while the comparable number for Verizon was 21.59 hours, an approximately 8 hour difference. Although this disparity is statistically significant, we note that, in December, Verizon repaired competitive LEC lines in 19.1 hours compared to 17.8 hours for its retail affiliate, bringing Verizon into near facial parity with its retail operation.⁴⁷¹ Accordingly, the most recent month we consider indicates that Verizon has virtually eliminated this performance

⁴⁶⁷ See *id.* at para. 118.

⁴⁶⁸ See *id.* at para. 109.

⁴⁶⁹ Any future evidence of significant and sustained deterioration may result in a targeted enforcement action or carrier-initiated complaint under the Act. See also *infra* Part IX.

⁴⁷⁰ See Massachusetts Department Massachusetts II Comments at 31.

⁴⁷¹ Verizon's missed repair appointment performance is likewise at parity. During September through November 2000, Verizon met approximately 85 percent of repair appointments for competitive LECs compared to approximately 86 percent for retail. MR 3-01 (Maintenance and Repair, 2-wire xDSL Services, percent Missed Repair Appointment – Loop); see also Verizon Massachusetts II Lacouture/Ruesterholz Decl. Attach. EE. Verizon concludes that during September through November 2000, nearly 58 percent of troubles reported within 30 days of the installation of a DSL loop were closed with no trouble found. See *id.* at para. 105 and Attach. BB. This number is consistent with Verizon's analysis for the period May through July. See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 78, 104 & Attach. I (discussing the effect of failure to isolate troubles on UNE POTS repair metrics).

disparity.⁴⁷² We do not find, therefore, any systematic discrimination in Verizon's maintenance and repair functions offered to competitors.⁴⁷³

151. Verizon contends that the data reflecting the measurement of mean time to repair for xDSL loops provide a misleading indication of its performance and thus the Commission should look behind the measures for additional evidence of nondiscrimination. Verizon claims that it is much more likely to be unable to access competing carriers customers' premises to repair xDSL loops than access to the premises of its own retail customers⁴⁷⁴ and that competing carriers are less willing to schedule weekend appointments than are Verizon's retail customers.⁴⁷⁵ Both of these factors, Verizon claims, lengthens the time needed to repair competing carrier xDSL loops. Covad and Rhythms specifically deny that they avoid weekend repair appointments and otherwise criticize Verizon's maintenance and repair functions.⁴⁷⁶

⁴⁷² Indeed, we take additional comfort in Verizon's January performance which indicates that this trend has continued. In fact, Verizon performs better for competitive LECs than for itself in January. The January mean time to repair competitive LEC xDSL loops was 20.82 hrs compared to 23.80 hrs. for Verizon. *See* MR 4-02 (Maintenance, 2-Wire xDSL Services, Mean Time to Repair – Loop Trouble).

⁴⁷³ Should Verizon's future performance reverse this positive trend, Verizon risks a targeted enforcement action or carrier-initiated complaint under the Act. *See infra* Part IX.

⁴⁷⁴ Verizon Massachusetts II Application at 25; Verizon Massachusetts II Lacouture/Ruesterholz Decl at para. 106. During April, May, June and July 2000, Verizon claims that competing carriers provided only "limited access" to end users for 58.9 percent of competing carrier Complex loop repair requests, compared to 3.4 percent on Verizon's Complex loop retail repair requests. *Id.* at para. 106 & Attach. N.

⁴⁷⁵ Verizon contends that a relatively small disparity in the mean time to repair measure exists during September, October and November and that there is some variation among competitive LECs regarding the rate at which they accept weekend repair appointments. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 119 Attach. GG. Verizon performed an analysis of the weekend repair appointment exclusion and concluded that the rejection of weekend repair appointments added approximately 4.35 hours to the average repair interval for competitive LEC loops, reducing the 9 hour difference to approximately 4-5 hours of disparity, an amount Verizon contends, that is not competitively significant; *See also* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para 119 Attach. GG. *See also* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at 73-74 & Attach. G (discussing the effect of not accepting weekend repair appointments on the UNE POTS repair metrics.)

⁴⁷⁶ *See* Rhythms Massachusetts I Comments at 31-32; *See* Letter from Dhruv Khana, Executive Vice President and General Counsel, Covad to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176, at 8 (filed Dec. 5, 2000); *see also* Covad Massachusetts I Comments at 20-22 (stating that Verizon adds to the "no access" problem by assigning "all day" appointment windows); Network Access Solutions Massachusetts I Comments at 3-4 (same). Rhythms Massachusetts I Comments at 32. Covad specifically notes that an apparent increase in competing carrier "no access" situations is explained by the fact that Verizon's schedules retail repair appointments in smaller windows than for competing carriers. The Massachusetts Department was unable to comment on Covad's alleged unsuccessful attempt to shorten repair windows offered by Verizon to competing carriers. *See* Massachusetts Department Massachusetts I Reply at 86. On reply, Verizon states that it will grant morning or afternoon appointments for retail customers if they have extenuating circumstances and it will do the same for competing carriers. Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at 33 (emphasis added).

152. We exercise our discretion to afford Verizon's adjusted mean time to repair data little weight.⁴⁷⁷ Because the official carrier-to-carrier data provide sufficient evidence for the Commission to conclude that Verizon provides nondiscriminatory access to maintenance and repair functions, we need not resolve the factual dispute presented by commenters regarding refused weekend repair appointments. We recognize and encourage BOCs to conduct root cause analysis of their performance and will appropriately credit explanations of disparities in the performance measures. We believe, however, that such explanations are best used to improve processes and carrier-to-carrier reporting and that they are most useful when surfaced in state proceedings. We note that the development of performance measures is an iterative process and we encourage competitive LECs and Verizon to continue to specifically improve the mean time to repair measure to provide a more accurate indicator of performance.⁴⁷⁸

153. *Repeat Trouble Rate.* We conclude that Verizon provides competitors with maintenance and repair services at an acceptable level of quality. Verizon's repeat trouble report data show that competing carriers infrequently experience problems after a repair visit for a trouble on DSL loops. This measure shows that competing carriers experience fewer repeat troubles than Verizon's retail affiliate.⁴⁷⁹ For the period September through December, competing carriers experienced 16.3 percent repeat trouble report rates compared to 21.5 percent for Verizon.⁴⁸⁰ Thus, during the four recent months we consider, Verizon provides better service to competitors in this area than it does for its retail affiliate.⁴⁸¹

⁴⁷⁷ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para 119 Attach. GG.

⁴⁷⁸ The Department of Justice notes that the mean time to repair measure is likely to be disputed in the future and, if the measure is left unrevised, it may create an analysis that is biased toward finding parity. "Excluding observations involving competitive LEC refusals of weekend appointments makes Verizon's performance for competitive LECs look stronger, moving the apparent balance toward parity. Excluding observations involving refused weekday appointments – an adjustment Verizon did not make – could make Verizon's performance as to its retail unit or separate affiliate look better, moving the apparent balance away from parity." Department of Justice Massachusetts II Evaluation at 12.

⁴⁷⁹ The Percent Repeat Trouble Reports metric, MR 5-01 shows that the 4-month (September – December) average for competing carriers is 16.3 percent and 21.5 percent for Verizon. For the months of September, October, November and December, competing carrier repeat trouble rates were 19.3, 15.4, 16.1 and 13.4 percent. For the same months, Verizon repeat trouble rate was 22.7, 20.3, 22.6 and 16.5 percent. See MR 5-01 (Maintenance, 2-Wire DSL Services, percent Repeat Trouble Reports within 30 Days).

⁴⁸⁰ See *id.*

⁴⁸¹ The average repeat trouble report rate for the period September through December is 16.3 for competing LECs compared to 21.5 for Verizon retail. See MR 5-01 (Maintenance, 2-Wire DSL Services, percent Repeat Trouble Reports within 30 Days). We take additional comfort in Verizon's network trouble report rates for DSL loops in Massachusetts. These results further support our conclusion that Verizon provides competing carriers with maintenance and repair service in substantially the same time and manner as Verizon's own retail operations. Competing carriers experienced a trouble report rate of 1.9 percent for the months of September through December 2000 while Verizon experienced trouble report rates at a comparable 1.3 percent rate. See MR 2-02/2-03 (Maintenance, 2-Wire xDSL Services, Network Trouble Report Rate, Loop; Network Trouble Report Rate, Central Office).

c. Subloops

154. We find that Verizon provides nondiscriminatory access to subloops consistent with the requirements of section 271 and the *UNE Remand Order*.⁴⁸² The Commission's *UNE Remand Order* requires incumbent LECs to provide competitors access to subloop elements at any technically feasible point to ensure that "requesting carriers [have] maximum flexibility to interconnect their own facilities" with those of the incumbent LEC.⁴⁸³ Competitors take issue with Verizon's subloop offering claiming that Verizon limits subloops to "metallic distribution pairs/facilities;" restricts competitor subloop access to interconnection at the feeder distribution interface (FDI); and refuses to allow competitors to collocate equipment inside remote terminals for purposes of accessing subloops.⁴⁸⁴

155. We find that, consistent with our rules, Verizon allows collocation inside remote terminals on a space-available basis.⁴⁸⁵ Where space is unavailable, competitive LECs may deploy an adjacent cabinet to access subloops through an interconnecting cable.⁴⁸⁶ Furthermore, Verizon does not limit competitive LEC access to subloops to only metallic distribution facilities. Rather, Verizon allows requesting carrier to obtain access to subloop facilities regardless of the transmission medium.⁴⁸⁷ Finally, Verizon has demonstrated that competitive LECs may gain access to subloops at technically feasible points of interconnection other than the FDI.⁴⁸⁸ For these reasons, we cannot agree with the commenters' claims that Verizon limits access to subloop unbundled network elements in violation of the requirements of section 271.

d. High Capacity Loop Performance

156. We find that Verizon's performance for high capacity loops does not result in a finding of noncompliance with checklist item four. We look to the totality of the circumstances in

⁴⁸² Although nondiscriminatory access to subloops technically falls under checklist item 2, we treat subloops in this section because it is logically related to the provision of unbundled loops.

⁴⁸³ *UNE Remand Order* at para. 206. The Commission held that technically feasible points of interconnection near a customer premises could include poles or pedestals, the NID or the minimum point of entry (MPOE), the feeder distribution interface (FDI) or a remote terminal or environmentally controlled vault. *Id.*

⁴⁸⁴ Rhythms Massachusetts I Comments at 12; ALTS Massachusetts I Comments at 16-17; Covad Massachusetts I Comments at 25-28.

⁴⁸⁵ See Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at para. 44.

⁴⁸⁶ *Id.*

⁴⁸⁷ Verizon offers "feeder subloops over DS1 or DS3 transmission paths which may be either fiber or copper depending upon facilities availability." See Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at para. 137. *Id.* at Attach. P (stating that a 'Feeder Sub-Loop' means a DS1-DS3 transmission path over a feeder facility in Verizon's network).

⁴⁸⁸ Verizon specifically identifies the NID and the MPOE as possible alternative points for competing LECs to obtain access to subloops. See Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at para. 138.

evaluating Verizon's performance in providing loops in accordance with the checklist requirements.⁴⁸⁹ During the period September through November, although volumes are low, carrier-to-carrier data show that Verizon misses a comparable number of installation appointments for competitors and retail alike.⁴⁹⁰ Verizon's performance data for its maintenance and repair functions for high capacity loops show parity.⁴⁹¹ Like other types of loops we consider, Verizon states that competing carrier behavior skews its high capacity loop performance.⁴⁹² We recognize that Verizon's performance on other measures with respect to provisioning high capacity loops has been poor in Massachusetts.⁴⁹³ High capacity loops in Massachusetts represent only approximately 0.8 percent of all unbundled loops provisioned to competitors.⁴⁹⁴ Verizon performs at an acceptable level for most types of unbundled local loops. Given the low volumes

⁴⁸⁹ In so doing, we do not consider Verizon's special access services performance. OnSite Access specifically criticizes Verizon's performance in provisioning high capacity "loops" in New York and Massachusetts. *See also* On Site Access Massachusetts I Comments at 20-21 (citing Leonard Kriss Decl. at 2-6). CompTel lodges a related complaint alleging that Verizon has not demonstrated that it can comply with the competitive checklist at the same time it meets its obligation to provision access services and operate its long distance affiliate consistent with section 272's nondiscrimination requirements. *See* CompTel Massachusetts II Comments at 1-3. Criticisms of Verizon's provisioning of special access service are not relevant to compliance with checklist item four. As we held in the *SWBT Texas* and *Bell Atlantic New York Orders*, we do not consider the provision of special access services pursuant to tariffs for purposes of determining checklist compliance. *SWBT Texas Order*, 15 FCC Rcd at 18504, para. 335; *Bell Atlantic New York Order*, 15 FCC Rcd at 4126-27, para. 340. Checklist item 4 does not address itself to retail services Verizon provides to competitors such as special access services.

⁴⁹⁰ *See* PR 4-01 (UNE POTS/Special Services, percent Missed Appointments – Verizon – Total). In September and October, Verizon did not miss any installation appointments for high-capacity loops and missed 18.39 percent of its installation appointments in November. In November, the number of observations in this metric is 310 competitive LEC installations. However, this measure aggregates EEL and interoffice facilities installations. The comparable numbers over the same period for Verizon retail were 2.78, 1.90 and 1.43 percent. *See id.*

⁴⁹¹ For the period September through January, the Mean Time to Repair measure shows that Verizon troubles are resolved in 8.38 hours compared to 8.40 hours for competitive LECs during the same period. *See* MR 4-01 (Maintenance, UNE POTS, Special Services, Mean Time to Repair, Total).

⁴⁹² Verizon examined a sample of the January orders that were included in the Average Interval Offered measure (PR 1-07) and discovered that the vast majority of the orders should have been "X" coded because the competitive LEC asked for an interval longer than the standard interval. Because the orders were incorrectly "W" coded, Verizon states that they were included in the results and skewed the reported results. *See* Letter from Dee May, Executive Director Federal Regulatory, Verizon to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-09 (filed February 28, 2001) (*Verizon Feb. 28 Ex Parte Letter*).

⁴⁹³ *See e.g.*, PR 2-07 (Special Services – Provisioning, Av. Interval Completed – DS-1); PR 6-01 (Special Services – Provisioning, percent Installation Troubles reported within 30 Days).

⁴⁹⁴ Verizon states that during the period September through January, observations for PR 2-07 totaled 176 loops. Verizon notes that the high-capacity loop volumes the Commission considered in the *SWBT Kansas/Oklahoma Order* was even higher over the four month period the Commission considered in that proceeding. *See Verizon Feb. 28 Ex Parte Letter*. Letter from Dee May, Executive Director Federal Regulatory, Verizon to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-09 (filed February 28, 2001). In the period July through October, SWBT received 210 orders for DS-1 loops in Oklahoma. *SWBT Kansas/Oklahoma Order* at para. 213 n.616.

of orders for high capacity loops in Massachusetts we cannot find that Verizon's performance for high capacity loops results in a finding of noncompliance for all loop types.⁴⁹⁵

e. Voice Grade Loops

157. We agree with the Massachusetts Department that Verizon demonstrates that it provides voice grade unbundled loops in a nondiscriminatory manner.⁴⁹⁶ This category includes hot cut loops and new stand-alone loops. We discuss each of these categories separately below.

(i) Hot Cut Loop Provisioning

158. *Hot Cut Process.* Verizon's hot cut process is designed to move a loop that is in service from Verizon's switch to a competitor's switch. Competitors can request that Verizon complete the hot cut within a specific appointment window and Verizon has committed to ensuring that the customer will not be out of service for more than five minutes during the hot cut.⁴⁹⁷ Verizon's hot cut process includes a number of steps that Verizon and competitors must take during the days preceding the hot cut. These steps include pre-wiring a cross-connection from the competitor's collocation arrangement to Verizon's main distribution frame prior to the committed date and time of the hot cut, setting the appropriate Local Number Portability triggers and confirming with the competitor that the loop is to be cut over to a competitor's switch.⁴⁹⁸

159. *Hot Cut Timeliness and Quality.* We find that Verizon demonstrates that it provides hot cuts in Massachusetts in accordance with checklist item 4 because it provides hot cuts in a timely manner, at an acceptable level of quality, with minimal service disruption, and with a minimum number of troubles following installation.⁴⁹⁹ Verizon reports data on the percentage of hot cut orders completed within the cut-over window specified by the requesting competing carriers on an LSR.

160. In the instant application, Verizon demonstrates that its hot cut performance has returned to acceptable pre-strike levels which afford a competitor a meaningful opportunity to

⁴⁹⁵ Although we recognize specific performance problems for high capacity loops, we do not find that these disparities in and of themselves are enough to render a finding of checklist noncompliance because of the small numbers of DS-1 loops requested by competing carriers. We stress, however, that we will be actively monitoring Verizon's performance in this area and we will take swift and appropriate enforcement action in the event that Verizon's provisioning performance for high capacity loops deteriorates. *See infra* Part IX.

⁴⁹⁶ *See* Massachusetts Department Massachusetts I Comments at 279.

⁴⁹⁷ *See* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 81.

⁴⁹⁸ *Id.* at Attach. J.

⁴⁹⁹ We evaluate the PR 9-01 (Provisioning, POTS, percent On-Time Performance – Hot Cut); PR 6-02 (Provisioning, POTS, percent Installation Troubles reported within 7 Days – Hot Cut Loop) measures in Massachusetts.

compete.⁵⁰⁰ During October and November 2000, Verizon completed on average 96 percent of hot cut orders on time. During the same time period, less than 0.8 of the hot cut lines experienced installation troubles within 7 days.⁵⁰¹ The Massachusetts Department engaged in a reconciliation of various Verizon self-reported hot cut performance measurement data in the context of the state section 271 proceeding.⁵⁰² Relying upon the results of its carrier-specific data reconciliation, the Massachusetts Department concluded that “there is no need for further data reconciliation” and concluded that Verizon provides sufficient on-time hot cut performance to meet the requirements of checklist item 4.⁵⁰³ Because the Massachusetts Department performed a searching and specific data reconciliation of Verizon’s hot cut performance, we accord its resolution of this issue substantial weight. We note that no commenter challenges Verizon’s hot-cut conversion performance in this phase of the proceeding. We thus conclude that the record demonstrates that the hot cut performance Verizon makes available to competing carriers in Massachusetts minimizes service disruptions and affords a competitor a meaningful opportunity to compete.

(ii) New Stand-Alone Loop Provisioning

161. We agree with the Massachusetts Department that Verizon demonstrates that it provisions new unbundled stand-alone voice grade loops in accordance with the requirements of checklist item 4.⁵⁰⁴ When Verizon does not presently service the customer on the line in question, a hot cut loop is not required. In such instances, a competing carrier obtains a new stand-alone loop from Verizon which dispatches a technician to the customer’s premises to complete the installation. We find that Verizon demonstrates that it provisions and maintains new stand-alone voice grade loops for competing carriers in substantially the same time and manner that it installs new voice grade loops for its own retail operations.

162. *Provisioning Timeliness and Quality, Maintenance and Repair.* Verizon demonstrates that it delivers new voice grade loops in a timely manner and at acceptable levels of

⁵⁰⁰ See Verizon Massachusetts I Guerard/Canny Decl. at Attach. E; PR 9-01 (Provisioning POTS, percent On Time Performance – Hot Cuts). For May, PR 9-01 showed 98.45 percent on time performance, for June, PR 9-01 showed 99.63 percent on time performance and for July, PR 9-01 showed 99.19 percent on time performance. KPMG reviewed Verizon’s hot cut performance between October 1999 and January 2000 and found that 98 percent of hot cuts were completed on-time. See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 83 (citing KPMG Report at 198-99 (POP-6-2-6)). The Massachusetts Department characterizes Verizon’s hot cut timeliness performance as “excellent” and notes that unlike Verizon’s performance in New York prior to filing its application with this Commission, Verizon bettered the 95 percent “on time” benchmark in Massachusetts every month from January through July 2000. See Massachusetts Department Comments at 284-85.

⁵⁰¹ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 5.

⁵⁰² In response to criticism from one carrier, AT&T, regarding the accuracy of Verizon’s hot cut data, the Massachusetts Department engaged in a reconciliation of various Verizon self-reported hot cut performance measurement data in the context of the state section 271 proceeding. Massachusetts Department Massachusetts I Comments at 288. AT&T does not criticize Verizon’s hot cut performance in this proceeding.

⁵⁰³ Massachusetts Department Massachusetts I Comments at 288.

⁵⁰⁴ See *id.* at 256.

quality. Verizon also demonstrates that it provides maintenance and repair functions for such loops in a nondiscriminatory manner. No party specifically criticizes Verizon's new, stand-alone loop provisioning performance. As in previous section 271 orders, in reviewing Verizon's performance we examine the average completion interval, missed installation appointments, trouble reports within 7 days and mean time to repair measures. Specifically, Verizon's performance results for the months of September, October, November and December 2000 also demonstrate parity for the average completion interval for new loop orders of 1-5 lines measure.⁵⁰⁵ During the same period, Verizon's missed installation appointment rate for new voice loops also demonstrated parity.⁵⁰⁶ Furthermore, Verizon appears to be providing new voice grade loops to competitors at an acceptable level of quality. Based on the trouble report within 7 days measure, Verizon provided installation at the same level of quality for competitive LECs compared to retail during the months of September, October, November and December 2000.⁵⁰⁷ Verizon's mean time to repair measures show that it is providing maintenance and repair functions for new loops to competitors in a nondiscriminatory manner.⁵⁰⁸

f. Line Sharing

(i) Background

163. On December 9, 1999 the Commission released the *Line Sharing Order* that, among other things, defined the high-frequency portion of local loops as a UNE that must be provided to requesting carriers on a nondiscriminatory basis pursuant to section 251(c)(3) of the Act and, thus, checklist items 2 and 4 of section 271.⁵⁰⁹ In the *Line Sharing Order* the

⁵⁰⁵ In September, Verizon completed POTS loop orders of 1-5 lines in 8.82 for Verizon retail and 8.53 for competitors. The comparable numbers for October were 5.81 for Verizon retail affiliate and 9.22 and 5.45 for Verizon retail and 4.86 for competitors in December. See PR 2-03 (Provisioning, Average Completed Interval, Dispatch 1-5 lines – Loop).

⁵⁰⁶ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at Attach. A. The September to November missed appointment rate, PR 4-04, is 8.13 percent for Verizon and 7.09 percent for [competing carriers]. The December rate was 6.96 for Verizon and 10.31 for competing LECs. See PR 4-04 (Provisioning, POTS, percent Missed Appointments, Verizon, Dispatch, Loop – New).

⁵⁰⁷ The percentage of installation troubles reported on voice grade loops for competitors were 1.13 percent in September, .98 percent in October, .80 percent in November and .74 in December. The comparable numbers for Verizon were 2.39 in September, 1.87 in October, 1.77 in November and 1.60 in December. See PR 6-02 (Provisioning, POTS, percent Installation Troubles reported within 7 Days – Loop).

⁵⁰⁸ Results for the mean time to repair measure, Mean Time to Repair – Total, in the months of September, October, November and December show parity. Competitor troubles were repaired in 19.77 hours in September, 18.52 hours in October, 19.00 hours in November and 15.38 hrs in December. Verizon's troubles were repaired in 21.63 hours in September, 17.68 hours in October, 17.95 hours in November and 16.98 hrs in December. See MR 4-01 (Maintenance, POTS Loop, Mean Time to Repair – Total).

⁵⁰⁹ See *Deployment of Wireline Services Offering Advanced Telecommunications Capabilities and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order, CC Docket No. 98-147, Fourth Report and Order, CC Docket No. 96-98, 14 FCC Rcd 20912 (1999) (*Line Sharing Order*) (pet. for rehearing pending sub nom. *USTA v. FCC*, DC Cir. No. 00-102 (filed Jan 18, 2000)).

Commission acknowledged that it could take as long as 180 days from the release date for incumbent LECs to develop and deploy the modifications necessary to implement this new requirement. This 180 day period concluded on June 6, 2000, approximately six months before Verizon filed its Massachusetts II application. In the *SWBT Kansas/Oklahoma Order*, the Commission provided BOC-applicants guidance concerning the required section 271 line sharing showing necessary to meet a BOC's burden of proof. Specifically, the Commission stated that "a successful BOC-applicant should provide evidence that its central offices are operationally ready to handle commercial volumes of line sharing and that it provides competing carriers with nondiscriminatory access to the pre-ordering and ordering OSS functions associated with the provision of line shared loops, including access to loop qualification information and databases."⁵¹⁰ The Commission also held that "to the extent that a BOC applicant relies upon commercial data from another state to establish that it is providing nondiscriminatory access to line shared loops in a state where it requests section 271 authority, it should provide evidence that the OSS and provisioning processes are identical."⁵¹¹ Verizon must demonstrate, therefore, that it provides nondiscriminatory access to the unbundled high-frequency portion of the loop to gain section 271 approval in Massachusetts.

164. Verizon proposes to demonstrate compliance with its line sharing obligation with evidence that it has signed nine interconnection agreements in Massachusetts with line sharing provisions. Verizon also notes that the Massachusetts Department recently approved its line sharing tariffs, with only minor amendments.⁵¹² It further states that it is able to handle "considerable volumes of line sharing orders" by utilizing its successful New York provisioning methods and procedures in Massachusetts.⁵¹³ Finally, through the New York DSL collaborative,

⁵¹⁰ *SWBT Kansas/Oklahoma Order* at para. 215.

⁵¹¹ *SWBT Kansas/Oklahoma Order* at para. 215. The Commission further stated that to "the extent its OSS provisioning processes are not identical, a BOC applicant bears the burden of showing that whatever differences are present are not material." *Id.*

⁵¹² Verizon offers competing carriers two arrangements for line sharing pursuant to its interconnection agreements and line sharing tariff. The first arrangement provides a competing carrier with the ability to install, own and maintain the splitter in the competing carrier's own collocation arrangement. In the second arrangement, a competitive LEC-owned splitter is located in Verizon's central office space and is maintained by Verizon. See Verizon Massachusetts I Ruesterholz/Lacouture Decl. at para. 118. As part of its *Phase III* proceeding, the Massachusetts Department has directed Verizon to implement OSS enhancements to support line sharing by April 1, 2001. The Massachusetts Department, however, found that the fact that line sharing orders currently require manual processing does not prevent it from finding that Verizon satisfies its nondiscrimination obligation. See Massachusetts Department Massachusetts I Comments at 328. Covad contests Verizon's showing that it offers line sharing capability over fiber-fed loops. Covad Massachusetts II Comments at 35. Verizon responds that it satisfies the Commission's requirements through remote terminal collocation and unbundled subloop offerings. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 160-65. We note that the issue of line sharing over fiber-fed loops is the subject of a *Further Notice of Proposed Rulemaking* at the Commission. See Line Sharing Reconsideration Order at para. 12; see also *accompanying*, Third Further Notice of Proposed Rulemaking in CC Docket No. 98-147, Sixth Further Notice of Proposed Rulemaking in CC Docket No. 96-98.

⁵¹³ Verizon Massachusetts I Ruesterholz/Lacouture Decl. at para. 114. In its initial application Verizon stated that it has provisioned over 7,000 line sharing orders in New York, the majority of which were for its own data affiliate. See *id.* Verizon's Massachusetts II application shows that Verizon has processed roughly 10 times the (continued....)

it has worked with competing carriers to identify and resolve various technical and operational issues associated with line sharing in Massachusetts.⁵¹⁴ Competing carriers contest Verizon's operational readiness to offer line sharing and Verizon's ability to offer line sharing on a nondiscriminatory basis.⁵¹⁵

(ii) **Discussion**

165. We find that Verizon demonstrates that it provides nondiscriminatory access to the high-frequency portion of the loop. Specifically, the most probative evidence that Verizon submits to support this point is actual commercial usage.⁵¹⁶ The Commission stated in the *SWBT Kansas/Oklahoma Order* that “a successful BOC applicant could provide evidence of BOC-caused missed installation due dates, average installation intervals, trouble reports within 30 days of installation, mean time to repair, trouble report rates and repeat trouble report rates.”⁵¹⁷ Our approach in this case is to rely primarily on the limited commercial data Verizon has submitted from its Massachusetts operations. Because line sharing volumes in Massachusetts have escalated only recently, however, we look to Verizon's line sharing performance in New York as well, (Continued from previous page) _____

number of line sharing orders for its retail affiliate compared to line sharing orders processed for unaffiliated competing LECs.

⁵¹⁴ Verizon Massachusetts I Ruesterholz/Lacouture Decl. at para. 115. For example, Verizon asked competing carriers to identify their priority wire centers throughout Massachusetts by March 13, 2000 so that Verizon could prioritize the central office wiring work necessary to accommodate line sharing requests. *Id.* at 127.

⁵¹⁵ See Covad Massachusetts II Comments at 7-8; Rhythms Massachusetts II Comments at 6; CIX Massachusetts II Comments at 7; USISPA Massachusetts II Reply at 9; AT&T Massachusetts II Reply at 25; Covad Massachusetts I Comments at 28; WorldCom Massachusetts I Comments at 62; Rhythms Massachusetts I Reply at 18; ALTS Massachusetts I Reply at 36. On March 14, 2001, Verizon filed an *ex parte* letter in this proceeding stating that Verizon has “taken steps to address the outstanding issues” between Rhythms and Verizon and accordingly, Rhythms “no longer opposes Verizon's Application for section 271 authority in Massachusetts.” Letter from Kimberly A. Scardino, Assistant General Counsel, Rhythms to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 14, 2001). Rhythms had argued that where Verizon completed pre-wiring collocation work, in some instances it was wired incorrectly or the cable and pair assignment were not entered into Verizon's inventory system. See Rhythms Massachusetts II Comments, Williams Decl. at para. 39. Covad claims that Verizon cannot “provision a single line shared order in a central office while at the same time Verizon was shutting off line-sharing ready central offices for its own retail service because orders are flowing through beyond capacity.” Letter from Jason D. Oxman, Senior Government Affairs Counsel, Covad to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 at 1 (filed Feb. 21, 2000); see also Letter from Jason D. Oxman, Senior Government Affairs Counsel, Covad to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 00-176 at 1 (filed Nov. 28, 2000) (arguing that walkthroughs of Verizon central offices showed incomplete splitter installations as of the week of November 20, 2000). Verizon responds that Covad and Rhythms are the only competing carriers that submitted their line sharing plans to Verizon's project management plan and that installation of splitters was performed on a timely basis. Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 112-13. The Massachusetts Department found that whatever delays resulted from splitter installation were attributable to competing carriers, specifically Covad. Massachusetts Department Massachusetts I Comments at 327.

⁵¹⁶ See *supra* Part II.A.

⁵¹⁷ See *SWBT Kansas/Oklahoma Order* at para. 215.

where line sharing volumes are larger for additional evidence that Verizon is providing nondiscriminatory access to line sharing.⁵¹⁸ As discussed above, we conclude that Verizon's line sharing OSS in New York and Massachusetts uses the same systems and offers the same functionality.⁵¹⁹ Accordingly, we shall consider Verizon's commercial line sharing performance in New York as a supplement to Verizon's limited commercial line sharing performance in Massachusetts.

166. *Operational Readiness.* Competitive LECs take issue with Verizon's ability to wire adequately central offices to offer line sharing.⁵²⁰ Covad specifically contests Verizon's representation that it was operationally ready to provision line sharing for all splitter collocation arrangements in place as of December 1, 2000.⁵²¹ In response, Verizon states that it recognized

⁵¹⁸ From September 2000 through January 2001, Verizon has provided a total of approximately 51,000 line shared loops in Massachusetts including those for VADI. During December and January, Verizon completed nearly 500 line shared loops for competitors in Massachusetts. *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 103. In New York, Verizon has processed 110,000 line shared orders including those provided to VADI. *See id* at para. 28.

⁵¹⁹ *See supra* Part IV.A.2.b. The Massachusetts Department concluded that the "systems and processes in Massachusetts are comparable to, indeed the very same as, those found in New York." Massachusetts Department Massachusetts II Comments at 35; *see also* Verizon Massachusetts II Sapienza/Mulcahy Decl. App. A, Attach. B. PwC also investigated whether VADI has the same interface options as unaffiliated competitive LECs and whether Verizon treats transactions it receives from VADI the same as transactions it receives from unaffiliated competitive LECs. PwC confirmed that VADI offers DSL service using line sharing purchased from Verizon using the same interfaces that are available to other unaffiliated competitive LECs. VADI generally uses CORBA for pre-ordering, EDI for ordering and the Web GUI for maintenance and repair. In addition, PwC confirmed that once Verizon receives the orders over the interface, it provisions a VADI order using the same systems and processes as it uses to provision an order for any other competitive LEC. Likewise, PwC reports that VADI's maintenance and repair requests are handled by Verizon in the same manner as a request from an unaffiliated competitive LEC. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl at para. 143. Verizon does, however, reveal that a "small percentage" of VADI's New York line sharing orders are distributed by a team leader in the Boston xDSL/Line Sharing Center to a group of approximately 35 temporary service order representatives located in New York. Verizon contends that it retained these temporary representatives to clear a backlog of retail DSL orders in New York that existed before VADI was operational. Verizon Massachusetts II Lacouture/Ruesterholz Supp. Decl. at para. 154. This slight difference in OSS functionality does not alter our conclusion that the OSS in New York and Massachusetts are identical for purposes of the Commission's consideration of New York line sharing commercial data.

⁵²⁰ *See* Covad Massachusetts II Comments at 6; Rhythms Massachusetts II Comments at 8. Rhythms contends that Verizon's explanation of defective splitter installation could not apply to it because Rhythms has elected to place splitter in Rhythms collocation spaces and the only remaining central office wiring work to be done is the re-termination of existing 200 cable and pair, a process that Rhythms claims is simple and accomplished quickly. Rhythms Massachusetts II Comments at 8.

⁵²¹ Covad argues that it requested that 55 central offices in Massachusetts offer line sharing capability. As of February 21, 2000, Covad has successfully provisioned line sharing in 44 of those 55 offices and it has provided the CLLI codes for those offices where Covad has pending orders. *See* Covad Massachusetts II Reply at 19; *see also* Rhythms Massachusetts II Comments at 8. Verizon responds that only two of the offices Covad initially complained of are in Massachusetts and of these two, it has provisioned Covad orders in a number of the central offices which are relevant to this application. *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 131. As to the status of contested offices in New York, Verizon responds that Covad's claim that its "Failed (continued....)

central office wiring problems that delayed the readiness of certain offices and committed to reinspections of all line-sharing related central office work beginning in December 2000.⁵²² The Department of Justice recognizes that “Verizon is making efforts to resolve its line sharing implementation difficulties” and the Massachusetts Department urges us to find that Verizon provides nondiscriminatory access to the high frequency portion of the loop.⁵²³

167. Verizon has now completed all the quality inspections and has “taken the necessary corrective action for all of the line sharing-related collocation arrangements that were in place as of December 1, 2000 . . . in both Massachusetts and New York.”⁵²⁴ Verizon has also agreed to implement the elements of its quality inspection process into the normal collocation inspection process and thus, new line sharing-related collocation arrangements will be subject to this inspection process as well.⁵²⁵ It therefore appears that Verizon instituted its quality inspection process and completed any necessary corrective action as it became aware of central office wiring issues described by competitive LECs.⁵²⁶

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Dispatch Report” shows discrimination is misplaced because joint investigations at these central offices show that the orders have failed due to operational and other problems on Covad’s part. *Id.* at 133-35. Covad concedes that for some of its collocation arrangements, it is possible that “Covad has not yet installed DSLAM cards in a particular office to support line sharing capability” to conserve scarce resources but nonetheless argues that regardless of whether such equipment is installed, Verizon has an obligation to ensure that the office is line-sharing ready. Covad Massachusetts II Reply at 20 n.35. Verizon offers a similar response to Rhythm’s allegations that several Massachusetts central offices are not line sharing ready. Verizon contends that the central offices in question have been re-examined and it has not found any wiring problems. Verizon further responds that its records show that of the LSRs submitted by Rhythms only a small proportion of the central offices in Massachusetts are at issue. Of these offices, Verizon claims that it has completed line sharing orders for Rhythms in nearly all of the central offices at issue in Massachusetts. *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 143-145.

⁵²² Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 138.

⁵²³ Massachusetts Department Massachusetts II Comments at 36-38; Department of Justice Massachusetts II Evaluation at 14.

⁵²⁴ *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para 126; *see also* Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed February 23, 2001). Covad represents that it submitted “every single one of its linesharing collocation applications in Massachusetts in April 2000.” Covad Massachusetts II Reply at 22.

⁵²⁵ *See* Letter from Dee May, Executive Director Federal Regulatory, Verizon to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed February 22, 2001). Rhythms argues that Verizon did not institute its quality inspection audit process soon enough. *See* Rhythms Massachusetts II Comments at 8. Verizon responds that its “implemented the inspection process as soon as it became aware of the start-up issues.” Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 37.

⁵²⁶ *See* Verizon Massachusetts II Lacouture/Ruesterholz. Reply Decl. at para. 137. Verizon has continued to address these issues, particularly with Covad. Recent reports suggest that Verizon has largely, if not completely, resolved central office wiring issues that have affected the deployment of line-shared services by competing carriers. *See* Letter from Jason Oxman, Senior Counsel, Covad to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9, (filed April 6, 2001) (stating that “Covad verified, in (continued....)

168. *Line Sharing Performance Data.* Verizon has supplied a limited amount of Massachusetts commercial data for the period September through November 2000 in support of its line sharing showing.⁵²⁷ To show that the data are reliable, Verizon engaged PwC to replicate its carrier-to-carrier results and 34 line sharing measures for the period September through November, the results of which, according to PwC, largely confirm the results presented by Verizon.⁵²⁸ We recognize the Department of Justice's concerns that some of the line sharing completion interval data may be inaccurate.⁵²⁹ Like the Massachusetts Department, however, we conclude that the data adequately show that Verizon has met its line sharing obligation.⁵³⁰ The New York Commission only recently directed Verizon to capture its xDSL performance in disaggregated line sharing measures. In this case, we decline to hold isolated inaccuracies against Verizon where the method of reporting and collecting data is new and the underlying cause of the distortion has been addressed by Verizon.⁵³¹ In this context, we believe it is appropriate to credit Verizon's submission of Massachusetts commercial line sharing data, supplemented by data from New York, when making our determination that Verizon provides nondiscriminatory access to the high-frequency portion of the loop. Specifically, we are convinced that the flawed timeliness measures provide evidence of the time it takes Verizon to provision line shared loops.

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Massachusetts, that Verizon honored its commitment to clear all infrastructure related troubles, throughout the former Bell Atlantic footprint, by February 15, 2001").

⁵²⁷ See Verizon Massachusetts II Sapienza/Mulcahy Decl. at para. 13.

⁵²⁸ See *id.* (finding that for the majority of the line sharing measurements, PwC's numbers matched Verizon's and that for the remaining measurements, the number of observations was consistent and Verizon's reported performance was within one percent).

⁵²⁹ While PwC confirmed that Verizon accurately calculated the missed appointment rates under the terms of the new consensus measurements, the reported results may overstate Verizon's performance. Verizon's technicians may have marked some competitive LEC orders as completed after they had tested the line and received a working dialtone, even though the splitter to enable DSL serve on that line may not initially have been installed correctly. Verizon however has committed to adopt additional testing procedures to ensure that line sharing orders are not marked completed unless working splitters are in place. See Verizon Massachusetts II Application at 30 n.25. The Department of Justice states that this problem "affected those performance measures calculated using the provisioning completion date: PR-2 (average interval completed); PR 3-10 (percent completed within x days); and PR-4 (missed appointments)." Department of Justice Massachusetts II Evaluation at 13 n.54. Competing carriers also contest Verizon's line sharing showing and argue that the current record is insufficient to support a finding of nondiscrimination. See Covad Massachusetts II Comments at 8; Rhythms Massachusetts II Comments at 6; CIX Massachusetts II Comments at 24.

⁵³⁰ The Massachusetts Department notes that Verizon states that for the percent missed appointments – dispatch measure, PR 4-05, "Verizon may not have included those instances where Verizon's technician performed the central office work typically required for xDSL loops but failed to confirm that a splitter . . . was functioning on the line." Massachusetts Department Massachusetts II Comments at 37. The Massachusetts Department found that Verizon's manual processing of line sharing orders "will be short-lived and, even absent complete line sharing order flow-through" Verizon can meet foreseeable demand for line sharing. Massachusetts Department Massachusetts I Comments at 327.

⁵³¹ Verizon now performs a "splitter signature test" which is used "to determine whether the splitter, which is necessary for line sharing, is functioning on the line." Verizon Massachusetts II Reply at 23.

169. *Provisioning Timeliness.* Overall, Verizon adequately demonstrates that it provisions line sharing to competitors in substantially the same time as it does for itself. We note at the outset that we give no decisional weight to Verizon's missed appointment data for line sharing in New York and Massachusetts. Although the data on their face show that Verizon meets the parity standard⁵³² we agree with the Department of Justice, the Massachusetts Department and even Verizon itself, that the measure may be flawed.⁵³³ Specifically, Verizon states that this measure may not have captured those instances where a Verizon technician performed the central office work typically required for xDSL loops but failed to confirm that a splitter was functioning on the line.⁵³⁴ Parties criticizing the completion measures appear to argue that because a Verizon technician did not test for a functioning splitter, the quality – rather than the timeliness – of Verizon's installation work is unacceptable.⁵³⁵ While we recognize that performing the additional work required to test whether a splitter was functioning on the line could have an impact on the completion measures, we find that the data provided by Verizon are probative of the time it takes Verizon's technicians to install line-shared service.⁵³⁶ We are therefore not prepared to dismiss all of the evidence of commercial usage as USISPA suggests because the inaccuracies appear to be limited to the completion measures and are not so pervasive as to render Verizon's line sharing data completely untrustworthy.⁵³⁷ Furthermore, as Verizon became aware of this problem, it addressed this data integrity issue by properly instructing its installation personnel to code orders as complete after properly functioning splitters are working on a given line, implementing its quality inspections for line sharing-related collocation work and performing a splitter signature test to ensure that the quality of its installation work was

⁵³² In September, October, and November in Massachusetts, Verizon did not miss any competitive LEC line sharing appointments. In December, Verizon missed approximately one percent of competitive LEC appointments. Verizon has supplied provisioning information for its separate data affiliate, VADI, only for the month of November. In November, these results demonstrate parity. *See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at Attach. JJ.*

⁵³³ Verizon Massachusetts II Application at 30 n.25. The Massachusetts Department believes that the measure is sufficiently flawed to merit exclusion of this information as evidence that Verizon is providing nondiscriminatory access to line sharing. Massachusetts Department Massachusetts II Comments at 37. The Department of Justice agrees and characterizes the measure as “substantially undermined” by the inaccuracies captured in the measure. *Id.* at 13.

⁵³⁴ Verizon Massachusetts II Brief at 30 n.25. Without such testing, even though technicians have confirmed dial-tone to and from the splitter, Verizon is unable to confirm that a splitter is properly functioning on a line.

⁵³⁵ *See Covad Massachusetts II Comments at 8; see also Department of Justice Massachusetts II Evaluation at 13.*

⁵³⁶ Even with the miscoding, the measures describe accurately the amount of time Verizon technicians required to install line-shared service without the added task of performing a splitter signature test. Because failure to install a functioning splitter on a line could prevent line-shared service, the lack of a splitter test suggests that the quality of the work, rather than its timeliness, was affected.

⁵³⁷ We disagree with USISPA that the line sharing “measurements simply do not exist.” USISPA Massachusetts II Reply at 6.

acceptable. Indeed, the record shows that during the period of time not affected by the distortion, Verizon's timeliness performance demonstrates parity.⁵³⁸

170. The average completion interval data for line sharing show parity.⁵³⁹ While Verizon has supplied no retail information as a basis for comparison during the months of September and October for Massachusetts data, the average completion interval measure in November shows that Verizon required slightly more than six days to provision line-shared loops to competitors compared to over seven days for itself.⁵⁴⁰ In New York, for the months of September and November, performance for competitive LECs is superior to that provided to VADI.⁵⁴¹ Although these data show that Verizon is performing at parity we note that Verizon's performance is generally above the 5-day interval established by the Massachusetts Department even as the current interval is scheduled to be reduced to four days in the near future.⁵⁴² It is

⁵³⁸ Verizon remedied this miscoding problem by December 15, 2000. In Massachusetts, the missed appointment measure in January shows that Verizon missed only one percent of competitive LEC line sharing installation appointments. Verizon argues that the January results show that "the impact on the performance measures caused by the lack of the splitter signature test was minimal." Letter from Dee May, Executive Director Federal Regulatory, Verizon to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 19, 2001). The December results also show that Verizon misses less than one percent of installation appointments for competing carrier line sharing orders. *See id.*

⁵³⁹ We acknowledge that the failure of Verizon's technicians to test whether a splitter was functioning on the line may also have affected the average completion interval. As discussed above, Verizon has addressed this data integrity issue going forward and has instituted a quality inspection program to ensure that competitive LECs receive acceptable installation quality performance.

⁵⁴⁰ The Massachusetts average completion interval in November was 6.37 days for competitive LECs compared to 7.53 days for VADI. In September, Verizon completed competitive LEC line sharing orders in 6.47 days and 6.29 days in October. *See Verizon Massachusetts II Lacouture/Ruesterholz Decl.* at para. 159 & Attach. NN. Verizon has also presented data for another interval measure, the percent completed within 6 days measure. In New York, from September through November, Verizon completed 74.87 percent of competitive LEC orders and 71.60 percent of VADI orders within six days, where a six day interval was requested. *See Verizon Massachusetts II Lacouture/Ruesterholz Decl.* at para. 159 & Attach. OO. Verizon contends that a majority of the competitive LEC orders not completed within six days are completed within seven days. In Massachusetts, over 93 percent of the competitive LEC line sharing orders in the period September through November were completed within seven days. *See id.*

⁵⁴¹ For the months of September, October and November, the average completion interval for competitive LECs in New York was 5.59, 6.4, and 6.42 days compared to 9.15, 6.2, 6.02 days for VADI. *See Verizon Massachusetts II Lacouture/Ruesterholz Decl.* at 159, Attach. MM.

⁵⁴² Verizon has introduced flow through capability for line-shared ADSL orders and will accomplish line sharing provisioning for most orders without the time necessary to dispatch a technician to install service. Given the fact that line sharing provisioning is largely accomplished without manual intervention, the Massachusetts Department ordered Verizon to reduce its line sharing interval from 6 days to five days effective November 27, 2000. Massachusetts Department Massachusetts I Comments at 36 n.110; *see also* CIX Massachusetts I Comments at 25. Verizon states that its 5-day interval tariff for line sharing orders of 1-9 lines went into effect on November 27, 2000 and Verizon "is now complying with the new interval." *See D.T.E. Tariff No. 17, Part A, Section 3.2.10.* Additionally, Verizon has committed to file, as required by the Massachusetts Department, a tariff reducing the provisioning interval by an additional business day after the April 1st deadline for fully implementing certain OSS upgrades. *See Verizon Massachusetts I Lacouture/Ruesterholz Decl.* at para. 164.

encouraging that Verizon is moving toward meeting this state-approved provisioning interval while it gains additional experience provisioning commercial volumes of line shared orders.

171. *Installation Quality & Maintenance and Repair.* Based on the commercial data presented in Massachusetts, Verizon appears to be providing line shared loops at acceptable levels of quality. Although VADI did not submit any trouble reports within thirty days of installation in the month of November, the competitive LEC rate was 1 percent and in September and October 2000, competitive LECs did not report any troubles on line-shared loops captured by the measures.⁵⁴³ In New York, from September through November, the weighted average of installation troubles for competitive LECs was 1.70 percent compared to less than one percent for VADI.⁵⁴⁴

172. With respect to maintenance and repair, Verizon repairs loops for competitors in less time than it takes to repair retail line-shared loops. In November, the only month for which Verizon provided such data in Massachusetts, Verizon repaired competing carrier line-shared loops in just over three hours.⁵⁴⁵ Verizon represents that it took significantly longer to repair loops for VADI – over 25 hours.⁵⁴⁶ In New York, Verizon shows that the mean time to repair is comparable to stand-alone xDSL loop repair times and offers competitors nondiscriminatory access to maintenance and repair functions.⁵⁴⁷ Verizon also shows that its repair services are performed at acceptable levels of quality.⁵⁴⁸ Thus we find that the data suggest that Verizon is

⁵⁴³ Massachusetts Department Massachusetts II Comments at 36. We are mindful that, because Verizon has committed to resolving line sharing troubles through a coordinated process, it addresses some number of line sharing troubles “without the receipt of a trouble ticket” and concedes that the “small number of maintenance and repair requests reported is likely attributable to that interim process.” See Verizon Massachusetts II Lacouture/Ruesterholz Supp. Decl. at para. 156.

⁵⁴⁴ Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 166 & Attach. SS. Covad argues that Verizon’s line sharing I-code data are skewed because Verizon classifies troubles associated with splitter wiring as “CPE troubles” which show up in the performance measure as competitive LEC-caused troubles. Covad Massachusetts II Reply at 15. Verizon responds that Covad mistakenly assumes that Verizon’s trouble designation codes are designed to assign blame for a trouble ticket to Verizon or a competitive LEC. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 119. The codes at issue are designed to indicate whether the trouble is caused by an item in the Verizon or competitive LEC network. Because splitters are not part of Verizon’s network Verizon codes splitter troubles accordingly.

⁵⁴⁵ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 71.

⁵⁴⁶ *Id.*

⁵⁴⁷ During September through November, the mean time to repair for competitive LECs was 16 hours compared to slightly longer than 10 hours for VADI. Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 172. In New York, from September through November, Verizon met more than 92 percent of the repair appointments that did not require a dispatch for both VADI and competitors. Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 170 & Attach. TT.

⁵⁴⁸ Verizon also provided the percentage of repeat trouble reports for both competitors and VADI. These data demonstrate that Verizon provides superior service to competitors compared to itself. See MR 5-01 (Line Sharing, percent Repeat Troubles w/30 Days).

providing line-shared loops at an acceptable level of quality and repairing these facilities in a nondiscriminatory manner.

173. Although we have some concerns with the accuracy of Verizon's performance results and the limited volume of competitive LEC orders captured by the measures, we base our decision on measures not affected by such inaccuracies, the replication of other measures by PwC and Verizon's efforts in addressing the central office wiring issues that have impaired the ability of competitive LECs to submit commercial volumes of line sharing orders. Recent efforts by Verizon have substantially, if not completely, addressed the initial central office wiring implementation issues experienced by competitive LECs in Massachusetts.⁵⁴⁹ Furthermore, we also note that Verizon has designed a process to address line sharing implementation difficulties going forward.⁵⁵⁰

g. Line Splitting

(i) Background

174. In the *Line Sharing Order on Reconsideration*, the Commission made clear that line splitting is an existing legal obligation and that incumbent LECs must allow competitors to order line splitting immediately, whether or not a fully electronic interface is in place.⁵⁵¹ The Commission further stated that “we expect Bell Operating Companies to demonstrate, in the context of section 271 applications, that they permit line splitting, by providing access to network elements necessary for competing carriers to provide line-split services.”⁵⁵² We discuss below the steps Verizon has taken to offer line splitting capabilities consistent with the *Line Sharing Order on Reconsideration*.⁵⁵³

⁵⁴⁹ See Letter from Kimberly A. Scardino, Rhythms to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-09 (filed March 2, 2001).

⁵⁵⁰ Verizon has designated a single point of contact for each competitive LEC to address line sharing ordering or provisioning processes regardless of whether they arise in Verizon's TISOC, CLPC or RCMC. Verizon is participating in the Commission's “Line Sharing Summit” and is engaged in a dialogue with competitive LECs to further improve the line sharing process. Verizon has also introduced flow through capability on line sharing orders for connections requiring less than three lines. Verizon has also accompanied Covad on site visits of several Massachusetts central offices to address what it terms are several “minor collocation-related issues.” See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 139.

⁵⁵¹ Third Report and Order and Order on Reconsideration, CC Docket No. 98-147; Fourth Report and Order on Reconsideration, CC Docket No. 96-98; Third Further Notice of Proposed Rulemaking; CC Docket No. 98-147; Sixth Further Notice of Proposed Rulemaking; CC Docket No. 96-98 (rel. Jan. 19, 2001) at para. 20 n.36.

⁵⁵² *Id.*

⁵⁵³ The Massachusetts Department recognizes that Verizon is required to offer line splitting but requests that the Commission “take into account the recent nature of both its and the Department's clarifying Orders on line splitting when reviewing” Verizon's section 271 application. Massachusetts Department Massachusetts II Comments at 41.

175. Verizon states that it currently offers the unbundled network elements that would allow line-split services.⁵⁵⁴ On February 14, 2001, Verizon issued a statement of policy to accommodate line splitting.⁵⁵⁵ Additionally, Verizon has incorporated line splitting contract language reflecting this policy into its Model Interconnection Agreement which it will make immediately available to any carrier who wishes to offer line-split services.⁵⁵⁶ Verizon has also demonstrated that it offers competitors nondiscriminatory access to the individual network elements necessary to provide line-split services and that nothing prevent competitors from offering voice and data services over a single unbundled loop.⁵⁵⁷ Several competitors contest the adequacy of this language and argue that Verizon is currently not in compliance with the Commission's line sharing and line splitting requirements.⁵⁵⁸ These carriers further contend that Verizon has engaged in a pattern of recalcitrant behavior with regard to implementing line sharing and line splitting requirements and the Commission should not credit its promises of future compliance.⁵⁵⁹

(ii) Discussion

176. Verizon demonstrates that it makes it possible for competing carriers to provide voice and data service over a single loop – *i.e.*, to engage in “line splitting.”⁵⁶⁰ Specifically, Verizon demonstrates that it has concrete and specific legal obligation to provide line splitting

⁵⁵⁴ See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at 149.

⁵⁵⁵ Verizon issued its statement of policy on February 14, 2001, approximately three weeks after this Commission issued the *Line Sharing Reconsideration Order*. See Verizon Massachusetts II Lacouture/Ruesterholz Reply. Decl. at 154. AT&T argues that Verizon must at least demonstrate it has a nondiscriminatory process in place to support line-split services. AT&T Massachusetts II Reply at 24; see also USISPA Massachusetts II Reply at 5; CompTel Massachusetts II Comments at 3-5.

⁵⁵⁶ In its line splitting amendment, Verizon commits to offer line splitting consistent with the Commission's *Line Sharing Reconsideration Order* by utilizing Verizon's OSS to order the unbundled network elements necessary to provide line-split services. With regard to migrations of UNE-P customers to line splitting, Verizon commits to follow the implementation schedules, terms, conditions and guidelines established in the ongoing DSL collaborative at the New York Public Service Commission. Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at 154, Attach. Q.

⁵⁵⁷ See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 149-58. Verizon further argues that the Commission has already held that Verizon can provide unbundled network elements in combination, and line splitting can be achieved through the combination of unbundled network elements. See *id.* at para. 158.

⁵⁵⁸ See AT&T Massachusetts II Reply 24; WorldCom Massachusetts II Reply at 12-13; Covad Massachusetts II Reply at 5-6.

⁵⁵⁹ AT&T Massachusetts II Reply 24; WorldCom Massachusetts II Reply at 12-13; Covad Massachusetts II Reply at 5-6.

⁵⁶⁰ *Line Sharing Reconsideration Order* at para. 14-25; *SWBT Texas Order*, 15 FCC Rcd at 18515-17, paras. 323-329 (describing line splitting); 47 C.F.R. § 51.703(c) (requiring that incumbent LECs provide competing carriers with access to unbundled loops in a manner that allows competing carriers “to provide any telecommunications service that can be offered by means of that network element”).

through rates, terms and conditions in interconnection agreements. As a result, a competing carrier may, for instance, provide voice service using UNE-P and, either alone or in conjunction with another carrier, provide xDSL service on that same line.

177. Our recent *Line Sharing Reconsideration Order* is clear: Verizon must permit competing LECs to offer both voice and data services over a single unbundled loop in a line splitting configuration.⁵⁶¹ The Commission also stated that incumbents must make necessary network modifications including access to OSS necessary for the “pre-ordering, ordering, provisioning, maintenance and repair and billing for loops used in line splitting arrangements.”⁵⁶² As carriers identify operational issues associated with line splitting, the Commission recognized that state collaboratives and change management processes could be used by “incumbent LECs and competing carriers to work together to develop processes and systems to support competing carrier ordering and provisioning of unbundled loops and switching necessary for line splitting.”⁵⁶³

178. We disagree with WorldCom’s contention that Verizon’s line-splitting interconnection agreement language limits line splitting to carriers who are collocated in Verizon central offices or that Verizon is taking the position that the UNE-P providers may not line split unless they are collocated.⁵⁶⁴ Verizon’s contract language, which includes a reference to “collocator to collocator” connections, does not require UNE-P providers to be collocated in Verizon central offices to offer line split services.⁵⁶⁵ Rather, UNE-P providers need not obtain collocation in Verizon central offices to offer the voice component of line-split services.

179. Verizon’s interconnection agreement amendment is also consistent with our *Line Sharing Reconsideration Order*, which requires that incumbent LECs minimize service disruptions to existing voice customers undergoing a transition to line-splitting.⁵⁶⁶ For example, where competitive LECs provide data service to existing end user customers and Verizon

⁵⁶¹ *Line Sharing Reconsideration Order* at para. 18.

⁵⁶² *Id.* at paras. 18-20.

⁵⁶³ *Id.* at para. 21.

⁵⁶⁴ *See* WorldCom Massachusetts II Reply at 13.

⁵⁶⁵ *See* Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 23, 2001) (clarifying that voice providers in line splitting arrangements are not required to be collocated). We note that where a competitive LEC purchases an unbundled xDSL-capable loop terminated to its collocation arrangement to provide data service, it may partner with another competitive LEC to provide voice service. In this situation, the data provider may require a connection to the voice provider’s collocation arrangement.

⁵⁶⁶ Verizon’s line splitting amendment refers to “existing supporting OSS to order and combine” unbundled network elements necessary for line-split services. *Line Sharing Reconsideration Order* at para. 22. WorldCom likewise asserts that Verizon’s contract language suggests that it intends to charge a series of non-recurring charges associated with each unbundled network element to its line-splitting customers that it does not charge to its UNE-P customers. *See* WorldCom Massachusetts II Reply at 13.

provides voice service to that customer there is no need to “rearrange” network facilities to provide line-split services.⁵⁶⁷ Because no central office wiring changes are necessary in such a conversion from line sharing to line splitting, Verizon is required under our *Line Sharing Reconsideration Order* to develop a streamlined ordering processes for formerly line sharing competitive LECs to enable migrations between line sharing and line splitting that avoid voice and data service disruption and make use of the existing xDSL-capable loop.⁵⁶⁸ Such a transition from line sharing to line splitting should occur subject only to charges consistent with the Commission’s cost methodology as articulated in the *Local Competition First Report and Order*.⁵⁶⁹

180. We disagree with WorldCom’s claim that Verizon’s OSS does not comply with our *Line Sharing Reconsideration Order* in other respects.⁵⁷⁰ The *Line Sharing Reconsideration Order* does not require Verizon to have implemented an electronic OSS functionality to permit line splitting. Rather, the Commission’s *Line Sharing Reconsideration Order* recognizes that a state-sponsored xDSL collaboratives is the appropriate place for Verizon to evaluate how best to develop this functionality.⁵⁷¹ For example, Verizon has represented that it is actively working on developing the OSS upgrades necessary to provide for electronic ordering of line-split services in the context of the New York Commission’s xDSL collaborative.⁵⁷² We recognize that Verizon has not, to date, implemented the OSS upgrades necessary to electronically process line-splitting orders in a manner that is minimally disruptive to existing voice customers; but that such functionality may require significant software upgrades and testing. It is undisputed that the

⁵⁶⁷ In the *Line Sharing Reconsideration Order*, the Commission held that “no central office wiring changes are necessary in a conversion from line sharing to line splitting.” *Line Sharing Reconsideration Order* at para. 22. Verizon suggests that when competitive LEC serve customers with existing voice service, they may order new unbundled xDSL-capable loops and UNE-P arrangements and then issue a disconnect of the existing voice service to provide line split services. See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 157. Disconnecting a customer’s currently-established voice service to enable the transition from line sharing to line splitting would require some disruption of dial tone and may require a change in the voice customers telephone number, a result that is inconsistent with our *Line Sharing Reconsideration Order*. See *Line Sharing Reconsideration Order* at para. 22.

⁵⁶⁸ *Line Sharing Reconsideration Order* at para. 22.

⁵⁶⁹ See *Local Competition First Report and Order*, 11 FCC Rcd at 15814-84, paras. 625-771. For example, we would expect Verizon to demonstrate why non-recurring charges in addition to those assessed when a competitive LEC orders a UNE-P arrangement are necessary. We cannot agree with Verizon when it states that “if Covad wants to engage in a line splitting arrangement with a voice [competing carrier], it may do so by working with the voice [competing carrier] to order the individual network elements” if such a process would impose unnecessary charges that are not cost-based or would otherwise require disruption of an end user’s voice service in the context of a migration from line sharing to line splitting. Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 159.

⁵⁷⁰ WorldCom Massachusetts II Comments at 27.

⁵⁷¹ *Line Sharing Reconsideration Order* at para. 22 n.41 (“We also encourage participants in state collaboratives and change management processes to develop specific ordering procedures associated with a variety” of line splitting scenarios.)

⁵⁷² Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at para. 157.

parties in the New York DSL collaborative commenced discussion of line splitting over a year ago; that in April 2000 Verizon formally posed numerous questions to competitors concerning their business rules for line splitting; and that in August 2000, competitive LECs submitted their initial detailed business rules to Verizon.⁵⁷³ Thus it appears that Verizon has the necessary information to implement the necessary OSS upgrades. Verizon has been able to provide its customers line-shared DSL service for approximately two years. Our *Line Sharing Reconsideration Order* is fulfilled by Verizon's adoption of an implementation schedule for line splitting as directed by the New York Commission that will afford competitors the same opportunities.

181. We note that in response to WorldCom's concerns, Verizon has agreed upon an implementation schedule to offer line splitting-specific OSS capabilities under the supervision of the New York Commission.⁵⁷⁴ In June of this year we expect that Verizon will conduct a preliminary OSS implementation in New York using new OSS functionality to add data service to an existing UNE-P customer. In October, Verizon has committed to implement, in the Verizon East territory including Massachusetts, the new OSS capability necessary to support migrations from line sharing to line splitting arrangements consistent with the business processes defined in the New York DSL collaborative.⁵⁷⁵ Consistent with their plans and with the guidance of the New York DSL collaborative, Verizon plans to offer OSS capability necessary to support UNE-P migrations to line splitting by October 2001.

V. OTHER CHECKLIST ITEMS

A. Checklist Item 1 – Interconnection

182. We conclude, as described below, that Verizon demonstrates that it provides equal-in-quality interconnection on terms and conditions that are just, reasonable, and nondiscriminatory in accordance with the requirements of sections 251(c)(2) and as specified in section 271 and applied in the Commission's prior orders.⁵⁷⁶ We further find that Verizon proves that it designs its interconnection facilities to meet “the same technical criteria and service standards’ that are used for the interoffice trunks within [its own] network.”⁵⁷⁷ We also find that Verizon makes interconnection available at any technically feasible point, including the option to interconnect at only one technically feasible point within a LATA,⁵⁷⁸ and that it is providing

⁵⁷³ See New York PSC, Order Granting Clarification, Granting Reconsideration in Part and Denying Reconsideration in Part and Adopting Schedule, Case 00-C-0127 (Issued and Effective January 29, 2001).

⁵⁷⁴ See Verizon Massachusetts II Reply at 30.

⁵⁷⁵ See Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 157.

⁵⁷⁶ See *SWBT Texas Order*, 15 FCC Rcd at 18379-81, paras. 61-64; *Bell Atlantic New York Order*, 15 FCC Rcd at 3977-86, paras. 63-76.

⁵⁷⁷ *SWBT Texas Order*, 15 FCC Rcd at 18380, para. 62 (quoting *Local Competition First Report and Order*, 11 FCC Rcd at 15613-15, paras. 221-25).

⁵⁷⁸ See *SWBT Texas Order*, 15 FCC Rcd at 18390, para. 78.

collocation in Massachusetts in accordance with the Commission's rules.⁵⁷⁹ We note that the Massachusetts Department found that Verizon has satisfied all aspects of this checklist item.⁵⁸⁰

1. Interconnection Trunking

183. Based on our review of the record, we are persuaded that Verizon provides competing carriers with interconnection trunking in Massachusetts that is equal in quality to the interconnection Verizon provides to its own retail operations, and on terms and conditions that are just, reasonable, and nondiscriminatory.⁵⁸¹ Verizon makes interconnection available in Massachusetts through interconnection agreements and through its state approved wholesale tariff.⁵⁸² Verizon receives orders for interconnection trunks through the Access Service Request (ASR) process, and accepts ASRs through an electronic application-to-application interface, its GUI and manual orders.⁵⁸³ Verizon provides affidavit evidence to demonstrate compliance with checklist item 1 in Massachusetts, as well as performance data to measure the quality of interconnection service provided to competing carriers.⁵⁸⁴ Several commenting parties raise concerns about interconnection trunking, and we address these issues below.

184. *Interconnection Quality.* We conclude that Verizon provides interconnection trunking to competitive LECs that is equal in quality to the interconnection Verizon provides to its own retail operations. Although the performance metric that we analyze to evaluate

⁵⁷⁹ See generally *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order on Reconsideration and Second Further Notice of Proposed Rulemaking in CC Docket No. 98-147 and Fifth Further Notice of Proposed Rulemaking in CC Docket No. 96-98, 15 FCC Rcd 17806 (2000), *recon. pending (Collocation Reconsideration Order)*.

⁵⁸⁰ See Massachusetts Department Massachusetts I Comments at 19-41; Massachusetts Department Massachusetts II Comments at 1.

⁵⁸¹ In the *Local Competition First Report and Order*, the Commission identified trunk group blockage and transmission standards as indicators of an incumbent LEC's technical criteria and service standards. See *Local Competition First Report and Order*, 11 FCC Rcd at 15614-15, paras. 224-25. In prior section 271 applications, the Commission concluded that disparities in trunk group blockage may indicate a failure to provide interconnection to competing carriers equal in quality to the interconnection the BOC provided to its own retail operations. See *SWBT Texas Order*, 15 FCC Rcd at 18380, para. 62.

⁵⁸² See Massachusetts Department Massachusetts I Comments at 20; D.T.E. Tariff No. 17.

⁵⁸³ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 8; see also Verizon Massachusetts II Application App. B, Vol. 1, Tab 1A at 18; CLEC Handbook, VOL. III, § 4.2.3.2.

⁵⁸⁴ See Verizon Massachusetts II Lacouture/Ruesterholz Decl. at paras. 37-38, 187; Verizon Massachusetts II Application App. B, Vol. 1, Tab 2. Verizon has implemented a number of performance measures relating to interconnection, including measures that compare blockage on Verizon common trunk groups with blockage on dedicated trunk groups serving competitive LECs (NP 1-01); measures that capture missed appointments for trunk installations (PR 4-01); and measures that provide data on average installation intervals (PR 2-09), and percent troubles within 30 days of installation (PR 6-01).

interconnection quality, Percent Final Trunk Group Blockage,⁵⁸⁵ demonstrates facial disparity between Verizon's performance for competitive LECs as compared to its own retail operations,⁵⁸⁶ we find, based on the totality of the circumstances, that such a disparity is not competitively significant.⁵⁸⁷

185. We reach this conclusion based on the following factors. First, the extent of call blocking for all trunks, including competitive LEC trunks, is low in absolute terms. The blocking standard employed by the carrier-to-carrier guidelines permits only one out of two hundred calls to be blocked during the busy hour, and the percentage of competitive LEC trunk groups exceeding this blocking standard is small. Specifically, in the aggregate, less than two percent⁵⁸⁸ of competitive LEC trunk groups exceeded the blocking standard due to insufficient trunking from September through December 2000. Stated another way, Verizon met the trunk blocking standard approximately 98 percent of the time during these four months. Moreover, the difference between the percentage of competitive LEC trunk groups and the percentage of Verizon trunk groups exceeding the blocking standard is also small, with a difference of only 1.64 percentage points between the competitive LEC and Verizon four-month averages for September through December 2000.⁵⁸⁹ Second, as discussed below, other data used to evaluate Verizon's

⁵⁸⁵ The metric NP 1-01, Percent Final Trunk Group Blockage, compares the proportion of dedicated final trunk groups carrying traffic from the Verizon access tandem to a competitive LEC that exceed the blocking design threshold (generally B.005) with the proportion of Verizon common final trunk groups carrying Verizon local traffic between offices that exceed this blocking threshold. *See* Verizon Massachusetts II Sapienza/Mulcahy Decl. Attach. A.

⁵⁸⁶ *See* NP 1-01 (Percent Final Trunk Groups Exceeding Blocking Standard). The percent of competitive LEC trunk groups exceeding the blocking standard was 1.43 percent, 2.14 percent, 4.21 percent (2.11 percent with adjustment), and 2.06 percent for September through December, respectively. *See infra* n.588. The portion of Verizon trunk groups exceeding the standard was 0.30 percent, 0.30 percent, 0.00 percent, and 0.60 percent for these months, respectively.

⁵⁸⁷ This review standard is consistent with the Commission's approach in previous section 271 orders. *See, e.g., Bell Atlantic New York Order*, 15 FCC Rcd at 3976, paras. 59-60 ("Finally, in some instances, we may find that statistically significant differences in measured performance may exist, but that such differences have little or no competitive significance in the marketplace. As such, we may deem such differences non-cognizable under the statutory standard.").

⁵⁸⁸ This calculation includes an adjusted figure of 2.11 percent for November. The percentage of competitive LEC trunk groups exceeding the blocking standard rose in November to 4.21 percent. Verizon has explained that this spike in the rate was due to a brief equipment failure that affected six of the twelve competitive LEC final trunk groups that exceeded the design threshold in November. Excluding those trunk groups, only six competitive LEC trunk groups exceeded the design threshold because of insufficient trunking, or 2.11 percent. *See* Letter from Dee May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 at 1 (filed March 27, 2001) (*Verizon March 27 Ex Parte Letter*).

⁵⁸⁹ This difference was calculated using the adjusted figure for November discussed *supra* n.588. The proportion of final trunk groups that were blocked due to insufficient trunking for the period September through December was 1.94 percent for dedicated competitive LEC interconnection trunk groups and 0.30 percent for Verizon common final trunk groups.

interconnection trunking performance demonstrate, on their face, that Verizon is providing interconnection in a manner that complies with this checklist item.⁵⁹⁰ Finally we note that no commenter has complained about trunk blockage in this proceeding.⁵⁹¹ If the rate of competitive LEC trunks exceeding the blocking standard were competitively significant, we would expect the commenting parties to address this issue, particularly when competitive LECs have been provided with carrier-specific data showing their individual rates for trunk groups exceeding the blocking standard.

186. *Interconnection Timeliness.* Other aspects of Verizon's performance data further indicate it is providing nondiscriminatory interconnection trunking in Massachusetts. In previous section 271 applications, the Commission has evaluated missed installation appointments and average installation intervals to gauge trunk provisioning timeliness.⁵⁹² Verizon demonstrates satisfactory performance in both of these areas in Massachusetts. Verizon's performance data concerning the percentage of missed installation appointments for provisioning of interconnection trunks show that, in recent months, Verizon's provisioning performance for competitors in Massachusetts was as good as that provided to interexchange carriers. In Massachusetts, from September to December 2000 in the aggregate, Verizon-caused missed trunk installations averaged 4.44 percent for competitive LECs, and 4.43 percent for interexchange carriers.⁵⁹³ These figures indicate that, in general, Verizon provided parity or better performance for competitive LECs in Massachusetts for trunk installations.

187. *Average Installation Intervals.* Verizon's performance data measuring the average time for installation of interconnection trunks in Massachusetts also show that Verizon's installation performance for competitors was as good as or better than that provided to interexchange carriers. For example, Verizon's performance data show that the average time to install interconnection trunks for competitive LECs for the months of September through December 2000 was 27 days, and 49 days for interexchange carriers.⁵⁹⁴

⁵⁹⁰ See *infra* paras. 186-192.

⁵⁹¹ RNK briefly notes that it has experienced inward trunk blockage, but supports Verizon's application for section 271 authorization in Massachusetts. See RNK Massachusetts I Comments at 2-3.

⁵⁹² Pursuant to the metrics approved by the Massachusetts Department, Verizon's interconnection trunking performance for competitive LECs is measured against its performance for interexchange carriers (except for trunk blockage, which is measured against Verizon common final trunks). See, e.g., Verizon Massachusetts II Application App. B, Vol. 1, Tab B, at 53, 82.

⁵⁹³ These four-month averages are weighted to reflect the number of trunk installation appointments each month. Verizon's rates of missed trunk installation appointments for competitive LECs in Massachusetts were 9.3 percent, 6.0 percent, 2.3 percent, and 0.0 percent for the months of September through December, respectively. Verizon's rates of missed trunk installation appointments for interexchange carriers were 12.0 percent, 7.0 percent, 2.9 percent, and 0.0 percent respectively for the same four months. See PR 4-01 (Percent Missed Appointments – Trunks).

⁵⁹⁴ See PR 2-09 (Average Completed Interval – Trunks). The average completed installation interval for trunks for competitive LECs for September was 27 days. There were no orders shown for this measure for competitive (continued....)

188. *Issues Raised by Commenting Parties.* CompTel, on behalf of ICG, and Winstar raise issues concerning Verizon's interconnection trunking performance. In particular, they have raised provisioning timeliness as an issue. Winstar also raises issues concerning service outages on interconnection trunks, and argues that the current performance data do not accurately reflect Verizon's performance.

189. Winstar alleges that Verizon caused ordering and provisioning delays and provided untimely or otherwise inadequate FOCs for interconnection trunks. We do not find these allegations persuasive. As an initial matter, we note that a number of the provisioning delays cited by Winstar appear to have occurred in the first half of 2000 or earlier.⁵⁹⁵ Accordingly, those contentions have little bearing on Verizon's performance in recent months and its current checklist compliance. Moreover, we find that those allegations, as well as Winstar's claims relating to more recent performance,⁵⁹⁶ are not supported by affidavit. Given the fact that Verizon's responses to these issues *are* supported by affidavit and are much more factually detailed, we find that Verizon satisfactorily refutes Winstar's claims.⁵⁹⁷ Winstar also cites to the provisioning delays raised by other carriers as evidence of endemic provisioning problems. Except for ICG's claims, as discussed below, other carriers' claims were only raised before the Massachusetts Department and not in this proceeding, and have now been resolved.⁵⁹⁸

190. ICG's allegations⁵⁹⁹ concerning delays in trunk provisioning likewise do not warrant a finding of noncompliance with checklist item 1. Verizon states that the trunks requested by ICG carry traffic from Verizon to ICG and that the number of trunks requested was not justified by existing or reasonably anticipated traffic,⁶⁰⁰ and that the existing trunks were

(Continued from previous page) _____

LECs for October through December. The average monthly installation intervals for interexchange carriers for September through December were approximately 54, 40, 21, and 66 days, respectively.

⁵⁹⁵ See Winstar Massachusetts I Comments at 4.

⁵⁹⁶ For example, Winstar raises issues concerning the provision of 64 Kbps Clear Channel interconnection trunks and two-way trunks.

⁵⁹⁷ See Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at paras. 12-13, 23; Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at paras. 25-29; Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 177, 180, 183-85.

⁵⁹⁸ Winstar also cites claims of trunk provisioning delays made by AT&T, NECLEC and RNK in the proceedings before the Massachusetts Department. AT&T has not raised these claims in its filings before the Commission in either the Massachusetts I or II Applications. See Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at para. 24. NECLEC and RNK both stated that they had experienced provisioning problems, but concluded that Verizon was making improvements and filed in support of the Massachusetts I Application. See NECLEC Massachusetts I Comments at 2; RNK Massachusetts I Comments at 2-3.

⁵⁹⁹ See CompTel Massachusetts I Comments at 15-18 and Attach. (Washington Affidavit).

⁶⁰⁰ Verizon states that ICG forecasted that Verizon should provision over 24,000 trunks to deliver traffic from Verizon to ICG (the equivalent of 120 trunks from Verizon to ICG for every one trunk from ICG to Verizon). Verizon further states that the number of trunks ICG requested amounts to nearly 8 percent of all the local interconnection trunks Verizon installed during the last four and a half years to serve all competitive LECs, and is (continued....)

under-utilized, with only a 33 percent overall utilization level.⁶⁰¹ We find the detailed information Verizon provided to support its explanation persuasive. Verizon states that the delays in the provisioning of entrance facilities cited by ICG were actually caused by ICG.⁶⁰² ICG provided no response to Verizon's explanations. In any event, to the extent that there may have been delays in the provisioning of interconnection trunks to ICG, this appears to have been an isolated situation rather than evidence of a widespread problem.⁶⁰³

191. Nor do Winstar's claims of service outages on interconnection trunks or maintenance and repair problems persuade us that Verizon is not currently in compliance with checklist item 1. The outage primarily relied on by Winstar in support of these contentions occurred in September 1999. Thus, it is not relevant to Verizon's recent or current performance for purposes of the instant proceeding. The other outages referred to by Winstar do not involve interconnection trunking provided by Verizon in Massachusetts.⁶⁰⁴ We also note that none of the other commenting parties raise concerns relating to service outages.

192. Winstar also alleges that Verizon engages in practices designed to distort the performance data and conceal its poor provisioning and maintenance and repair of interconnection trunking.⁶⁰⁵ These claims by Winstar are not supported by affidavits, and, based on the current record, we are unable to determine the extent to which Winstar's claims are true.⁶⁰⁶ We also note that no other carrier raises similar claims in this proceeding. We emphasize that, as an initial matter, competitive LECs should raise issues such as this concerning the performance metrics in the relevant state proceedings where they can be investigated and properly addressed. Further, in the future, if competitive LECs allege that poor performance is not being captured by the state-approved performance measures, then competitive LECs should provide evidence, such as reliable performance data, along with a showing of why the BOC is responsible for the performance.⁶⁰⁷

(Continued from previous page) _____

more trunks than Verizon typically installs for all competitive LECs in a two-month period. *See* Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at paras. 27-31.

⁶⁰¹ *See* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 36-45.

⁶⁰² *See* Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at paras. 42-44.

⁶⁰³ The record does not contain persuasive evidence of significant ongoing trunk provisioning delays. An isolated example of poor performance by a BOC, absent special circumstances, does not warrant denial of a section 271 application if the performance data do not indicate a broader problem. *See, e.g., SWBT Kansas/Oklahoma Order* at para. 138.

⁶⁰⁴ *See* Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 174-75.

⁶⁰⁵ *See* Winstar Massachusetts II Reply at 4-13.

⁶⁰⁶ *See* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 22; Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at para. 33.

⁶⁰⁷ *See SWBT Texas Order*, 15 FCC Rcd at 18383-84, para. 69.

193. Finally, we reject the contentions of Winstar, CompTel and Global Crossing involving the provision of interexchange access services. The Commission has held in prior orders that checklist compliance is not intended to encompass the provision of these services.⁶⁰⁸

2. Collocation

194. Verizon demonstrates that its collocation offerings in Massachusetts satisfy the requirements of sections 251 and 271 of the Act. Verizon provides physical and virtual collocation through state-approved tariffs. Verizon's Massachusetts physical and virtual collocation tariffs are virtually identical to the New York physical and virtual collocation tariffs, which the Commission found to satisfy checklist item 1 in the *Bell Atlantic New York Order*.⁶⁰⁹ In its application, Verizon states that shared, cageless, and adjacent collocation options are available in Massachusetts, and that it has taken other steps necessary to implement the collocation requirements contained in the *Advanced Services First Report and Order* and the *Collocation Reconsideration Order*.⁶¹⁰

195. Verizon's collocation performance data generally indicate that Verizon processed collocation requests and provisioned collocation arrangements in accordance with the time frames established by the Massachusetts Department.⁶¹¹ Verizon's performance data show 100 percent on-time responses to requests for physical and virtual collocation for the period September through December 2000.⁶¹² Although Verizon's performance data for average on-time completion for both new and augmented orders of physical collocation demonstrate some facial disparities, when adjusted for the time lost during the August strike, Verizon's performance is at

⁶⁰⁸ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4126-27, para. 340; *SWBT Texas Order*, 15 FCC Rcd at 18520, para. 335. The provisioning of special access services is not relevant for the purposes of determining section 271 checklist compliance. Therefore, although Winstar, Global Crossing, and CompTel filed comments alleging Verizon's inadequate performance in providing special access, this is not a factor in determining Verizon's compliance with checklist item 1. See Winstar Massachusetts I Comments at 12; Global Crossing Massachusetts I Comments at 2-5; CompTel Massachusetts I Comments at 2-3.

⁶⁰⁹ See Verizon Massachusetts I Application at 12, 14. Verizon states that it has provided 1,700 collocation arrangements in central offices that serve 96 percent of Verizon's business access lines and 94.5 percent of its residential lines in Massachusetts. See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 34; Verizon Massachusetts II Reply at 44.

⁶¹⁰ See Verizon Massachusetts I Application at 14, n.16; Verizon Massachusetts I Reply at 31-32; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 (1999) (*Advanced Services First Report and Order*), *aff'd in part and remanded in part sub nom. GTE Service Corp. v. FCC*, 205 F.3d 416 (D.C. Cir. 2000), *on recon.*, *Collocation Reconsideration Order*, 15 FCC Rcd at 17806.

⁶¹¹ The timeframe is generally 76 business days. This time period can be extended up to 15 days in the case of complex orders. See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 37.

⁶¹² See NP 2-01; Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. Attach. A.

or near the established benchmarks.⁶¹³ We conclude that this overall level of on-time performance for completion of physical collocation arrangements satisfies Verizon's section 271 obligations and allows an efficient competitor a meaningful opportunity to compete.

196. Contrary to the assertions made by ALTS,⁶¹⁴ we conclude that Verizon has demonstrated that it has a concrete and specific legal obligation to provide remote terminal collocation consistent with the *UNE Remand Order*.⁶¹⁵ We are also not persuaded by Rhythms' and ALTS' contentions⁶¹⁶ that Verizon attempts to limit the Remote Terminal Equipment Enclosures (RTEEs) at which it will provide remote terminal collocation through its definition of RTEEs.⁶¹⁷ In particular, we accept Verizon's explanation that the definition of RTEEs is intended to expand the remote locations encompassed by the definition, not limit them.⁶¹⁸ We also conclude that Verizon is not required to permit in-place conversion of virtual to physical

⁶¹³ We find that the adjustments made by Verizon to account for the August strike are reasonable, and that the adjusted data present a more accurate picture of Verizon's performance in this area. The data were adjusted by extending the due dates for collocation arrangements by fifteen business days to offset the time lost during the strike. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 182. The adjustment here is very simple and does not involve complex statistical adjustments that are difficult to verify and analyze.

In the case of new orders for physical collocation, the strike-adjusted data show an average 95.18 percent on-time completion rate for new physical collocation requests for the period September to November 2000. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. Attach. UU at 3. The strike-adjusted data also show an average rate of 90.64 percent on-time completions for physical collocation augmentations for the period September to November 2000. *See id.* Strike-adjusted data for December show an on-time completion rate of 100 percent for new physical collocation arrangements and an on-time completion rate of 98.7 percent for augmentations. *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at 71. The data for January 2001 show a return to pre-strike performance, with Verizon completing 95 percent of new physical collocation arrangements on time and 95.52 percent of augments on time, without any adjustment. *See id.* at para. 187.

⁶¹⁴ *See* ALTS Massachusetts I Comments at 16-17.

⁶¹⁵ *See* Verizon Massachusetts I Reply at 31-32; Verizon Massachusetts II Lacouture/Ruesterholz Decl. at 16.

⁶¹⁶ *See* Rhythms Massachusetts I Comments at 12; ALTS Massachusetts I Comments at 16-17.

⁶¹⁷ *See* Verizon Massachusetts I Application at 14-15 n.16.

⁶¹⁸ Verizon specifically states that Rhythms' concern "that the CRTEE tariff precludes [competing LECs] from collocating in manholes or other non-building structures reflects a misinterpretation of the tariff." Verizon Massachusetts I Reply at 32 n.43. Verizon's remote collocation tariff states that a CRTEE "provides an arrangement in which [competing LEC] equipment can be placed in Telephone Company remote terminal equipment enclosures (RTEEs)." D.T.E. Tariff No. 17, Part E, Section 11.1.1.A.1.1.A. The language complained of by Rhythms merely expands the scope of the offering to additional enclosures not owned by Verizon. As Verizon states, "[a]lthough the tariff indicates that remote equipment enclosures *include* enclosures that are 'in buildings' not owned by Verizon, it does not limit remote collocation to *only* such 'in-building' structures." Verizon Massachusetts I Reply at 32 n.43 (emphasis in original). Moreover, Verizon states "that [competing] LECs are free to remotely collocate in non-building structures as well where space is available." *Id.*; Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 139.

collocation in Massachusetts for purposes of section 271⁶¹⁹ despite the contentions of Rhythms and ALTS.⁶²⁰ Nor do we believe that the concern raised by ALTS about the ability of competitive LECs to obtain POTS lines in their collocation cages raises issues of section 271 compliance.⁶²¹

3. Technically Feasible Points of Interconnection

197. We conclude that Verizon provides interconnection at all technically feasible points, including a single point of interconnection,⁶²² and therefore demonstrates compliance with the checklist item. Verizon demonstrates that it has state-approved interconnection agreements that set forth readily available points of interconnection, and provide a process for competitive LECs to request interconnection at additional, technically feasible points.⁶²³ Verizon further shows that, for purposes of interconnection to exchange local traffic, a competitive LEC may choose a single, technically feasible point of interconnection within a LATA.⁶²⁴ In addition, the Verizon revised Massachusetts Collocation Tariff complies with Commission rules by allowing competing carriers to choose a single technically feasible point.⁶²⁵

4. Pricing of Interconnection

198. Checklist item 1 requires a BOC to provide “interconnection in accordance with the requirements of sections 251(c)(2) and 252(d)(1).”⁶²⁶ Section 251(c)(2) requires incumbent

⁶¹⁹ Neither the Commission’s collocation rules nor the requirements adopted by Massachusetts require in-place conversion from virtual to physical collocation. *See* Verizon Massachusetts I Reply at 30-31.

⁶²⁰ *See* Rhythms Massachusetts I Comments at 15-18; ALTS Massachusetts I Comments at 14-16.

⁶²¹ *See* ALTS Massachusetts I Comments Attach. (Landers Decl.) at 7 (stating that competitive LECs may want POTS lines in their collocation space to facilitate communications by their technicians since Verizon bars the use of mobile telephones in these areas).

⁶²² *See* Verizon Massachusetts I Application at 12; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 8, 258 (describing available points of access to each of Verizon’s standard methods of interconnection).

⁶²³ *See* Verizon Massachusetts I Application, App. J, Tab 22, Attach. IV at IV-2 (*Interconnection Agreement Dated as of September 28, 1998 by and between New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts and MCImetro*). The agreement defines “technically feasible” point as described in the FCC Rules and regulation. *Id.* Part B at B-13. It also states that [Verizon] “will interconnect with MCIm at any technically feasible point.” *Id.* Attach. IV at IV-2.

⁶²⁴ Any competing LEC may request the same terms and conditions as those contained in existing interconnection agreements which allow interconnection at only one technically feasible point within a LATA. For example, Qwest based its interconnection agreement of March 19, 1999 on MCImetro’s agreement with Verizon. *See* Verizon Massachusetts I Application, App. J, Tab 37 (*Interconnection Agreement Dated as of March 19, 1999 by and between New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts and Qwest Communications Company*).

⁶²⁵ *See* Verizon Massachusetts II Lacouture/Ruesterholz Decl. at para. 139.

⁶²⁶ 47 U.S.C. § 271(c)(2)(B)(i).

LECs to provide interconnection “at any technically feasible point within the carrier’s network . . . on rates, terms, and conditions that are just, reasonable, and nondiscriminatory.”⁶²⁷ Section 252(d)(1) requires state determinations regarding the rates, terms, and conditions of interconnection to be based on cost and to be nondiscriminatory, and allows the rates to include a reasonable profit.⁶²⁸ The Commission’s pricing rules require, among other things, that in order to comply with its collocation obligations, an incumbent LEC provide collocation based on TELRIC.⁶²⁹

199. Based on the evidence in the record, we find that Verizon offers interconnection in Massachusetts to other telecommunications carriers at just, reasonable, and nondiscriminatory rates, in compliance with checklist item 1. The Massachusetts Department concludes that Verizon currently provides collocation under approved interconnection agreements and tariffs, consistent with Commission and Massachusetts Department orders.⁶³⁰

200. We find that the collocation pricing issues raised by commenters that are currently before the Massachusetts Department do not cause Verizon to fail this checklist item. First, commenters contend that Verizon improperly charges for the number of amps fused, rather than the number of drained amps actually requested and used by competitive LECs.⁶³¹ Prior to refileing its Massachusetts II Application with the Commission, Verizon amended its tariff to apply collocation power charges on a per-load amp requested basis, rather than on a per-fused amp basis.⁶³² AT&T and Covad filed a petition with the Massachusetts Department requesting an investigation of this tariff revision.⁶³³ When the Massachusetts Department declined to investigate the tariff revision, the parties filed a reconsideration motion, asserting that Verizon is improperly

⁶²⁷ *Id.* § 251(c)(2).

⁶²⁸ *Id.* § 252(d)(1).

⁶²⁹ See 47 C.F.R. §§ 51.501-07, 51.509(g); *Local Competition First Report and Order*, 11 FCC Rcd at 15812-16, 15844-61, 15874-76, 15912, paras. 618-29, 674-712, 743-51, 826.

⁶³⁰ Massachusetts Department Massachusetts I Comments at 35-37.

⁶³¹ See ALTS Massachusetts I Comments at 14, 18-20; Covad Massachusetts I Comments at 44-47; Rhythms Massachusetts I Comments at 18-20; Rhythms Massachusetts I Reply at 8-9; ALTS Massachusetts II Comments at 6, 11-14; Covad Massachusetts II Comments at 36-39.

⁶³² See Verizon Massachusetts II Application App. B, Vol. 3, Tab 3, Subtab M, Letter from Robert Mudge, President-Massachusetts, Verizon, to Department of Telecommunications & Energy (Jan. 12, 2001) (Verizon January 12th Tariff Revision).

⁶³³ See Letter from Charles E. Griffin, Government Affairs Director, AT&T, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 29, 2001) (AT&T March 29 Collocation *Ex Parte* Letter) at Attach. 2 (*Petition of AT&T Communications of New England, Inc. and Covad Communications Company to Investigate Certain Provisions of January 12, 2001 Tariff Filing and Suspend and Investigate Certain Other Provisions*, DTE 98-57 (Feb. 1, 2001)) (*AT&T/Covad Tariff Suspension Request Ex Parte*).

charging them on a per-fused amp basis.⁶³⁴ In its response to the Massachusetts Department, Verizon responds that its tariff revision addresses these parties' concerns by charging them on a per-load amp basis and that such tariff revision will lead to a decrease in power charges.⁶³⁵

201. Second, commenters assert that Verizon is improperly charging competitive LECs for collocation power by assessing an additional power charge for each redundant feed requested by the competitive LEC.⁶³⁶ According to these commenters, a redundant feed runs only between the power distribution bay and the competitive LEC's collocation point. They assert that Verizon is charging an additional power charge that recovers the cost of every piece of equipment in the collocation power configuration, regardless of whether or not it is utilized for the redundant feed.⁶³⁷ ALTS contends that most competitive LECs configure their equipment to use either the A or B feed as the power source, but not both. Verizon should not charge the full amount for power for both the main and redundant feeds because the backup feed is only used when the original feed fails.⁶³⁸ According to the commenters, competitive LECs would use only the amount of amps requested to operate their equipment, and not double that amount simply because they have back-up feeds. AT&T and Covad also raise this issue in their tariff investigation reconsideration motion before the Massachusetts Department.⁶³⁹

202. Verizon responds that it provides competitive LECs with a means of purchasing only the power they want. Verizon disputes ALTS' assertion that most competitive LECs configure their equipment to use either the A or B feed, but not both.⁶⁴⁰ Verizon contends that most competitive LECs have collocation equipment that is designed to draw power from two feeds simultaneously.⁶⁴¹ To support this statement, Verizon asserts that it surveyed over 1,000 power feeds at collocation arrangements in Massachusetts and found that over 97 percent of them

⁶³⁴ See AT&T March 29 Collocation *Ex Parte* Letter at Attach. 4 (*Motion of AT&T Communications of New England, Inc. and Covad Communications Company for Reconsideration and for Extension of the Judicial Appeal Period*, DTE 98-57 (March 7, 2001)) (*AT&T/Covad Tariff Reconsideration Motion Ex Parte*).

⁶³⁵ See Letter from Dee May, Executive Director, Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 (filed March 28, 2001) (Verizon March 28 Collocation *Ex Parte* Letter) at Attach. 1 (*Opposition of Verizon Massachusetts*, DTE 98-57 (March 15, 2001)) (*Verizon Tariff Opposition Ex Parte*).

⁶³⁶ See ALTS Massachusetts I Comments at 14, 18-19; Covad Massachusetts I Comments at 44-47; Rhythms Massachusetts I Comments at 19; Rhythms Massachusetts I Reply at 8-9; ALTS Massachusetts II Comments at 11-13; Covad Massachusetts II Comments at 36-37.

⁶³⁷ See Covad Massachusetts I Comments at 46-47.

⁶³⁸ See ALTS Massachusetts II Comments at 12.

⁶³⁹ *AT&T/Covad Tariff Reconsideration Motion Ex Parte* at 7.

⁶⁴⁰ Verizon Massachusetts II Reply at 45; see also Verizon March 28 Collocation *Ex Parte* Letter at Attach. 2, *Answer of Verizon Massachusetts*, DTE 98-57 at 8-11 (March 15, 2001) (*Verizon Tariff Reconsideration Answer Ex Parte*).

⁶⁴¹ See Verizon Massachusetts II Reply at 45.

were drawing power on both feeds.⁶⁴² Verizon also asserts that it does not require competitive LECs to take a second backup feed, nor does it specify the load that a competitive LEC must place on a given feed.⁶⁴³ If, for instance, a competitive LEC has a piece of equipment that draws 40 amps and wants to order and pay for only 40 amps of power, Verizon asserts that it can order two power feeds with 20 load amps on each feed.⁶⁴⁴

203. These disputes are currently before the Massachusetts Department. As we noted in the *SWBT Texas Order*, the Act authorizes the state commissions to resolve specific carrier-to-carrier disputes arising under the local competition provisions, and it authorizes the federal district courts to ensure that the results of the state arbitration process are consistent with federal law.⁶⁴⁵ Although we have an independent obligation to ensure compliance with the checklist, section 271 does not compel us to preempt the orderly disposition of intercarrier disputes by the state commissions, particularly now that the Supreme Court has restored our pricing jurisdiction and has thereby directed the state commissions to follow our pricing rules in their disposition of those disputes. Here, we have confidence in the Massachusetts Department's ability to resolve these matters consistent with our rules. Verizon amended its collocation tariff in January 12, 2001 to address the concerns of the parties, and parties have presented no evidence that Verizon is not fully cooperating with the efforts of the Massachusetts Department to resolve these issues. We note that progress is being made in this regard.⁶⁴⁶ We therefore find that these disputes do not cause Verizon to fail this checklist item.

204. We are not persuaded by ALTS' assertion that Verizon charges more for power in its Massachusetts tariff for cageless collocation than it charges for power in its federal tariff, in which there is no cageless collocation offering.⁶⁴⁷ According to ALTS, there is no cost justification for the difference in collocation power charges.⁶⁴⁸ Verizon claims that its federal power rate is based on outdated information from 1991 and greatly understates its power costs. Differences between the federal tariff and the state tariff are not enough, by themselves, to support a finding that the state tariff is unlawful. The power rates in the Massachusetts tariff are

⁶⁴² See *id.*

⁶⁴³ See *id.*; see also *Verizon Tariff Reconsideration Answer Ex Parte* at 8-12.

⁶⁴⁴ See *Verizon Massachusetts II Reply* at 45.

⁶⁴⁵ See *SWBT Texas Order*, 15 FCC Rcd at 18541, para. 383; see also 47 U.S.C. §§ 252(c), (e)(6); *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

⁶⁴⁶ See Letter from Kenneth Rust, Director, Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-09 at 1-2 (filed April 3, 2001) (*Verizon April 3 Collocation Ex Parte Letter*) (*Verizon letter informing competitive LECs of new methods for billing power in collocation arrangements in New York and Massachusetts. Verizon now bills competitive LECs for collocation power on the basis of the total number of load amps requested, on a per-load-amp basis, and permits competitive LECs to request a fuse size of up to 2.5 times the load amp requested.*).

⁶⁴⁷ See *ALTS Massachusetts II Comments* at 14.

⁶⁴⁸ See *id.*

based on more recent cost studies and have been approved by the Massachusetts Department, and we find no basis for rejecting them.⁶⁴⁹

B. Checklist Item 3 – Poles, Ducts, Conduits and Rights of Way

1. Background

205. Section 271(c)(2)(B)(iii) requires BOCs to provide “[n]ondiscriminatory access to the poles, ducts, conduits, and rights-of-way owned or controlled by the [BOC] at just and reasonable rates in accordance with the requirements of section 224.”⁶⁵⁰ Section 224(b)(1) states that the Commission shall regulate the rates, terms, and conditions governing pole attachments to ensure that they are “just and reasonable.”⁶⁵¹ Notwithstanding this general grant of authority, section 224(c)(1) states that where such matters are regulated by a state nothing in the section shall be construed to apply to, or to give the Commission jurisdiction with respect to the rates, terms, and conditions, or access to poles, ducts, conduits and rights-of-way.⁶⁵² Massachusetts has certified to this Commission that it regulates the rates, terms, and conditions for pole attachments in that state.⁶⁵³

2. Discussion

206. Based on the evidence in the record, we conclude, as the Massachusetts Department does,⁶⁵⁴ that Verizon demonstrates that it provides nondiscriminatory access to its

⁶⁴⁹ See Verizon Massachusetts II Reply at 45; see also ALTS Massachusetts II Comments at Ex. B.

⁶⁵⁰ 47 U.S.C. § 271(c)(2)(B)(iii). As originally enacted, section 224 was intended to address obstacles that cable operators encountered in obtaining access to poles, ducts, conduits, or rights-of-way owned or controlled by utilities. The 1996 Act amended section 224 in several important respects to ensure that telecommunications carriers as well as cable operators have access to poles, ducts, conduits, or rights-of-way owned or controlled by utility companies, including LECs. See *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20706, para. 171 n.574.

⁶⁵¹ 47 U.S.C. § 224(b)(1).

⁶⁵² 47 U.S.C. § 224(c)(1). The 1996 Act extended the Commission’s authority to include not just rates, terms, and conditions, but also the authority to regulate nondiscriminatory access to poles, ducts, conduits, and rights-of-way. See *Local Competition First Report and Order*, 11 FCC Rcd at 16104, para. 1232; 47 U.S.C. § 224(f). Absent state regulation of terms and conditions of nondiscriminatory attachment access, the Commission retains jurisdiction. See *Local Competition First Report and Order*, 11 FCC Rcd at 16104, para. 1232; 47 U.S.C. § 224(c)(1); see also *Bell Atlantic New York Order*, 15 FCC Rcd at 4093, para. 264.

⁶⁵³ See *States That Have Certified That They Regulate Pole Attachments*, Public Notice, 7 FCC Rcd 1498 (1992); Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket No. 95-185, Order on Reconsideration, 14 FCC Rcd at 18089, para. 115 (1999) (stating that “[o]ur rule does not require . . . [previously certified] . . . states to formally re-certify in order to assert their jurisdiction over access); 47 U.S.C. § 224(c).

⁶⁵⁴ See Massachusetts Department Massachusetts I Comments at 223-49; Massachusetts Department Massachusetts I Reply at 54-61.

poles, ducts, conduits, and rights-of-way at just and reasonable rates in accordance with section 271(c)(2)(B)(iii).⁶⁵⁵ We reject commenters' requests to find that Verizon's pole attachment policies and practices in Massachusetts are discriminatory.⁶⁵⁶ As we explain above, the Massachusetts Department is certified by this Commission to regulate pole attachments in that state. The Massachusetts Department has established a process for complaints of discriminatory access to poles.⁶⁵⁷ Therefore, any claim regarding discriminatory access to poles is a matter for the Massachusetts Department to consider.⁶⁵⁸ The record does not indicate that anyone, including any of the commenters, has filed a discriminatory access complaint with the Massachusetts Department.⁶⁵⁹

C. Checklist Item 5 – Unbundled Local Transport

207. Section 271(c)(2)(B)(v) of the competitive checklist requires a BOC to provide “[l]ocal transport from the trunk side of a wireline local exchange carrier switch unbundled from switching or other services.”⁶⁶⁰ The Commission has required that BOCs provide both dedicated and shared transport to requesting carriers.⁶⁶¹ Dedicated transport consists of BOC transmission facilities dedicated to a particular customer or carrier that provide telecommunications between wire centers owned by BOCs or requesting telecommunications carriers, or between switches owned by BOCs or requesting telecommunications carriers.⁶⁶² Shared transport consists of transmission facilities shared by more than one carrier, including the BOC, between end office

⁶⁵⁵ Verizon Massachusetts I Application at 34-35; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 187-202; Verizon Massachusetts I Lacouture/Ruesterholz Reply Decl. at paras. 151-66; Verizon Massachusetts II Lacouture/Ruesterholz Reply Decl. at paras. 201-03.

⁶⁵⁶ See RCN Massachusetts I Comments; RCN Massachusetts I Reply; RCN Massachusetts I Supplementary Reply; RCN Massachusetts II Comments; Fiber Technologies Massachusetts I Comments at 5; Fiber Technologies Massachusetts I Reply at 7; ALTS Massachusetts I Comments 43-48; Massachusetts Attorney General Massachusetts I Comments at 6-7.

⁶⁵⁷ Massachusetts Department Massachusetts I Comments at 224-25.

⁶⁵⁸ See 47 U.S.C. § 224(c); see also Verizon Massachusetts I Reply at 39-40.

⁶⁵⁹ See Massachusetts Department Massachusetts I Comments at 224. Although we recognize that commenters raised these claims in the section 271 proceeding before the Massachusetts Department, the record does not indicate that such claims were also raised through the complaint and enforcement process established by the Massachusetts Department. The Massachusetts Department concluded that, based upon the evidence presented in its section 271 proceeding, Verizon is providing nondiscriminatory access to its poles. See Massachusetts Department Massachusetts I Comments at 249. The Department further noted, however, that its “rules permit any party to raise claims of discriminatory treatment” and that its findings in the context of the section 271 proceeding “shall in no way be considered precedential in any proceedings” under its rules. *Id.*

⁶⁶⁰ 47 U.S.C. § 271(c)(2)(B)(v).

⁶⁶¹ See *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20719, para. 201.

⁶⁶² See, e.g., *id.*; *SWBT Texas Order*, 15 FCC Rcd at 18518, para. 331 n.920.

switches, between end office switches and tandem switches, and between tandem switches, in the BOC's network.⁶⁶³

208. We conclude, based upon the evidence in the record, that Verizon demonstrates that it provides both shared and dedicated transport in compliance with the requirements of checklist item 5.⁶⁶⁴ The Massachusetts Department also finds that Verizon is in compliance with this checklist item.⁶⁶⁵

209. In prior orders the Commission has reviewed the missed appointment rates for the provision of interoffice facilities to competitive LECs to determine compliance with checklist item 5.⁶⁶⁶ On first examination, the carrier-to-carrier missed appointment rate performance appears to depict a significant difference in the provision of interoffice facilities for competitive LECs compared to the retail analogue described in the carrier-to-carrier guidelines in place prior to January 2001.⁶⁶⁷ We place little weight on this performance disparity, however, given the revised retail analogue developed by the carrier-to-carrier working group and adopted by the New York Commission and Massachusetts Department in December 2000, which paints a more accurate picture of Verizon's transport provisioning performance. As explained below, when Verizon's provision of unbundled transport is compared to the revised retail analogue, its performance is better for competing LECs than it is for its own retail customers.

210. Under the carrier-to-carrier guidelines in place prior to January 2001 for the missed appointments metric, the provisioning of competitive LEC interoffice facility transport was compared to Verizon's provisioning of retail "special services."⁶⁶⁸ According to Verizon, retail

⁶⁶³ See, e.g., *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20719-20, para. 201 nn.650 & 652.

⁶⁶⁴ See Verizon Massachusetts I Application at 30; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 159-66 & App. B; Verizon Massachusetts II Reply at 38.

⁶⁶⁵ See Massachusetts Department Massachusetts I Comments at 338-39.

⁶⁶⁶ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4126, para. 339; *SWBT Texas Order*, 15 FCC Rcd at 1851, para. 333.

⁶⁶⁷ Using the carrier-to-carrier numbers provided with the application, the four month (September through December 2000) average for competitive LECs was 12.1 percent, compared to 2.1 percent for Verizon's retail "special services" provisioning. See PR-4-01 (Provisioning of POTS/Special Services - Missed Appointments). Specifically, the competitive LEC missed appointment rates for September through December 2000 were 10.71 percent, 2.76 percent, 15.21 percent, and 21.25 percent, respectively. Verizon's performance for its own retail special services for the same period was 2.78 percent, 1.90 percent, 1.43 percent, and 2.04 percent, respectively.

⁶⁶⁸ Letter from Dolores A. May, Executive Director Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, Federal Communications Commission (March 29, 2001) (Verizon March 29 *Ex Parte* Letter) at 1; Verizon Massachusetts I Guerard/Canny Decl. Attach. B at 49. "Special services" are services that require engineering design intervention. Verizon Massachusetts I Guerard/Canny Decl. Attach. B at 101. These include such services as primary rate ISDN, 4 wire xDSL services, digital services, private line or foreign served services, as well as high capacity services such as DS-1 and DS-3 circuits. See *id.*

special services are “predominately at the voice grade level.”⁶⁶⁹ The carrier-to-carrier working group⁶⁷⁰ agreed to change the guidelines as of January 2001, however, to reflect a revised retail analogue for this performance measure using provisioning of retail DS-3s instead of retail special services because the unbundled interoffice facilities Verizon provides to competitive LECs are predominately at the DS-3 level, rather than the voice grade level.⁶⁷¹ We find that the revised retail analogue appears to be more appropriate and represents a better indicator of whether Verizon is providing the same quality of service to competitive LECs as to its own customers for transport than the comparison in place prior to January 2001.⁶⁷³ We further find that the missed appointment data, using the revised carrier-to-carrier retail analogue, provides sufficient evidence that Verizon is providing unbundled transport to competitive LECs in a nondiscriminatory manner.⁶⁷⁴

211. We reject OnSite’s assertion that Verizon has repeatedly failed to provide transport circuits in violation of checklist item 5⁶⁷⁵ because the record indicates OnSite orders the

⁶⁶⁹ *Id.*

⁶⁷⁰ The carrier-to-carrier working group is an industry group, comprised of Verizon and all interested competitive LECs, that addresses the performance measures that should apply to the provision of service to competitive LECs and the appropriate performance standards associated with those measures. *See* Verizon Massachusetts I Application Guerard/Canny Decl. at 5.

⁶⁷¹ *See id.*; *see* Verizon Massachusetts II Application App. B, Tab 1B, at 53 (reflecting new retail analogue).

⁶⁷³ Using the revised DS-3 retail analogue, Verizon missed about 63 percent, 25 percent, 43 percent, and 40 percent of its retail DS-3 appointments in September through December, respectively. *See id.* at 2. Because the number of orders for each of these months are relatively small -- ranging between 10 and 27 orders per month -- we rely on an average of those four months in reaching our finding. The average rate over the four-month period was 47.62 percent. This compares favorably with the four month average of the missed appointment rate for provisioning unbundled transport to competitive LECs, which was 12.13 percent.

⁶⁷⁴ Although the carrier-to-carrier collaborative chose DS-3s as the retail analogue, it might have chosen to combine the missed appointment rate for DS-1s and DS-3s because both are used by competitive LECs for transport. Using both DS-1s and DS-3s, Verizon missed appointments for its retail customers about 12.33 percent on average for September through December, which compares favorably with the average missed appointment rate for providing competitive LECs with unbundled local transport for the same period: 12.13 percent. *See* Verizon March 29 *Ex Parte* Letter at 2. This analysis gives us additional confidence in our conclusion.

⁶⁷⁵ *See* OnSite Massachusetts I Comments at 20-21 & Kriss Decl. at 2-6; *see also* Global Crossing Massachusetts II Comments at 3-5 (complaining of poor special access provisioning); CompTel Massachusetts II Comments at 3 (same). We discuss the Commission’s oversight of the provision of special access in our discussion of section 272 below. *See infra* Part VII.B.2.

those circuits out of Verizon's special access tariff.⁶⁷⁶ The Commission previously determined in the *Bell Atlantic New York Order* that checklist compliance is not intended to encompass provision of tariffed interstate services simply because these services use some of the same physical facilities as a checklist item.⁶⁷⁷ We note, however, that to the extent parties are experiencing delays in the provisioning of special access services ordered from Verizon's federal tariffs, these issues are appropriately addressed in the Commission's section 208 complaint process.

212. We also disagree with Digital Broadband's assertions that Verizon has failed to satisfy checklist item 5. Through comments filed by ALTS, Digital Broadband states that it has experienced difficulties with ordering and provisioning DS-3s during April through September 2000. Specifically, Digital Broadband complains about orders not completed by the committed due date, repeated postponements of the committed due dates and newly installed circuits that do not function properly.⁶⁷⁸ Even though Digital Broadband may have experienced some problems during that time period, performance data from that period have little bearing on Verizon's performance in recent months and, consequently, its current checklist compliance. Moreover, no commenter complains of *recent* problems with ordering or provisioning of unbundled transport.

D. Checklist Item 13 – Reciprocal Compensation

213. Section 271(c)(2)(B)(xiii) of the Act requires that a BOC enter into “[r]eciprocal compensation arrangements in accordance with the requirements of section 252(d)(2).”⁶⁷⁹ In turn, pursuant to section 252(d)(2)(A), “a state commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless (i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier; and (ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.”⁶⁸⁰

214. Based on the evidence in the record, we conclude that Verizon demonstrates that it has entered into reciprocal compensation arrangements in accordance with the requirements of section 252(d)(2), and thus satisfies the requirements of checklist item 13. Verizon demonstrates that it: (1) has in place reciprocal compensation arrangements in accordance with section

⁶⁷⁶ See Verizon Massachusetts I Reply at 54.

⁶⁷⁷ See *Bell Atlantic New York Order*, 15 FCC Rcd 4126-27, para. 340.

⁶⁷⁸ See ALTS Massachusetts I Comments at 29 & Landers Decl. at para. 12; see also Digital Broadband Massachusetts I Reply at 8-10. Digital Broadband also complains about orders that were incorrectly recorded as ticketed as “customer not ready.”

⁶⁷⁹ 47 U.S.C. § 271(c)(2)(B)(xiii).

⁶⁸⁰ *Id.* § 252(d)(2)(A).

252(d)(2),⁶⁸¹ and (2) is making all required payments in a timely fashion.⁶⁸² The Massachusetts Department has concluded that Verizon complies with the reciprocal compensation requirements in checklist item 13.⁶⁸³

215. Several commenters allege that Verizon is failing to pay reciprocal compensation for ISP-bound traffic.⁶⁸⁴ We find that the issues raised by the commenters do not evidence Verizon's failure to satisfy checklist item 13. Under a prior Commission order, ISP-bound traffic is not subject to the reciprocal compensation provisions of section 251(b)(5) and 252(d)(2),⁶⁸⁵ therefore, as the Commission stated in the *Bell Atlantic New York Order*, whether a carrier pays such compensation is "irrelevant to checklist item 13."⁶⁸⁶ The United States Court of Appeals for the District of Columbia Circuit vacated and remanded the Commission's order, and the Commission is now reconsidering the matter.⁶⁸⁷ Given that the Commission has not yet determined the status of ISP-bound traffic, refusal to pay reciprocal compensation for ISP-bound traffic does not violate checklist item 13's requirements at this time. As we have stated, "[i]n the absence" of a Commission rule on reciprocal compensation, "parties may voluntarily include this traffic within the scope of their interconnection agreements . . . [and] they are bound by those agreements, as interpreted and enforced by the state commissions."⁶⁸⁸ At this time, therefore, provided that a carrier follows states' interpretations and requirements promulgated under their interpretation of interconnection agreements, including states' requirements concerning ISP-bound traffic, such carrier has satisfied checklist item 13.

216. The Massachusetts Department has created a rebuttable presumption that the minutes of traffic to a competitive LEC will be presumed local (*i.e.*, non-ISP) and subject to reciprocal compensation up to an amount that is twice the amount of traffic from the competitive

⁶⁸¹ Verizon provides reciprocal compensation to competing carriers for the termination of local calls from Verizon customers under approved interconnection agreements and tariffs. *See* Verizon Massachusetts I Application at 41; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 292.

⁶⁸² *See* Verizon Massachusetts I Application at 41; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 293-94.

⁶⁸³ *See* Massachusetts Department Massachusetts I Comments at 390.

⁶⁸⁴ *See* Sprint Massachusetts I Comments at 23-26; WorldCom Massachusetts I Reply at 41-44; Conversent Massachusetts II Comments at 1-6; Global NAPS Massachusetts II Comments at 3-9.

⁶⁸⁵ *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996: Inter-Carrier Compensation for ISP-Bound Traffic*, Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 96-98, 14 FCC Rcd 3689 at 3706, para. 26 n.87 (1999) (*Reciprocal Compensation Declaratory Ruling*), *rev'd and remanded sub nom. Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000).

⁶⁸⁶ *Bell Atlantic New York Order*, 15 FCC Rcd at 4142, para. 377.

⁶⁸⁷ *See Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000); *Comment Sought on Remand of the Commission's Reciprocal Compensation Declaratory Ruling by the U.S. Court of Appeals for the D.C. Circuit*, CC Docket Nos. 96-98, 99-68, Public Notice, 15 FCC Rcd 11311 (2000).

⁶⁸⁸ *Reciprocal Compensation Declaratory Ruling*, 15 FCC Rcd at 3703, para. 22.

LEC to Verizon.⁶⁸⁹ Verizon states that it will make reciprocal compensation payments in excess of the 2:1 ratio if a competitive LEC provides evidence that its “local” traffic exceeds this ratio, and as of July 2000, one competitive LEC had made such a showing and was receiving reciprocal compensation payments in excess of the 2:1 ratio.⁶⁹⁰ The Massachusetts Department has verified that Verizon “is providing reciprocal compensation under the obligations in its Department-approved interconnection agreements and tariffs, as well as relevant Department Orders.”⁶⁹¹ Therefore, we find that Verizon is in compliance with checklist item 13.

E. Checklist Item 14 – Resale

217. Section 271(c)(2)(B)(xiv) of the Act requires a BOC to make “telecommunications services . . . available for resale in accordance with the requirements of sections 251(c)(4) and 252(d)(3).”⁶⁹² Based on the evidence in the record, we conclude that Verizon demonstrates that it makes telecommunications services available in Massachusetts for resale in accordance with sections 251(c)(4) and 252(d)(3), and thus satisfies the requirements of checklist item 14. Verizon states that it is in compliance with the requirements of this checklist item,⁶⁹³ and the Massachusetts Department agrees.⁶⁹⁴ Verizon says that it commits in its interconnection agreements and tariffs to making its retail services available to competing carriers at wholesale rates.⁶⁹⁵ In its *Consolidated Arbitrations* proceeding, conducted after the 1996 Act was implemented, the Massachusetts Department used an avoided-cost calculation method consistent with the Commission’s pricing rules to establish interim resale discount rates of 24.99 percent for lines with Verizon’s operator services and directory assistance, and 29.47 percent for lines without these features.⁶⁹⁶ These interim rates were adopted as permanent rates by the

⁶⁸⁹ Verizon Massachusetts I Application App. G, Vol. 5, Tab 108, *Complaint of MCI WorldCom, Inc. Against New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts for Breach of Interconnection Terms Entered into Under Sections 251 and 252 of the Telecommunications Act of 1996*, DTE 97-116-C at 19-31 (May 19, 1999).

⁶⁹⁰ Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 294.

⁶⁹¹ Massachusetts Department Massachusetts I Comments at 390.

⁶⁹² 47 U.S.C. § 271(c)(2)(B)(xiv).

⁶⁹³ See Verizon Massachusetts I Application at 41-43; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 295-308.

⁶⁹⁴ See Massachusetts Department Massachusetts I Comments at 396-97.

⁶⁹⁵ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 295-96.

⁶⁹⁶ Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 295; *Consolidated Petitions of New England Telephone and Telegraph Company d/b/a NYNEX, Teleport Communications Group, Inc., Brooks Fiber Communications, AT&T Communications of New England, Inc., MCI Communications Company, and Sprint Communications Company, L.P., Pursuant to Section 252(b) of the Telecommunications Act of 1996, for Arbitration of Interconnection Agreements Between NYNEX and the Aforementioned Companies*, D.P.U. 96-73/74, 96-75, 96-80/81, 96-83, 96-94 -- Phase 2 (Dec. 2, 1996) (*Massachusetts DTE Phase 2 Order*); Massachusetts Department Massachusetts I Comments at 393. We note that the United States Court of Appeals for the Eighth (continued....)

Massachusetts Department in 1999.⁶⁹⁷ Verizon applies the wholesale discount to customer specific arrangements (CSAs), grandfathered services, and promotional offerings in effect more than 90 days. For promotional offerings of 90 days or less, competing carriers may elect to have Verizon apply the wholesale discount to the retail price of telecommunications services offered in the promotional offering, or to pay the promotional offering rate.⁶⁹⁸ Competing carriers may purchase at the wholesale discount CSAs to resell to new customers.⁶⁹⁹ Verizon permits competing carriers that resell CSAs to meet minimum volume requirements by aggregating the traffic of multiple end-user customers, provided that those customers are similarly situated to the customer(s) of Verizon's original contract.⁷⁰⁰

218. Verizon also states that it makes its retail telecommunications services available for resale without unreasonable or discriminatory conditions or limitations.⁷⁰¹ The Massachusetts Department agrees.⁷⁰² According to Verizon, it provides for resale all of the telecommunications services that it provides at retail to subscribers that are not telecommunications carriers.⁷⁰³ Verizon demonstrates that it provides its retail telecommunications services for resale in a nondiscriminatory and timely manner.⁷⁰⁴

219. We reject commenters' contentions that Verizon fails this checklist item because its separate advanced services affiliate was not providing DSL and other advanced services at
(Continued from previous page) _____

Circuit issued an order vacating and remanding the Commission's pricing rule regarding the determination of avoided retail costs. *Iowa Utils. Bd. v. FCC*, 219 F.3d 744 (8th Cir. 2000).

⁶⁹⁷ See Verizon Massachusetts I Application App. F, Vol. 8, Tab 157, *Investigation by the Department on Its Own Motion Into the Propriety of the Resale Tariff of New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts*, Filed with the Department on January 16, 1998, to Become Effective February 14, 1998, DTE 98-15 (Phases II and III) at 11-17 (Mar. 19, 1999). The Massachusetts Department recently initiated an investigation to review the avoided cost discount for Verizon's resale services. See Verizon Massachusetts II Application App. B, Tab 4, Subtab D, *Investigation by the Department of Telecommunications and Energy on its own Motion into the Appropriate Pricing, Based upon Total Element Long-Run Incremental Costs, for Unbundled Network Elements and Combination of Unbundled Network Elements, and the Appropriate Avoided Cost Discount for Verizon New England, Inc. d/b/a Verizon Massachusetts' Resale Services in the Commonwealth of Massachusetts*, DTE 01-20 (Jan. 12, 2001).

⁶⁹⁸ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 298. Pursuant to Commission rules, incumbent LECs do not need to offer for resale short-term promotions of 90 days or less, as long as such short-term promotions are not used to evade the wholesale rate obligation. See 47 C.F.R. § 51.613(a)(2)(ii).

⁶⁹⁹ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 298.

⁷⁰⁰ See *id.* at para. 299.

⁷⁰¹ See *id.* at para. 296.

⁷⁰² See Massachusetts Department Massachusetts I Comments at 396-97.

⁷⁰³ See Verizon Massachusetts I Application at 41; Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 295.

⁷⁰⁴ See Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 304-08.

resale discounts in accordance with the *ASCENT v. FCC* decision.⁷⁰⁵ The mandate in that decision had not issued when Verizon filed the instant application.⁷⁰⁶ Accordingly, we find the *ASCENT* decision is not relevant to our analysis of checklist compliance in the context of this proceeding.⁷⁰⁷

220. We find unpersuasive Allegiance's claim that the Commission should adopt a "fresh look" policy.⁷⁰⁸ Allegiance asserts that the Commission should allow customers in long-term contracts with Verizon for local exchange and intraLATA service to switch to competing telecommunications carriers before the expiration of their Verizon contracts without incurring termination penalties. We note that a similar issue has been raised by KMC Telecom in a Petition for Declaratory Ruling, which is currently pending.⁷⁰⁹ We find, as we did in prior orders, that this issue is best addressed in the context of that pending petition, and we decline to resolve the issue here.⁷¹⁰

221. Based on evidence in the record, we also find that Verizon satisfies the provisioning requirements of checklist item 14. As discussed above, Verizon is provisioning competitive LECs' orders for resale in substantially the same time and manner as for its retail customers.⁷¹¹

F. Remaining Checklist Items (6-12)

⁷⁰⁵ See *ASCENT Massachusetts II Comments* at 3; *AT&T Massachusetts II Reply* at 21 (citing *Association of Communications Enterprises v. FCC*, Case No. 99-1441, slip op. (D.C. Cir. Jan 9, 2001) (hereafter *ASCENT*). This decision overturned the Commission's determination in the *SBC/Ameritech Order* that, because the separate advanced services affiliate was not a successor or assign of the BOC, the separate advanced services affiliate could avoid the resale obligations of 251(c)(4). Because the Commission incorporated by reference the successor or assign analysis of the *SBC/Ameritech Order* into the *Bell Atlantic/GTE Order*, the D.C. Circuit's decision also impacts the Commission's conclusion in the *Bell Atlantic/GTE Order*.

⁷⁰⁶ The D.C. Circuit issued the mandate in *ASCENT* on March 6, 2001.

⁷⁰⁷ Verizon should not be faulted for its efforts to comply with a Commission order in effect at the time of the application, even though portions of that order were subsequently vacated. See *SWBT Kansas/Oklahoma Order* at para. 253. As the D.C. Circuit affirmed, "compliance with Commission orders cannot serve as a basis for rejecting an application." *AT&T v. FCC*, 220 F.3d at 630.

⁷⁰⁸ Allegiance Massachusetts I Reply at 7-8.

⁷⁰⁹ See *In re Establishment of Rules to Prohibit the Imposition of Unjust, Onerous Termination Penalties on Customers Choosing to Partake of the Benefits of Local Exchange Telecommunications Competition*, Petition for Declaratory Ruling, CC Docket No. 99-142 (Apr. 26, 1999) (requesting that the Commission declare unlawful termination penalties imposed by incumbent LECs, prohibit enforcement of incumbent LEC termination penalties, and require the removal of incumbent LEC termination penalties from state tariffs until more competition develops).

⁷¹⁰ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4148, para. 391; *SWBT Texas Order*, 15 FCC Rcd at 18547-48, para. 391; *SWBT Kansas/Oklahoma Order* at para. 253.

⁷¹¹ See *supra* Part IV(A)(2).

222. An applicant under section 271 must demonstrate that it complies with checklist item 6 (unbundled local switching),⁷¹² item 7 (911/E911 access and directory assistance/operator services),⁷¹³ item 8 (white page directory listings),⁷¹⁴ item 9 (numbering administration),⁷¹⁵ item 10 (databases and associated signaling),⁷¹⁶ item 11 (number portability),⁷¹⁷ and item 12 (local dialing parity).⁷¹⁸ Based on the evidence in the record, and in accordance with Commission rules and orders concerning compliance with section 271 of the Act, we conclude that Verizon demonstrates that it is in compliance with checklist items 6, 7, 8, 9, 10, 11 and 12 in Massachusetts.⁷¹⁹ The Massachusetts Department also concludes that Verizon complies with the requirement of each of these checklist items.⁷²⁰ Moreover, no commenter raised allegations challenging Verizon's compliance with these checklist items.

VI. COMPLIANCE WITH SECTION 271(C)(1)(A)

A. Background

223. In order for the Commission to approve a BOC's application to provide in-region, interLATA services, a BOC must first demonstrate that it satisfies the requirements of either section 271(c)(1)(A) (Track A) or 271(c)(1)(B) (Track B).⁷²¹ To qualify for Track A, a BOC must have interconnection agreements with one or more competing providers of "telephone

⁷¹² 47 U.S.C. § 271(c)(2)(B)(vi). We discuss the statutory requirements of checklist items 6-12 in Appendix B to this Order.

⁷¹³ *Id.* § 271(c)(2)(B)(vii).

⁷¹⁴ *Id.* § 271(c)(2)(B)(viii).

⁷¹⁵ *Id.* § 271(c)(2)(B)(ix). ALTS and Sprint allege that Verizon mismanaged its responsibility when it was the local numbering administrator. *See* ALTS Massachusetts I Comments at 52; Sprint Massachusetts II Comments at 11. Because Verizon is no longer the administrator, however, these parties do not claim that Verizon has failed to satisfy checklist item 9. Rather, they raise this issue as a public interest concern. Accordingly, we discuss these claims in the Public Interest section below. *See infra* Part VIII.C.

⁷¹⁶ 47 U.S.C. § 271(c)(2)(B)(x).

⁷¹⁷ *Id.* § 271(c)(2)(B)(xi).

⁷¹⁸ *Id.* § 271(c)(2)(B)(xii).

⁷¹⁹ *See* Verizon Massachusetts I Application at 30-31 (checklist item 6), 35-37 (checklist item 7), 37-38 (checklist item 8), 38 (checklist item 9), 38-39 (checklist item 10), and 40 (checklist items 11 and 12); Verizon Massachusetts I Lacouture/Ruesterholz Decl. at paras. 145-58 (checklist item 6), 203-34 (checklist item 7), 235-51 (checklist item 8), 252-56 (checklist item 9), 257-82 (checklist item 10), 283-86 (checklist item 11), and 287-91 (checklist item 12); Verizon Massachusetts I Reply at 42 (checklist item 9).

⁷²⁰ *See* Massachusetts Department Massachusetts I Comments at 340-48 (checklist item 6), 348-57 (checklist item 7), 357-63 (checklist item 8), 363-66 (checklist item 9), 366-71 (checklist item 10), 371-81 (checklist item 11), and 381-84 (checklist item 12).

⁷²¹ *See* 47 U.S.C. § 271(d)(3)(A).

exchange service . . . to residential and business subscribers.”⁷²² The Act states that “such telephone service may be offered . . . either exclusively over [the competitor’s] own telephone exchange service facilities or predominantly over [the competitor’s] own telephone exchange facilities in combination with the resale of the telecommunications services of another carrier.”⁷²³ The Commission concluded in the *Ameritech Michigan Order* that section 271(c)(1)(A) is satisfied if one or more competing providers collectively serve residential and business subscribers.⁷²⁴

B. Discussion

224. We conclude, as did the Massachusetts Department, that Verizon demonstrates that it satisfies the requirements of Track A based on the interconnection agreements it has implemented with competing carriers in Massachusetts.⁷²⁵ The Massachusetts Department has approved a substantial number of binding interconnection agreements between Verizon and competing providers of telephone exchange service.⁷²⁶ The record demonstrates that the three largest competing carriers in Massachusetts -- AT&T, WorldCom, and RCN -- collectively provide telephone exchange service predominantly over their own facilities to residential and business subscribers.⁷²⁷ Verizon also asserts that six other competitive LECs provide business and/or residential service through some mix of their own facilities, UNEs, UNE-P, and resale.⁷²⁸

225. Although AT&T and WorldCom have challenged some of Verizon’s estimates of the number of residential customers served over competitors’ own facilities, those carriers have not challenged Verizon’s claim that a sufficient number of residential customers are being served by competing LECs using their own facilities to demonstrate that there is an “actual commercial

⁷²² *Id.*

⁷²³ *Id.*

⁷²⁴ See *Ameritech Michigan Order*, 12 FCC Rcd at 20589, para. 85; see also *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20633-35, paras. 46-48.

⁷²⁵ See Massachusetts Department Massachusetts I Comments at 18; see also Department of Justice Massachusetts I Evaluation at 3-5 (describing level of residential and business telephone exchange service competition in Massachusetts).

⁷²⁶ See Massachusetts Department Massachusetts I Comments at 17-18. The Massachusetts Department has approved, pursuant to section 252 of the Act, more than 70 interconnection agreements between Verizon and various competing carriers. See *id.* at 17; see also Verizon Massachusetts I Taylor Decl. Attach. A at paras. 16-36.

⁷²⁷ See Verizon Massachusetts I Application at 5; see also Massachusetts Department Massachusetts I Comments at 17-18.

⁷²⁸ See Verizon Massachusetts I Taylor Decl. Attach. A at paras. 16-36. The six competitive LECs are: Allegiance, Network Plus Corp., ChoiceOne Communications, Global Crossing, PaeTec Communications and NEXTLINK. See also the updated totals in Verizon Massachusetts II Application Attach. B.

alternative” to Verizon in Massachusetts for purposes of a Track A showing.⁷²⁹ Specifically, both AT&T and WorldCom complain that Verizon’s method of estimation overstates the current level of residential telephony competition in Massachusetts.⁷³⁰ Even if we credited such claims, however, Verizon has shown that facilities-based competing carriers serve more than a *de minimis* number of residential customers in Massachusetts. AT&T and WorldCom do not challenge this claim.⁷³¹ Moreover, no carrier has challenged Verizon’s evidence with regard to the level of facilities-based business competition. Accordingly, we conclude that Verizon has met the requirements for a Track A showing.

VII. SECTION 272 COMPLIANCE

A. Background

226. Section 271(d)(3)(B) requires that the Commission shall not approve a BOC’s application to provide interLATA services unless the BOC demonstrates that the “requested authorization will be carried out in accordance with the requirements of section 272.”⁷³² The Commission set standards for compliance with section 272 in the *Accounting Safeguards Order* and the *Non-Accounting Safeguards Order*.⁷³³ Together, these safeguards discourage and facilitate the detection of improper cost allocation and cross-subsidization between the BOC and its section 272 affiliate.⁷³⁴ In addition, these safeguards ensure that BOCs do not discriminate in favor of their section 272 affiliates.⁷³⁵ As the Commission stated in prior section 271 orders,

⁷²⁹ *Application by SBC Communications Inc., Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Oklahoma*, 12 FCC Rcd 8685, 8695, para. 14 (construing section 271(c)(1)(A) as requiring that “there must be an actual commercial alternative to the BOC in order to satisfy” Track A). The D.C. Circuit affirmed this reading of Track A. *See SBC Communications v. FCC*, 138 F.3d 410, 416-17 (D.C. Cir. 1998).

⁷³⁰ *See* WorldCom Massachusetts I Comments at 70-72; AT&T Massachusetts I Reply at 8.

⁷³¹ AT&T and WorldCom do assert, however, that approving this application at the current level of residential competition in Massachusetts would be contrary to the public interest. *See infra* Part VIII.A.

⁷³² 47 U.S.C. § 271(d)(3)(B).

⁷³³ *See Implementation of the Accounting Safeguards Under the Telecommunications Act of 1996*, CC Docket No. 96-150, Report and Order, 11 FCC Rcd 17539 (1996) (*Accounting Safeguards Order*), Second Order On Reconsideration, FCC 00-9 (rel. Jan. 18, 2000); *Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended*, CC Docket No. 96-149, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 21905 (1996) (*Non-Accounting Safeguards Order*); First Order on Reconsideration, 12 FCC Rcd 2297 (1997), Second Order on Reconsideration, 12 FCC Rcd 8653 (1997), *aff’d sub nom. Bell Atlantic Tel. Cos. v. FCC*, 131 F.3d 1044 (D.C. Cir. 1997), Third Order on Reconsideration, FCC 99-242 (rel. Oct. 4, 1999).

⁷³⁴ *See Non-Accounting Safeguards Order*, 11 FCC Rcd at 21914; *Accounting Safeguards Order*, 11 FCC Rcd at 17550; *Ameritech Michigan Order*, 12 FCC Rcd at 20725.

⁷³⁵ *See Non-Accounting Safeguards Order*, 11 FCC Rcd at 21914, paras. 15-16; *Ameritech Michigan Order*, 12 FCC Rcd at 20725, para. 346.

compliance with section 272 is “of crucial importance” because the structural, transactional, and nondiscrimination safeguards of section 272 seek to ensure that BOCs compete on a level playing field.⁷³⁶

B. Discussion

227. Based on the record, we conclude that Verizon has demonstrated that it complies with the requirements of section 272. Significantly, Verizon provides evidence that it maintains the same structural separation and nondiscrimination safeguards in Massachusetts as it does in New York, a state in which Verizon has already received section 271 authority.⁷³⁷ With the exception of Verizon’s provisioning of special access services, no party challenges Verizon’s section 272 showing. We address each section 272 requirement below.

1. Unchallenged Sections

228. We find, based on the evidence in the record, that Verizon’s Massachusetts section 272 structure and compliance controls are the same as those the Commission reviewed for New York.⁷³⁸ Specifically, we conclude that Verizon demonstrates it will operate in accordance with the following elements of section 272: 1) section 272(a), which requires the BOC and its local exchange carrier affiliates that are subject to section 251(c) to provide certain competitive services through structurally separate affiliates; 2) section 272(b), which requires the BOC to demonstrate that its section 272 affiliates will operate independently, maintain separate books, records, and accounts, maintain separate officers, directors and employees, comply with certain credit requirements, and comply with the Commission’s arm’s length and public disclosure requirements; 3) section 272(c), which requires the BOC to account for all transactions with section 272 affiliates in accordance with the accounting principles designated or approved by the Commission and prohibits discrimination in favor of the section 272 affiliates in the “provision or procurement of goods, services, facilities, and information, or in the establishment of standards;” 4) section 272(d), which requires an independent audit of the BOC’s compliance with section 272

⁷³⁶ *Ameritech Michigan Order*, 12 FCC Rcd at 20725; *see SWBT Texas Order*, 15 FCC Rcd at 18549, para. 395.

⁷³⁷ *See Verizon Massachusetts I Application* at 55-56; *Bell Atlantic New York Order*, 15 FCC Rcd at 4153, para. 403.

⁷³⁸ *See Verizon Massachusetts I Application* at 55-59; *Verizon Massachusetts I Application App. A, Vol. 4, Declaration of Susan C. Browning* at para. 9 (*Verizon Massachusetts I Browning Decl.*) (Massachusetts “structural and transactional safeguards are the same as those that the Commission approved in granting Verizon section 271 authority for New York.”); *see also Bell Atlantic New York Order*, 15 FCC Rcd at 4154-58, paras. 406-14. In addition, Verizon proffers unchallenged evidence that the same section 272 internal controls the Commission reviewed for New York are in place in Massachusetts. *See Verizon Massachusetts I Application* at 55-58; *Verizon Massachusetts I Browning Decl.* at paras. 7, 10(b), 10(c), 11, 12(a), 12(b), 12(c), 13, 14, 22-26, 29 & *Attachs. B, D, F, G, H, K, J, M, P, Z.*

after receiving interLATA authorization; and 5) section 272(g), which requires that the BOC comply with that section's joint marketing provisions and affiliate services requirements.⁷³⁹

2. Challenged Sections

229. *Section 272(e) – Fulfillment of Certain Requests.* Based on the evidence in the record, we conclude that Verizon will comply with section 272(e).⁷⁴⁰ Specifically, section 272(e) requires the BOC to fulfill requests for, among other things, telephone exchange and exchange access services from unaffiliated entities within the same time period the BOC fulfills such requests for its own retail operations.⁷⁴¹ In addition, section 272(e) also provides that a BOC “shall not provide any facilities, services, or information concerning its provision of exchange access to the [section 272 affiliate] unless such facilities, services or information are made available to other providers of interLATA services in that market on the same terms and conditions.”⁷⁴² Finally, section 272(e) places certain accounting and nondiscrimination requirements on BOCs with respect to exchange access and facilities or services provided to their section 272 affiliates.⁷⁴³

230. Several parties complain that the quality of Verizon's provisioning of special access services is poor.⁷⁴⁴ These comments do not undermine our finding that Verizon complies with section 272. As the Commission stated in the *Bell Atlantic New York Order* and the *SWBT Texas Order*, we do not consider the provision of special access services pursuant to a tariff for purposes of Verizon's section 272 showing.⁷⁴⁵ In addition, our section 272 analysis does not focus on Verizon's provisioning of special access services because Verizon does not currently have an operational section 272 affiliate in Massachusetts. Consequently, we do not, nor could

⁷³⁹ Verizon Massachusetts I Application at paras. 55-58; Verizon Massachusetts I Browning Decl. at paras. 7, 10(b), 10(c), 11, 12(a), 12(b), 12(c), 13, 14, 22-26, 29 & Attach. B, D, F, G, H, K, J, M, P, Z; *see also Bell Atlantic New York Order*, 15 FCC Rcd at 4154-58, paras. 406-14.

⁷⁴⁰ *See* Verizon Massachusetts I Application at 57-58; Verizon Massachusetts I Browning Decl. at paras. 18-21 & Attachs. O, P. Verizon demonstrates that it will provide accurate data regarding actual service intervals so that unaffiliated parties can evaluate the performance Verizon provides itself and its affiliates and compare such performance to the service quality Verizon provides to competing carriers. *See also* Verizon Massachusetts I Lacouture/Ruesterholz Decl. at para. 23.

⁷⁴¹ 47 U.S.C. § 272(e)(1); *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22018-22, paras. 239-45; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20800-01, paras. 348-50; *see* Verizon Massachusetts I Application at 57-58; Verizon Massachusetts I Browning Decl. at para. 18.

⁷⁴² 47 U.S.C. § 272(e)(2).

⁷⁴³ *See id.* § 272(e)(3), (e)(4); *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20802-03, paras. 353-55; *see* Verizon Massachusetts I Application at 57-58; Verizon Massachusetts I Browning Decl. at para. 18.

⁷⁴⁴ *See, e.g.,* CompTel Massachusetts I Comments at 9-15; AT&T Massachusetts II Reply at 28-33.

⁷⁴⁵ *See Bell Atlantic New York Order*, 15 FCC Rcd at 4126-27, para. 340; *SWBT Texas Order*, 15 FCC Rcd at 18520, para. 335; *see also Second BellSouth Louisiana Order*, 13 FCC Rcd at 20800-01.

we, inquire whether Verizon provides competitors special access on a nondiscriminatory basis, as compared to Verizon's section 272 affiliates. Our review, instead, focuses upon whether, after it receives section 271 authority, Verizon will maintain records tracking the quality of service to its section 272 affiliate for telephone exchange and exchange access services.⁷⁴⁶ While the Commission has not prescribed a reporting format, Verizon will provide exchange access service quality as described in its application.⁷⁴⁷ Because Verizon's special access performance will be included in these reports,⁷⁴⁸ we expect that any such discrimination will be detectable.

231. Finally, we note that Verizon reports to the Commission its special access performance pursuant to the *Bell Atlantic/GTE Merger Conditions*⁷⁴⁹ and, to the extent that parties are experiencing problems in the provisioning of special access services ordered from Verizon's federal tariffs, we note that these issues are appropriately addressed in the Commission's section 208 complaint process.

VIII. PUBLIC INTEREST ANALYSIS

232. Separate from determining whether a BOC satisfies the competitive checklist and will comply with section 272, Congress directed the Commission to assess whether the requested authorization would be consistent with the public interest, convenience, and necessity.⁷⁵⁰ We conclude that approval of this application is consistent with the public interest.

233. We view the public interest requirement as an opportunity to review the circumstances presented by the application to ensure that no other relevant factors exist that would frustrate the congressional intent that markets be open, as required by the competitive checklist, and that entry will therefore serve the public interest as Congress expected. Among other things, we may review the local and long distance markets to ensure that there are not unusual circumstances that would make entry contrary to the public interest under the particular circumstances of this application.⁷⁵¹ Another factor that could be relevant to our analysis is

⁷⁴⁶ See *Non-Accounting Safeguards Order*, 11 FCC Rcd at 22018-22, paras. 239-45.

⁷⁴⁷ See Verizon Massachusetts I Browning Decl. at para. 18 & Attach. Q (providing performance metrics reporting format and business rules).

⁷⁴⁸ See, e.g., *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Order on Remand, 15 FCC Rcd 385, 406, para. 45 (1999) (stating that special access services are included within the broader category of exchange access services).

⁷⁴⁹ See *Applications of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control of Domestic and International Sections 214 and 310 Authorizations and Application to Transfer Control of a Submarine Cable Landing License*, CC Docket No. 98-184, Memorandum Opinion and Order, 15 FCC Rcd 14032, App. D, at para. 53 (2000).

⁷⁵⁰ See 47 U.S.C. § 271(d)(3)(C).

⁷⁵¹ See *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20805-06, para. 360 (the public interest analysis may include consideration of "whether approval . . . will foster competition in all relevant telecommunications markets").

whether we have sufficient assurance that markets will remain open after grant of the application. While no one factor is dispositive in this analysis, our overriding goal is to ensure that nothing undermines our conclusion, based on our analysis of checklist compliance, that this market is open to competition.

A. Competition in Local Exchange and Long Distance Markets

234. As set forth below, we conclude that approval of this application is consistent with promoting competition in the local and long distance telecommunications markets in Massachusetts. Consistent with our extensive review of the competitive checklist, which embodies the critical elements of market entry under the Act, we find that barriers to competitive entry in the local markets have been removed and the local exchange markets today are open to competition. We further find that the record confirms our view, as noted in prior section 271 orders, that BOC entry into the long distance market will benefit consumers and competition if the relevant local exchange market is open to competition consistent with the competitive checklist.⁷⁵²

235. Several commenters argue that the public interest would be disserved by granting Verizon's application because the local market in Massachusetts has not yet truly been opened to competition.⁷⁵³ We disagree. Commenters cite an array of evidence which, they argue, demonstrates that the local telecommunications market is not open and that competition has not sufficiently taken hold in Massachusetts. For example, several commenters suggest that the state of competition for residential services in Massachusetts indicates that this market is not yet truly open.⁷⁵⁴ Given an affirmative showing that a market is open and the competitive checklist has been satisfied, low customer volumes in and of themselves do not undermine that showing. Factors beyond a BOC's control, such as individual competitive LEC entry strategies, might explain a low residential customer base. We note that Congress specifically declined to adopt a market share or other similar test for BOC entry into long distance, and we have no intention of establishing one here.⁷⁵⁵

B. Assurance of Future Compliance

236. Verizon's Performance Assurance Plan (or PAP) for Massachusetts provides additional assurance that the local market will remain open after Verizon receives section 271 authorization. The Commission previously has explained that one factor it may consider as part of its public interest analysis is whether a BOC would continue to satisfy the requirements of

⁷⁵² See *SWBT Texas Order*, 15 FCC Rcd at 18558-59, para. 419.

⁷⁵³ See, e.g., Sprint Massachusetts I Comments at 68; AT&T Massachusetts II Comments at 24-29.

⁷⁵⁴ See, e.g., WorldCom Massachusetts I Comments at 65-73; AT&T Massachusetts II Comments at 24. The commenters generally attribute the lack of competition to Verizon's UNE pricing. As noted above, however, Verizon has made a sufficient showing on this issue. See *supra* Part VI.A.1.

⁷⁵⁵ See *Ameritech Michigan Order*, 12 FCC Rcd at 20585, para. 77.

section 271 after entering the long distance market.⁷⁵⁶ Although the Commission strongly encourages state performance monitoring and post-entry enforcement, it has never required BOC applicants to demonstrate that they are subject to such mechanisms as a condition of section 271 approval.⁷⁵⁷ The Commission has stated that the fact that a BOC will be subject to performance monitoring and enforcement mechanisms would constitute probative evidence that the BOC will continue to meet its section 271 obligations and that its entry would be consistent with the public interest.⁷⁵⁸ Indeed, performance monitoring and enforcement mechanisms administered by state commissions can be critical complements to this Commission's section 271(d)(6) authority given the state commissions' historical role in regulating local exchange services. We note that in all the applications that have been granted to date, each contained an enforcement plan to protect against backsliding after entry into the long-distance market.⁷⁵⁹

1. Performance Assurance Plan

237. The Massachusetts Department has ordered Verizon to report performance data, on a monthly basis, using a wide range of performance measurements or metrics.⁷⁶⁰ These measurements were developed through the "Carrier-to-Carrier Service Quality" proceeding before the New York Commission.⁷⁶¹ The measurements track Verizon's performance on functions essential to an open, competitive local market: pre-ordering, ordering, provisioning, maintenance and repair, network performance (interconnection trunks), collocation, billing and

⁷⁵⁶ See, e.g., *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20806, paras. 363-64; see *Ameritech Michigan Order*, 12 FCC Rcd at 20747, para. 390.

⁷⁵⁷ These mechanisms are generally administered by state commissions and derive from authority the states have under state law or under the federal Act. As such, these mechanisms can serve as critical complements to the Commission's authority to preserve checklist compliance pursuant to section 271(d)(6). Moreover, in this instance, we find that the collaborative process by which these mechanisms were developed in New York and adapted in Massachusetts has itself helped to bring Verizon into checklist compliance.

⁷⁵⁸ See *SWBT Kansas/Oklahoma Order* at para. 269.

⁷⁵⁹ See, e.g., *id.* at paras. 270-80.

⁷⁶⁰ See *Verizon Massachusetts I Guerard/Canny Decl.* at para. 16; Massachusetts Department of Telecommunications and Energy, *Evaluation of Bell Atlantic-Massachusetts Operation Support Systems: Final Attachment A to 11/19/99 Letter Order on Final Master Test Plan*, Verizon Massachusetts I Application App. B, Vol. 24, Tab 282 (adopting in Massachusetts the carrier-to-carrier guidelines established by the New York Commission); Verizon Massachusetts II Application App. B, Vol. 1, Subtabs A & B (current carrier-to-carrier guidelines).

⁷⁶¹ See *Verizon Massachusetts I Guerard/Canny Decl.* at paras. 13-16. Verizon must notify the Massachusetts Department of changes to the New York PAP. Verizon must file the notification within 10 days of the New York Commission's order. The Massachusetts Department will then decide whether the changes should be made to the Massachusetts PAP. See Massachusetts Department of Telecommunications and Energy, *Order on Motions for Clarification and Reconsideration of Performance Assurance Plan*, D.T.E. 99-271, Verizon Massachusetts II Application App. B, Vol. 3, Tab 4, Subtab B at 14 (*Massachusetts DTE November 21st Order*).

operator services. Associated with most of these measurements are standards -- either benchmarks or retail analogues -- also developed through the carrier-to-carrier proceeding.⁷⁶²

238. The Massachusetts Department also required Verizon to submit a comprehensive performance enforcement mechanism, which would become effective upon Verizon receiving authority to provide interLATA services under section 271.⁷⁶³ The PAP is modeled on the New York plan the Commission reviewed in the *Bell Atlantic New York Order*. The PAP establishes an automatic process under which affected competitors receive bill credits if Verizon fails to satisfy pre-determined performance standards on a sub-set of the carrier-to-carrier reporting metrics.⁷⁶⁴

239. The PAP has undergone several changes since Verizon's first Massachusetts filing. After that filing, the Massachusetts Department responded to competitive LECs' complaints by ordering Verizon, *inter alia*, to increase the amount of bill credits available for payment and to add DSL and Line Sharing metrics.⁷⁶⁵

2. Key Elements of the Performance Assurance Plan

240. The PAP in Massachusetts provides incentives to foster post-entry checklist compliance. Plans may vary in their strengths and weaknesses, and there is no one way to demonstrate assurance.⁷⁶⁶ In the *Bell Atlantic New York Order*, the Commission predicted that the enforcement mechanisms developed in New York would be effective in practice.⁷⁶⁷ The carrier-to-carrier guidelines were developed through a collaborative process involving the New York Commission, Verizon, and competitive LECs. The collaborative efforts yielded workable

⁷⁶² Wherever possible, the carrier-to-carrier guidelines establish "parity" standards (a performance level which is the same for competitors as it is for Verizon's retail operations). See Verizon Massachusetts I Guerard/Canny Decl. at para. 20. For wholesale functions that do not have retail analogues, the carrier-to-carrier guidelines establish absolute standards, usually a fixed percentage or a fixed period of time. See *id.*

⁷⁶³ See Letter from Dee May, Executive Director -- Federal Regulatory, Verizon, to Magalie Roman Salas, Secretary, FCC (Feb. 3, 2001) (*Verizon January 30th PAP*). This PAP was adopted by the Massachusetts Department on February 23, 2001. See Massachusetts Department Massachusetts II Reply App. C.

⁷⁶⁴ The procedures and requirements of the PAP are described generally in Verizon's application, submissions made to the Massachusetts Department, and the Massachusetts Department's orders. See, e.g., *Verizon January 30th PAP*.

⁷⁶⁵ See *Massachusetts DTE November 21st Order*; *Verizon January 30th PAP*.

⁷⁶⁶ See *Ameritech Michigan Order*, 12 FCC Rcd at 20741-51, para. 393.

⁷⁶⁷ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4166-67, para. 433. This prediction was based on five characteristics: potential liability that provides a meaningful and significant incentive to comply with the designated performance standards; clearly-articulated, pre-determined measures and standards, which encompass a comprehensive range of carrier-to-carrier performance; a reasonable structure that is designed to detect and sanction poor performance when it occurs; a self-executing mechanism that does not leave the door open unreasonably to litigation and appeal; and reasonable assurances that the reported data are accurate. See *id.* at 433.

measures to sufficiently capture Verizon's wholesale performance.⁷⁶⁸ As explained below, the Massachusetts Department established a PAP that discourages anti-competitive behavior by setting the damages and penalties at a level above the simple cost of doing business.

241. *Total Liability At Risk.* The Massachusetts PAP places a total of \$155 million in potential bill credits placed at risk, on an annual basis, under all components of the PAP.⁷⁶⁹ The PAP adopted by the Massachusetts Department does not represent the only means of ensuring that Verizon continues to provide nondiscriminatory service to competing carriers. In addition to the \$155 million at stake under this plan, Verizon faces other consequences if it fails to sustain a high level of service to competing carriers, including: federal enforcement action pursuant to section 271(d)(6) and remedies associated with antitrust and other legal actions.⁷⁷⁰

242. We reject commenters' assertions that the PAP limitations on the damages available to competitive LECs to the *higher* of PAP bill credits or damages under their individual interconnection agreements dilutes the PAP's value as an anti-backsliding safeguard.⁷⁷¹ We also note that in previous section 271 orders the Commission has seen public interest benefits in liquidated contract damages to supplement enforcement plan damages.⁷⁷² The Massachusetts Department concludes, however, that the interconnection agreements here provide damages more like a comprehensive PAP than the limited contract damages available to competitive LECs in New York.⁷⁷³ In addition, the Massachusetts Department has found that requiring Verizon to pay

⁷⁶⁸ See Verizon Massachusetts II Application App. B, Vol. 1, Tab 1, Subtabs A and B (current carrier-to-carrier guidelines).

⁷⁶⁹ See Verizon January 30th PAP at 4. We reach this number by adding the following components: \$39.68 million (Mode of Entry (MOE)); \$39.68 million (MOE "doubling" provisions); \$42.85 million (Critical Measures); \$27.51 million (Special Provisions); and \$5.28 million (Change Control Assurance Plan). See *id.* In the *Bell Atlantic New York, SWBT Texas, and SWBT Kansas/Oklahoma Orders* the Commission reviewed plans that subjected 36 percent of the applicant's Net Return to liability for sub-par service quality. See *Bell Atlantic New York Order*, 15 FCC Rcd at 4168, para. 436 n.1332; *SWBT Texas Order*, 15 FCC Rcd at 18561, para. 424 n.1235; *SWBT Kansas/Oklahoma Order* at para. 274 n.837. The \$155 million at risk here represents 39 percent of Verizon's Net Return. See Massachusetts Department Massachusetts II Reply App. C.

⁷⁷⁰ See Verizon Massachusetts I Application at 74. See also *Bell Atlantic New York Order*, 15 FCC Rcd at 4165, para. 430 (stating that the BOC "risks liability through antitrust and other private causes of action if it performs in an unlawfully discriminatory manner") (footnote omitted); *SWBT Texas Order*, 15 FCC Rcd at 18560, para. 421 (same).

⁷⁷¹ See, e.g., ALTS Massachusetts I Comments at iii, 58; WorldCom Massachusetts I Kinard Decl. at paras. 32-33; WorldCom Massachusetts I Reply at 33.

⁷⁷² See, e.g., *SWBT Texas Order*, 15 FCC Rcd at 18562, para. 424; *Bell Atlantic New York Order*, 15 FCC Rcd at 4168, para. 435.

⁷⁷³ See *Massachusetts DTE November 21st Order* at 12-13; Massachusetts Department Massachusetts II Reply at Attach. C; see also Verizon Massachusetts I Reply at 56; Verizon Massachusetts I Guerard/Canny Joint Reply Decl. at para. 35.

cumulative damages would result in double counting.⁷⁷⁴ Finally, the Massachusetts Department can increase the amount of bill credits available to competitive LECs under the PAP should it decide that the current amount is inadequate to compensate competitive LECs and penalize Verizon.⁷⁷⁵ Given this, the PAP, with the Massachusetts Department's ongoing oversight, will deter backsliding and serve the public interest.

243. *Performance Measurements and Standards.* Each performance metric developed through the carrier-to-carrier proceeding has a clearly-articulated definition, or “business rule,” which sets forth the manner in which the data are to be collected by Verizon, lists any relevant exclusions, and states the applicable performance standards.⁷⁷⁶ The clarity provided by these business rules will help to ensure that the reporting mechanism provides a “benchmark against which new entrants and regulators can measure performance over time to detect and correct any degradation of service rendered to new entrants.”⁷⁷⁷

244. We note that commenters in the first Massachusetts application complained that the PAP lacked sufficient DSL and Line Sharing measurements to deter backsliding in these important areas.⁷⁷⁸ Since that filing, these concerns have been addressed. Specifically, Verizon has added DSL as its own Mode of Entry category and added DSL metrics to the Critical Measures.⁷⁷⁹ Verizon also imported EDI notifier metrics from the New York PAP to the Massachusetts plan (including additional damages).⁷⁸⁰ Although commenters raise a handful of

⁷⁷⁴ See Massachusetts Department of Telecommunications and Energy, *Order Adopting Performance Assurance Plan*, D.T.E. 99-271, Verizon Massachusetts I Application App. B, Vol. 47, Tab 559 at 29-30 (*Massachusetts DTE September 5th Order*); *Massachusetts DTE November 21st Order* at 12-13 (“the contract liability [for Verizon] in Massachusetts is significantly greater than [Verizon’s] contract liability in New York”).

⁷⁷⁵ See, e.g., *Massachusetts DTE November 21st Order* at 6 (ordering Verizon to increase the amount of total bill credits available under the PAP to account for the addition of DSL and Line Sharing metrics).

⁷⁷⁶ See Verizon Massachusetts II Application App. B, Vol. 1, Tab 1, Subtabs A & B (current carrier-to-carrier guidelines).

⁷⁷⁷ *SWBT Kansas/Oklahoma Order* at para. 275.

⁷⁷⁸ See, e.g., ALTS Massachusetts I Comments at iv, 6, 49-51; Covad Massachusetts I Comments at 47-48; Massachusetts I Department of Justice Evaluation at 16 n.58.

⁷⁷⁹ See *Verizon January 30th PAP* at 12-14. MOE categories comprise an element of the PAP designed to gauge Verizon’s performance in broad areas of competitive LEC entry, e.g., UNE, and resale. See Verizon Massachusetts I Guerard/Canny Decl. at 58-59. MOE categories contain a variety of metrics related to that mode of entry and associated bill credits that are paid to all competitive LECs using that mode. The Critical Measurements, on the other hand, consist of 12 groups of metrics that represent key aspects of service, e.g., performance of OSS interfaces and hot cut completions. See *Verizon January 30th PAP* App. B. If Verizon misses the relevant performance standard for any of the 12 groups, it must provide bill credits the competitive LECs who received sub-standard performance. See *id.* at 12-13.

⁷⁸⁰ See *Verizon January 30th PAP* at App. H, 4-7.

additional concerns about specific metrics in the PAP,⁷⁸¹ none of these arguments demonstrate that the PAP is contrary to the public interest or insufficient to prevent backsliding in light of the substantial progress Verizon and the Massachusetts Department have made strengthening the plan since the first application.

245. *Structural Elements of the PAP.* The structural elements of the PAP are designed to detect and sanction poor performance when it occurs. The PAP sets forth, in great detail, the processes by which Verizon's performance is measured and evaluated, the method for determining compliance and noncompliance with respect to individual metrics, and the manner in which noncompliance with individual metrics will translate into bill credits.⁷⁸²

246. *Self-executing mechanism.* The PAP's performance monitoring and enforcement mechanisms are reasonably self-executing and comparable to those the Commission reviewed in the *Bell Atlantic New York Order*, the *SWBT Texas Order*, and the *SWBT Kansas/Oklahoma Order*.⁷⁸³ We reject commenters' claims that the PAP's waiver provisions allow Verizon to escape liability too easily.⁷⁸⁴ In this case, Verizon may ask for a waiver for "unusual" competitive LEC behavior.⁷⁸⁵ When it seeks a waiver, Verizon must provide detailed documentation as to why competitive LEC behavior necessitates the waiver. Verizon, moreover, must prove its case with clear and convincing evidence and provide competitive LECs an opportunity to respond to Verizon's petition. We disagree with commenters, therefore, that the absence of a deadline to act on waivers detracts from the effectiveness of the PAP or undermines its public interest value.

247. *Data Validation and Audit Procedures.* The PAP includes review and monitoring mechanisms that assure the data will be reported in a consistent and reliable manner. The Massachusetts Department has ordered Verizon to obtain an independent audit of Verizon's data and reporting on an annual basis.⁷⁸⁶ The Massachusetts Department will select the auditor and the

⁷⁸¹ See, e.g., ALTS Massachusetts I Comments at 57 (criticizing plan for not including resale flow-through metrics); WorldCom Massachusetts I Comments at 54 (stating that trunking metrics are flawed in definition and weight); WorldCom Massachusetts I Kinard Decl. at 17 (stating that answering time metrics are not useful); WorldCom Massachusetts I Comments at 54 (stating that Average Interval Offered and Completed metrics should be further disaggregated); WorldCom Massachusetts I Comments at 54 (Trouble Duration should be further disaggregated).

⁷⁸² See generally *Verizon January 30th PAP*.

⁷⁸³ See *Bell Atlantic New York Order*, 15 FCC Rcd at 4171, para. 441; *SWBT Texas Order*, 15 FCC Rcd at 18563-64, para. 427; *SWBT Kansas/Oklahoma Order* at para. 277.

⁷⁸⁴ See, e.g., ALTS Massachusetts I Comments at 57 (waiver standard for competitive LEC behavior is too broad); WorldCom Massachusetts I Comments at 56 (no deadline for Massachusetts Department to act on waiver petition and PAP not explicit that Verizon will provide bill credits during pendency of waiver).

⁷⁸⁵ *Verizon January 30th PAP* at 22.

⁷⁸⁶ See *Verizon January 30th PAP* at 25. The first audit will begin six months after Verizon enters the long-distance market in Massachusetts. See *id.*

audit will be subject to the Massachusetts Department's review.⁷⁸⁷ The Massachusetts Department will also conduct an annual review to determine whether changes should be made to improve the PAP.⁷⁸⁸

248. *Accounting Requirements.* Consistent with our accounting rules with respect to antitrust damages and certain other penalties paid by carriers,⁷⁸⁹ Verizon should not reflect any portion of market adjustments as expenses under the revenue requirement for interstate services of the Verizon incumbent LEC. Such accounting treatment ensures that ratepayers do not bear, in the form of increased rates, the cost of market adjustments under the enforcement plan in the event Verizon fails to provide adequate service quality to competitive LECs.⁷⁹⁰

C. Other Issues

249. ALTS and Sprint allege that Verizon mismanaged its responsibility when it was the local numbering administrator and, therefore, granting the application would be in violation of the public interest.⁷⁹¹ These allegations do not convince us that a grant of this application would be inconsistent with the public interest. Specifically, even assuming these allegations are true, they do not undermine our confidence that Verizon's local market is open to competition and will remain so after it receives interLATA authority.⁷⁹²

IX. SECTION 271(D)(6) ENFORCEMENT AUTHORITY

250. Section 271(d)(6) of the Act requires Verizon to continue to satisfy the "conditions required for . . . approval" of its section 271 application after the Commission

⁷⁸⁷ See *id.*

⁷⁸⁸ Verizon January 30th PAP at 24.

⁷⁸⁹ See *Accounting for Judgments and Other Costs Associated with Litigation*, CC Docket No. 93-240, Report and Order, 12 FCC Rcd 5112 (1997); 47 C.F.R. § 32.7370(d). As a general matter, a carrier's operating expenses recovered through its rates must be legitimate costs of providing adequate service to ratepayers. See, e.g., *West Ohio Gas Co. v. PUC*, 294 U.S. 63, 74 (1935); *Mountain States Tel. and Tel. Co. v. FCC*, 939 F.2d 1035, 1044 (D.C. Cir. 1991).

⁷⁹⁰ See *SWBT Kansas/Oklahoma Order* at para. 280. Although the PAP does not explicitly prohibit Verizon from including performance-related damages in its state price cap calculation, the Massachusetts Department states that it will monitor Verizon's accounting of such damages. See *Massachusetts DTE September 5th Order* at 34.

⁷⁹¹ See ALTS Massachusetts I Comments at 52; Sprint Massachusetts II Comments at 11 (stating that Verizon inadequately forecasted the need for area codes and did not optimize the use of numbering resources). Verizon is no longer the numbering administrator. See *In the Matter of Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Services Business*, CC Docket No. 92-237, Order, 14 FCC Rcd 19792 (1999).

⁷⁹² We emphasize that grant of this application *does not* reflect any conclusion that Verizon's conduct in the individual instances cited by commenters is nondiscriminatory and complies with the company's obligations under the Communications Act.

approves its application.⁷⁹³ As the Commission has already described the post-approval enforcement framework and its various section 271(d)(6) enforcement powers in detail in prior orders, it is unnecessary to do so again in this Order.⁷⁹⁴ Working in concert with the Massachusetts Department, we intend to monitor closely Verizon's post-approval compliance for Massachusetts to ensure that Verizon does not "cease[] to meet any of the conditions required for [section 271] approval."⁷⁹⁵ We stand ready to exercise our various statutory enforcement powers quickly and decisively in appropriate circumstances to ensure that the local market remains open in Massachusetts. For example, we expect that Verizon's proposed new processes for LFACS access and pre-order manual loop qualifications will enhance competitors' ability to access loop make-up information in a nondiscriminatory fashion. As stated above, we note that Verizon has established October 2001 as the expected completion date for its system enhancements. We stress that we are prepared to use our authority under section 271(d)(6) if evidence surfaces at a later date that Verizon's OSS have fallen out of compliance with the requirements of the *UNE Remand Order*.

251. The Commission has a responsibility to not only ensure that Verizon is in compliance with section 271 today, but also that it remains in compliance in the future. The Commission will not hesitate to use its enforcement authority after section 271 authority has been granted. In this regard, the Commission will pay particular attention to section 271 checklist items where Verizon's performance was most marginal. For example, like many commenters in this proceeding⁷⁹⁶ and the Department of Justice,⁷⁹⁷ we have serious concerns that repetition of some of the assumptions incorporated into the original Massachusetts Department-approved UNE switching rates may result in rates outside the range that the reasonable application of TELRIC principles would produce. We note that these original rates were significantly higher than those of any other state of comparable population and teledensity,⁷⁹⁸ and there does not appear to have

⁷⁹³ 47 U.S.C. § 271(d)(6).

⁷⁹⁴ *Bell Atlantic New York Order*, 15 FCC Rcd at 4174-77, paras. 446-53; *SWBT Texas Order*, 15 FCC Rcd at 18567-68, paras. 434-36; *SWBT Kansas/Oklahoma Order* at paras. 283-85.

⁷⁹⁵ 47 U.S.C. § 271(d)(6)(A).

⁷⁹⁶ See ASCENT Massachusetts I Comments at 3-6; AT&T Massachusetts I Comments at 2-4; CompTel Massachusetts I Comments at 8-9; Massachusetts Attorney General's Massachusetts I Comments at 3-8; RNK Massachusetts I Comments at 2-3; WorldCom Massachusetts I Comments at 9-25, 28-33; AT&T Massachusetts I Reply at 8-23; Massachusetts Attorney General's Massachusetts I Reply at 7; WorldCom Massachusetts I Reply at 5-10. WorldCom and AT&T questioned specific inputs used in the cost studies to set UNE rates in Massachusetts, including whether Verizon misrepresented the discount it receives from vendors for new switches, and whether an inflated cost of capital was used. See WorldCom Massachusetts I Comments at 12-25; WorldCom Massachusetts II Comments at 15-18; WorldCom Massachusetts II Frentrup Decl. at paras. 2-28; AT&T Massachusetts I Reply at 12-24; AT&T Massachusetts II Comments at 6-11.

⁷⁹⁷ In its evaluation of Verizon's Massachusetts I Application, the Department of Justice expressed concern over UNE prices, saying that "there are reasons to suspect that in some cases [certain UNE] prices have not been based on the relevant costs of the network elements." Department of Justice Massachusetts I Evaluation at 19.

⁷⁹⁸ Based on WorldCom's usage assumptions, Verizon's original rate in Massachusetts for the per-line, per-month cost for switching (excluding the line port cost), transport, and signaling, was \$21.68. By comparison, (continued....)

been any justification for such significant differences based on Massachusetts-specific technological, environmental, regulatory, and economic conditions. The original cost study used to set those rates has a number of potential flaws that, if repeated without justification, could result in UNE rates that warrant enforcement action. These include the size of switch discounts that it assumed would be available from vendors, the use of an installation factor (the cost to install a switch) that was based on installation costs relative to discounted switches but applied to undiscounted switches, a cost of capital in excess of the authorized rate of return in Massachusetts and higher than any other state in Verizon's territory with nothing on the record to justify a Massachusetts-specific difference, and an inappropriate busy hour conversion factor.⁷⁹⁹ Because states have considerable flexibility in setting UNE rates, certain flaws in a cost study, by themselves, may not result in rates that are outside the reasonable range that a correct application of our TELRIC rules would produce. Collectively, however, the number of possible flaws in the original cost study, if repeated without adequate state-specific justification, may well result in prices outside the reasonable range of what TELRIC would produce. The Massachusetts Department is currently examining all UNE prices in its five-year UNE rate review. We presume, as we do with all state commissions, that the Massachusetts Department will set UNE rates within the range of what a reasonable application of what TELRIC would produce. We observe that in any context in which prices are not set in accordance with our rules and the Act, we retain the ability to take appropriate enforcement action, including action pursuant to section 271(d)(6), and will not hesitate to do so.⁸⁰⁰

252. Consistent with prior section 271 orders, we require Verizon to report to the Commission all Massachusetts carrier-to-carrier performance metrics results and Performance Assurance Plan monthly reports beginning with the first full month after the effective date of this Order, and for each month thereafter for one year unless extended by the Commission or Chief of the Enforcement Bureau. These results and reports will allow us to review, on an on-going basis, Verizon's performance to ensure continued compliance with the statutory requirements. We are confident that cooperative state and federal oversight and enforcement can address any

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Verizon's state-approved rates in New York and Pennsylvania and state-approved rates in Texas, Kansas, Oklahoma, and Michigan are \$10.60 in New York, \$5.02 in Pennsylvania, \$4.17 in Texas, \$4.23 in Kansas, \$5.47 in Oklahoma, and \$1.97 in Michigan. Verizon's original Massachusetts rates thus exceeded the rates for these elements by 105 percent in New York, 332 percent in Pennsylvania, 420 percent in Texas, 413 percent in Kansas, 296 percent in Oklahoma, and 1,001 percent in Michigan. *See* Letter from Keith L. Seat, Senior Counsel, Federal Law and Public Policy, WorldCom, to Magalie Roman Salas, Secretary, Federal Communications Commission, CC Docket No. 01-9 at 13 (Jan. 31, 2001) (WorldCom Jan. 31 UNE Pricing Ex Parte Letter); *see also* WorldCom Massachusetts I Comments at 27-28, App. A, Joint Declaration of Patricia Proferes, John Nolan, Paul Bobeczko, and Thomas Graham at paras. 27-29 and Attach. 2.

⁷⁹⁹ *See* WorldCom Massachusetts I Comments at 12-25; AT&T Massachusetts I Reply at 12-23; AT&T Massachusetts II Comments at 9-11; AT&T Massachusetts II Reply at 4-5; WorldCom Massachusetts II Frentrup Decl. at 3-15.

⁸⁰⁰ *See* 47 U.S.C. § 271(d)(6).

backsliding that may arise with respect to Verizon's entry into the Massachusetts long distance market.⁸⁰¹

X. CONCLUSION

253. For the reasons discussed above, we grant Verizon's application for authorization under section 271 of the Act to provide in-region, interLATA services in the state of Massachusetts.

XI. ORDERING CLAUSES

254. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 4(j), and 271 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j) and 271, Verizon's application to provide in-region, interLATA service in the state of Massachusetts, filed on January 16, 2001, IS GRANTED.

⁸⁰¹ See, e.g., *Bell Atlantic-New York, Authorization Under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of New York, File No. EB-00-IH-0085*, Order, 15 FCC Rcd 5413 (2000) (adopting consent decree between Commission and Bell Atlantic that included provisions for Bell Atlantic to make a voluntary payment of \$3,000,000 to the United States Treasury, additional payments if Bell Atlantic failed to meet specified performance standards, and weekly reporting requirements to gauge Bell Atlantic's performance in correcting the problems associated with its electronic ordering systems).

255. IT IS FURTHER ORDERED that this Order SHALL BECOME EFFECTIVE April 26, 2001.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas,
Secretary

APPENDIX A
List of Commenters

**Verizon New England Inc., et al., Section 271 Application to
Provide In-Region InterLATA Services in Massachusetts**

CC Docket No. 01-9

Comments

Commenters:

A.R.C. Networks, Inc.
Association for Local Telecommunications Services (ALTS); XO Communications, Inc., & Focal
Communications Corporation (filing jointly)
Association of Communications Enterprises
AT&T Corp.
Commercial Internet Exchange Association
Competitive Telecommunications Association (CompTel)
Conversent Communications of Massachusetts, L.L.C.
Covad Communications Company
Fiber Technologies
Global Crossing North America, Inc.
Global NAPS, Inc.
Massachusetts Attorney General
Massachusetts Coalition for Competitive Phone Service
Network Access Solutions
New England Public Communications Council, Inc.
NOBLE (North of Boston Library Exchange, Inc.)
RCN BecoCom, L.L.C.
Rhythms Netconnections Inc.
Sprint Communications Company L.P.
Telecommunications Advocacy Project
Winstar Communications, Inc.
WorldCom, Inc.

**Verizon New England Inc., et al., Section 271 Application to
Provide In-Region InterLATA Services in Massachusetts**

CC Docket No. 01-9

Reply Comments

Commenters:

AT&T Corp.

Commercial Internet Exchange Association

Competition Policy Institute

Covad Communications Company

Massachusetts Attorney General's Office

Massachusetts Department of Telecommunications & Energy

Network Access Solutions

United States Internet Provider Alliance

Verizon New England

Winstar Communications, Inc.

WorldCom, Inc.

**Verizon New England Inc., et al., Section 271 Application to
Provide In-Region InterLATA Services in Massachusetts****CC Docket No. 00-176****Comments**

Commenters:

Affiliated Chambers of Commerce of Greater Springfield, Inc.
Alliance for Education
Alliance for Public Technology
Arts Boston
Association of Communications Enterprises
Association for Local Telecommunications Services (ALTS)
AT & T Corp.
BCNC (Business in Partnership with the Community)
Blackstone valley Vocational Regional School District
Boston Partners in Education
Boston Private Industry Council
Boston Public Schools
Bristol Workforce Investment Board
Cape and Islands United Way
Cape Cod Technology Council, Inc.
Century 21
Chinatown Business Association
Chemetal
City of Boston, MA, Office of the Mayor
City of Brockton, MA, Office of the Mayor
City of Chelsea, MA
City of Fall River, MA
City of Haverhill, Haverhill, MA
City of Marlborough, MA, Office of the Mayor
City of Melrose, MA, Office of the Mayor
City of New Bedford, Office of the Mayor
City of Taunton, MA, Office of the Mayor
City of Taunton, MA, Mayor's Office of Economic Development
Communica
Competitive Telecommunications Association
CONQUEST, Inc.
Consulado General de la Republica Dominicana
Covad
Diane Davis Associates
Florence Paint & Decorating Center, Inc.
Frank M. Hynes, State Representative

Greater New Bedford Workforce investment Board, Inc.
Haddad Electronic Supply Inc.
Hispanic-American Chamber of Commerce
Immigrant Learning Center
Just a Start Corporation
Keep America Connected, et al.
League of Latin American Citizens
Lynn Area Chamber of Commerce
Martin L. King, Jr. Business Empowerment Center
Massachusetts Attorney General
Massachusetts House of Representatives
Massachusetts Department of Telecommunications & Energy
Massachusetts Rural Development Council, Inc.
MATP Center (Massachusetts Assistive Technology Partnership Center)
Mentor
Merrimack Valley Economic Development Council, Inc.
MetroWest Chamber of Commerce
National Association for the Advancement of Colored People, Washington Bureau
National Association of Partners in Education
National Black Chamber of Commerce, et al.
National Congress for Puerto Rican Rights
NECLEC, LLC
Network Access Solutions Corporation
New Networks Institute
Northern Essex Community College
Onsite Access Local, L.L.C.
Organizations Concerned About Rural Education (OCRE)
Plymouth Area Chamber of Commerce
Puerto Rican Cultural Center
Puerto Rico Federal Affairs Administration
Public Schools of Springfield, MA
Rainbow Push Coalition
RCN BecoCom, L.L.C.
RNK Inc. d/b/a RNK Telecom
Regional Employment Board of Hampden County, Inc.
Rhythms Netconnections Inc.
Saunders Hotel Group
Shepley Wood Products, Inc.
Southern Essex Workforce Investment Board
Springfield Bilingual Veteran's Outreach Center
Sprint Communications Company L.P.
Stanton Insurance Agency, Inc.
Stik-II Products
Telecommunications Insight Group
Telecommunications Research and Action Center (TRAC)
The October Company, Inc.

The Lowell Plan
Thomas J. O'Brien, State Representative
Town of Braintree, MA
Town of Burlington, MA
Town of Cohasset, MA
Town of Randolph, MA
Town of Scituate, MA
United Seniors Health Cooperative
University of Massachusetts, Boston
Urban League of Eastern Massachusetts Inc.
Vinny deMacedo, State Representative
Waltham West Suburban Chamber of Commerce
Wellesley Chamber of Commerce, Inc.
Winstar Communications, Inc.
Worcester Area Chamber of Commerce
WorldCom, Inc.
World Institute on Disability, et al.
Z-Tel Communications, Inc.

**Verizon New England Inc., et al., Section 271 Application to
Provide In-Region InterLATA Services in Massachusetts**

CC Docket No. 00-176

Reply Comments

Commenters:

Alliance for Public Technology
Allegiance Telecom of Massachusetts, Inc.
AT&T Corp.
Covad
Digital Broadband Communications, Inc.
Fiber Technologies, Inc.
Keep America Connected, et al.
Massachusetts Attorney General
Massachusetts Department of Telecommunications & Energy
National Consumers League
RCN BecoCom
Rhythms NetConnections Inc.
Telecommunications Research & Action Center (TRAC)
Verizon
Winstar Communications, Inc.
WorldCom, Inc.

Appendix B

Statutory Requirements – Checklist Items 6-12

1. *Checklist Item 6 – Unbundled Local Switching.* Section 271(c)(2)(B)(ix) requires BOCs to provide “[l]ocal switching unbundled from transport, local loop transmission, or other services.”¹ To satisfy its obligations under this subsection, an applicant must demonstrate compliance with the Commission rules effective as of the date of the application relating to unbundled local switching, most of which are set forth in detail in our prior section 271 orders.² The Commission revised these rules in the *UNE Remand Order*, which was released on November 5, 1999. That order generally retained the unbundling obligations for local switching while narrowing the scope of obligation for certain geographic areas.³ In the *UNE Remand Order*, the Commission required that incumbent LECs need not provide access on an unbundled basis to packet switching except in certain limited situations.⁴

2. *Checklist Item 7 – 911/E911 Access and Directory Assistance/Operator Services.* Section 271(c)(2)(B)(vii) of the Act requires a BOC to provide “[n]ondiscriminatory access to – (I) 911 and E911 services.”⁵ In the *Ameritech Michigan Order*, the Commission found that “section 271 requires a BOC to provide competitors access to its 911 and E911 services in the same manner that a BOC obtains such access, *i.e.*, at parity.”⁶ Specifically, the Commission found that a BOC “must maintain the 911 database entries for competing LECs with the same accuracy and reliability that it maintains the database entries for its own customers.”⁷ For facilities-based carriers, the BOC must provide “unbundled access to [its] 911 database and 911 interconnection, including the provision of dedicated trunks from the requesting carrier’s switching facilities to the 911 control office at parity with what [the BOC] provides to itself.”⁸ Section 271(c)(2)(B)(vii)(II) and section 271(c)(2)(B)(vii)(III) require a BOC to provide

¹ 47 U.S.C. § 271(c)(2)(B)(vi); *see also SWBT Texas order*, 15 FCC Rcd at 18520, para. 336; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20722.

² *See SWBT Texas Order*, 15 FCC Rcd at 18520-22, paras. 336-38; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20772, para. 207.

³ *UNE Remand Order*, 15 FCC Rcd at 3822-32, paras. 276-99 (limiting an incumbent LEC’s general duty to unbundle circuit switching when a requesting telecommunications carrier serves end users in the top 50 MSAs, in Density Zone, with four or more voice grade lines, provided that such LEC provides access to EELs)

⁴ *UNE Remand Order*, 15 FCC Rcd at 3838-3919.

⁵ 47 U.S.C. § 271(c)(2)(B)(vii).

⁶ *Ameritech Michigan Order*, 12 FCC Rcd at 20679, para. 256.

⁷ *Id.*

⁸ *Id.*

nondiscriminatory access to “directory assistance services to allow the other carrier’s customers to obtain telephone numbers” and “operator call completion services,” respectively.⁹ Section 251(b)(3) of the Act imposes on each LEC “the duty to permit all [competing providers of telephone exchange service and telephone toll service] to have nondiscriminatory access to . . . operator services, directory assistance, and directory listing, with no unreasonable dialing delays.”¹⁰ The Commission concluded in the *Second BellSouth Louisiana Order* that a BOC must be in compliance with the regulations implementing section 251(b)(3) to satisfy the requirements of sections 271(c)(2)(B)(vii)(II) and 271(c)(2)(B)(vii)(III).¹¹ In the *Local Competition Second Report and Order*, the Commission held that the phrase “nondiscriminatory access to directory assistance and directory listings” means that “the customers of all telecommunications service providers should be able to access each LEC’s directory assistance service and obtain a directory listing on a nondiscriminatory basis, notwithstanding: (1) the identity of a requesting customer’s local telephone service provider; or (2) the identity of the telephone service provider for a customer whose directory listing is requested.”¹² The Commission concluded that

⁹ 47 U.S.C. §§ 271(c)(2)(B)(vii)(II), (III).

¹⁰ 47 U.S.C. § 251(b)(3). The Commission implemented section 251(b)(3) in the *Local Competition Second Report and Order*. 47 C.F.R. § 51.217; *In re Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19392 (1996) (*Local Competition Second Report and Order*) vacated in part, *People of the State of California v. FCC*, 124 F.3d 934 (8th Cir. 1997), overruled in part, *AT&T Corp. v. Iowa Utils. Bd.*, 119 S. Ct. 721 (1999); see also *Implementation of the Telecommunications Act of 1996: Provision of Directory Listings Information under the Telecommunications Act of 1934*, Notice of Proposed Rulemaking, 14 FCC Rcd 15550 (1999) (*Directory Listings Information NPRM*).

¹¹ While both sections 251(b)(3) and 271(c)(2)(B)(vii)(II) refer to nondiscriminatory access to “directory assistance,” section 251(b)(3) refers to nondiscriminatory access to “operator services,” while section 271(c)(2)(B)(vii)(III) refers to nondiscriminatory access to “operator call completion services.” 47 U.S.C. §§ 251(b)(3), 271(c)(2)(B)(vii)(III). The term “operator call completion services” is not defined in the Act, nor has the Commission previously defined the term. However, for section 251(b)(3) purposes, the term “operator services” was defined as meaning “any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call.” *Local Competition Second Report and Order*, 11 FCC Rcd at 19448, para. 110. In the same order the Commission concluded that busy line verification, emergency interrupt, and operator-assisted directory assistance are forms of “operator services,” because they assist customers in arranging for the billing or completion (or both) of a telephone call. *Id.* at 19449, para. 111. All of these services may be needed or used to place a call. For example, if a customer tries to direct dial a telephone number and constantly receives a busy signal, the customer may contact the operator to attempt to complete the call. Since billing is a necessary part of call completion, and busy line verification, emergency interrupt, and operator-assisted directory assistance can all be used when an operator completes a call, the Commission concluded in the *Second BellSouth Louisiana Order* that for checklist compliance purposes, “operator call completion services” is a subset of or equivalent to “operator service.” *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20740, n.763. As a result, we use the nondiscriminatory standards established for operator services to determine whether nondiscriminatory access is provided.

¹² 47 C.F.R. § 51.217(c)(3); *Local Competition Second Report and Order*, 11 FCC Rcd at 19456-58, paras. 130-35. The *Local Competition Second Report and Order*’s interpretation of section 251(b)(3) is limited “to access to each LEC’s directory assistance service.” *Id.* at 19456, para. 135. However, section 271(c)(2)(B)(vii) is not (continued....)

nondiscriminatory access to the dialing patterns of 4-1-1 and 5-5-5-1-2-1-2 to access directory assistance were technically feasible, and would continue.¹³ The Commission specifically held that the phrase "nondiscriminatory access to operator services" means that ". . . a telephone service customer, regardless of the identity of his or her local telephone service provider, must be able to connect to a local operator by dialing '0,' or '0 plus' the desired telephone number."¹⁴

3. Competing carriers may provide operator services and directory assistance by either reselling the BOC's services or by using their own personnel and facilities to provide these services. Our rules require BOCs to permit competitive LECs wishing to resell the BOC's operator services and directory assistance to request the BOC to brand their calls.¹⁵ Competing carriers wishing to provide operator services or directory assistance using their own facilities and personnel must be able to obtain directory listings *either* by obtaining directory information on a "read only" or "per dip" basis from the BOC's directory assistance database, or by creating their own directory assistance database by obtaining the subscriber listing information in the BOC's database.¹⁶ Although the Commission originally concluded that BOCs must provide directory assistance and operator services on an unbundled basis pursuant to sections 251 and 252, the Commission removed directory assistance and operator services from the list of required unbundled network elements in the *Local Competition Third Report and Order*.¹⁷ Checklist item obligations that do not fall within a BOC's obligations to provide unbundled network elements are not subject to the requirements of sections 251 and 252, including the requirement that rates be

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limited to the LEC's systems but requires "nondiscriminatory access to . . . directory assistance to allow the other carrier's customers to obtain telephone numbers." 47 U.S.C. § 271(c)(2)(B)(vii). Combined with the Commission's conclusion that "incumbent LECs must unbundle the facilities and functionalities providing operator services and directory assistance from resold services and other unbundled network elements to the extent technically feasible," *Local Competition First Report and Order*, 11 FCC Rcd at 15772-73, paras. 535-37, section 271(c)(2)(B)(vii)'s requirement should be understood to require the BOCs to provide nondiscriminatory access to the directory assistance service provider selected by the customer's local service provider, regardless of whether the competitor; provides such services itself; selects the BOC to provide such services; or chooses a third party to provide such services. *See Directory Listings Information NPRM*.

¹³ *Local Competition Second Report and Order*, 11 FCC Rcd at 19464, para. 151.

¹⁴ *Id.* at para. 112.

¹⁵ 47 C.F.R. § 51.217(d); *Local Competition Second Report and Order*, 11 FCC Rcd at 19463, para. 148. For example, when customers call the operator or calls for directory assistance, they typically hear a message, such as "thank you for using XYZ Telephone Company." Competing carriers may use the BOC's brand, request the BOC to brand the call with the competitive carriers name or request that the BOC not brand the call at all. 47 C.F.R. § 51.217(d).

¹⁶ 47 C.F.R. § 51.217(C)(3)(ii); *Local Competition Second Report and Order*, 11 FCC Rcd at 19460-61, paras. 141-44.

¹⁷ *UNE Remand Order*, 15 FCC Rcd at 3891-92, paras. 441-42.

based on forward-looking economic costs.¹⁸ Checklist item obligations that do not fall within a BOC's UNE obligations, however, still must be provided in accordance with sections 201(b) and 202(a), which require that rates and conditions be just and reasonable, and not unreasonably discriminatory.¹⁹

4. *Checklist Item 8 – White Pages Directory Listing.* Section 271(c)(2)(B)(viii) of the Act requires a BOC to provide “[w]hite pages directory listings for customers of the other carrier’s telephone exchange service.”²⁰ Section 251(b)(3) of the Act obligates all LECs to permit competitive *providers* of telephone exchange service and telephone toll service to have nondiscriminatory access to directory listings.²¹ In the *Second BellSouth Louisiana Order*, the Commission found that a BOC satisfies the requirements of checklist item 8 by demonstrating that it: (1) provided nondiscriminatory appearance and integration of white page directory listings to competitive LEC’s customers; and (2) provided white page listings for competitors’ customers with the same accuracy and reliability that it provides its own customers.²²

5. *Checklist Item 9 – Numbering Administration.* Section 271(c)(2)(B)(ix) of the Act requires a BOC to provide “nondiscriminatory access to telephone numbers for assignment to the other carrier’s telephone *exchange* service customers,” until “the date by which telecommunications numbering administration, guidelines, plan, or rules are established.”²³ The checklist mandates compliance with “such guidelines, plan, or rules” after they have been established.²⁴ A BOC must demonstrate that it adheres to industry numbering administration guidelines and Commission rules.²⁵

¹⁸ *Local Competition Third Report and Order* at para. 470. *See generally* 47 U.S.C. §§ 251-52; *see also* 47 U.S.C. § 252(d)(1)(A)(i) (requiring UNE rates to be “based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the ... network element”).

¹⁹ *Local Competition Third Report and Order* at paras. 470-73; *see also* 47 U.S.C. §§ 201(b), 202(a).

²⁰ 47 U.S.C. § 271(c)(2)(B)(viii).

²¹ 47 U.S.C. § 251(b)(3). In the *Second BellSouth Louisiana Order*, the Commission concluded that, “consistent with the Commission’s interpretation of ‘directory listing’ as used in section 251(b)(3), the term ‘white pages’ in section 271(c)(2)(B)(viii) refers to the local alphabetical directory that includes the residential and business listings of the customers of the local exchange providers.” *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20748, para. 255. The Commission further concluded, “the term ‘directory listing,’ as used in this section, includes, at a minimum the subscriber’s name, address, telephone number, or any combination thereof.” *Id.*

²² *Id.*

²³ 47 U.S.C. § 271(c)(2)(B)(ix).

²⁴ *Id.*

²⁵ *See Second Bell South Louisiana Order*, 13 FCC Rcd at 20752; *see also Numbering Resource Optimization, Report and Order and Further Notice of Proposed Rulemaking*, 15 FCC Rcd 7574 (2000); *Numbering Resource* (continued....)

6. *Checklist Item 10 – Databases and Associated Signaling.* Section 271(c)(2)(B)(x) of the Act requires a BOC to provide “nondiscriminatory access to databases and associated signaling necessary for call routing and completion.”²⁶ In the *Second BellSouth Louisiana Order*, the Commission required BellSouth to demonstrate that it provided requesting carriers with nondiscriminatory access to: “(1) signaling networks, including signaling links and signaling transfer points; (2) certain call-related databases necessary for call routing and completion, or in the alternative, a means of physical access to the signaling transfer point linked to the unbundled database; and (3) Service Management Systems (SMS).”²⁷ The Commission also required BellSouth to design, create, test, and deploy Advanced Intelligent Network (AIN) based services at the SMS through a Service Creation Environment (SCE).²⁸ In the *Local Competition First Report and Order*, the Commission defined call-related databases as databases, other than operations support systems, that are used in signaling networks for billing and collection or the transmission, routing, or other provision of telecommunications service.²⁹ At that time the Commission required incumbent LECs to provide unbundled access to their call-related databases, including but not limited to: the Line Information Database (LIDB), the Toll Free Calling database, the Local Number Portability database, and Advanced Intelligent Network databases.³⁰ In the *UNE Remand Order*, the Commission clarified that the definition of call-related databases “includes, but is not limited to, the calling name (CNAM) database, as well as the 911 and E911 databases.”³¹

7. *Checklist Item 11 – Number Portability.* Section 271(c)(2)(B) of the Act requires a BOC to comply with the number portability regulations adopted by the Commission pursuant to section 251.³² Section 251(b)(2) requires all LECs “to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the Commission.”³³ The Act defines number portability as “the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without *impairment* of quality, reliability, or

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Optimization, Second Report and Order, Order on Reconsideration in CC Docket No. 99-200 and Second Further Notice of Proposed Rulemaking in CC Docket No. 99-200, CC Docket Nos. 96-98; 99-200 (rel. Dec. 29, 2000).

²⁶ 47 U.S.C. § 271(c)(2)(B)(x).

²⁷ *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20753, para. 267.

²⁸ *Id.* at 20755-56, para. 272.

²⁹ *Local Competition First Report and Order*, 11 FCC Rcd at 15741, n.1126; *UNE Remand Order*, 15 FCC Rcd at 3875, para. 403.

³⁰ *Local Competition First Report and Order*, 11 FCC Rcd at 15741-42, para. 484.

³¹ *UNE Remand Order*, 15 FCC Rcd at 3875, para. 403.

³² 47 U.S.C. § 271(c)(2)(B)(xii).

³³ *Id.* § 251(b)(2).

convenience when switching from one telecommunications carrier to another.”³⁴ In order to prevent the cost of number portability from thwarting local competition, Congress enacted section 251(e)(2), which requires that “[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission.”³⁵ Pursuant to these statutory provisions, the Commission requires LECs to offer interim number portability “to the extent technically feasible.”³⁶ The Commission also requires LECs to gradually replace interim number portability with permanent number portability.³⁷ The Commission has established guidelines for states to follow in mandating a competitively neutral cost-recovery mechanism for interim number portability,³⁸ and created a competitively neutral cost-recovery mechanism for long-term number portability.³⁹

8. *Checklist Item 12 – Local Dialing Parity.* Section 271(c)(2)(B)(xii) requires a BOC to provide “[n]ondiscriminatory access to such services or information as are necessary to allow the requesting carrier to implement *local* dialing parity in accordance with the requirements of section 251(b)(3).”⁴⁰ Section 251(b)(3) imposes upon all LECs “[t]he duty to provide dialing

³⁴ *Id.* § 153(30).

³⁵ *Id.* § 251(e)(2); *see also* *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20757, para. 274; *In the Matter of Telephone Number Portability*, Third Report and Order, 13 FCC Rcd 11701, 11702-04 (1998) (*Third Number Portability Order*); *In the Matter of Telephone Number Portability*, Fourth Memorandum Opinion and Order on Reconsideration, CC Docket No. 95-116, at paras. 1, 6-9 (Jun. 23, 1999) (*Fourth Number Portability Order*).

³⁶ *Fourth Number Portability Order* at para. 10; *In re Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8409-12, paras. 110-116 (1996) (*First Number Portability Order*); *see also* 47 U.S.C. § 251(b)(2).

³⁷ *See* 47 C.F.R. §§ 52.3(b)-(f); *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20758, para. 275; *First Number Portability Order*, 11 FCC Rcd at 8355 and 8399-8404, paras. 3 and 91; *Third Number Portability Order*, 13 FCC Rcd at 11708-12, paras. 12-16.

³⁸ *See* 47 C.F.R. § 52.29; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20758, para. 275; *First Number Portability Order*, 11 FCC Rcd at 8417-24, paras. 127-140.

³⁹ *See* 47 C.F.R. §§ 52.32, 52.33; *Second BellSouth Louisiana Order*, 13 FCC Rcd at 20758, para. 275; *Third Number Portability Order*, 13 FCC Rcd at 11706-07, para. 8; *Fourth Number Portability Order* at para. 9.

⁴⁰ Based on the Commission’s view that section 251(b)(3) does not limit the duty to provide dialing parity to any particular form of dialing parity (*i.e.*, international, interstate, intrastate, or local), the Commission adopted rules in August 1996 to implement broad guidelines and minimum nationwide standards for dialing parity. *Local Competition Second Report and Order*, 11 FCC Rcd at 19407; *Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket No. 95-185, Further Order On Reconsideration, FCC 99-170 (rel. July 19, 1999).

parity to competing providers of telephone exchange service and telephone toll service with no unreasonable dialing delays.”⁴¹ Section 153(15) of the Act defines “dialing parity” as follows:

[A] person that is not an affiliate of a local exchange carrier is able to provide telecommunications services in such a manner that customers have the ability to route automatically, without the use of any access code, their telecommunications to the telecommunications services provider of the customer’s designation⁴²

9. Our rules implementing section 251(b)(3) provide that customers of competing carriers must be able to dial the same number of digits the BOC’s customers dial to complete a local telephone call.⁴³ Moreover, customers of competing carriers must not otherwise suffer inferior quality service, such as unreasonable dialing delays, compared to the BOC’s customers.⁴⁴

⁴¹ 47 U.S.C. § 251(b)(3).

⁴² *Id.* at § 153(15).

⁴³ 47 C.F.R §§ 51.205, 51.207.

⁴⁴ See 47 C.F.R. § 51.207 (requiring same number of digits to be dialed); *Local Competition Second Report and Order*, 11 FCC Rcd at 19400, 19403.

SEPARATE STATEMENT OF CHAIRMAN MICHAEL K. POWELL

Re: Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) and Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts (CC Docket No. 01-9)

I write separately to explain the bases upon which I support this *Order*, which approves an application by Verizon to provide in-region, interLATA service in Massachusetts, pursuant to section 271 of the Telecommunications Act of 1996.

There was a time when the Commission's interpretation of section 271 was so fluid that it was difficult to ascertain precisely what was required of a Bell Company to enable it to attain approval to enter the long distance market. The Commission was criticized for "hiding the ball" in that, in the face of undeniably weak applications, we declined to provide guidance regarding what we would find to be a persuasive showing of compliance with the statutory "competitive checklist."

Under the stewardship of the previous Chairman, however, the Commission concertedly labored to provide more detailed guidance, notwithstanding the strict limitations imposed on our deliberations by the 90-day statutory deadline for approving or rejecting section 271 applications. The fruits of this effort have been that, of the more than five years in which we have been responsible for implementing section 271, we have adopted all five approval orders only in the last 16 months. This cluster of recent approvals (which were supported by all of my present colleagues) is, in my view, the result of simple logic: without a clear explanation of what they needed to do to gain section 271 approval, Bell Companies lacked adequate incentives and ability to do what this provision intended, namely, open local markets in exchange for entry into the in-region, interLATA telecommunications market.

But future applicants and other interested parties are admonished that, even after more than a year of applying a standard that provides section 271 applicants the guidance they need to succeed, the Commission will continue to apply the same rigor it always has to these questions. It is not overstating matters to point out that the legal and policy questions encompassed by these proceedings are extraordinarily complex and, most often, close questions must be resolved. As such, there still will be times when the Commission receives an application that either fails to meet the demanding standard outlined in our precedent, or fails based on questions that surface for the first time.

With respect to the application before us, though it has some weaknesses, I believe it is consistent with our precedent and merits approval. The central concern with this application is the rate Verizon offers for switching. It is clearly higher than those we have seen in some other states. Our task under the checklist, however, is to ensure that whatever rates are offered are "cost-based" and the product of a forward-looking methodology (*i.e.*, TELRIC). In evaluating section 271 applications, the Commission does not conduct completely independent rate

proceedings. Thus, we are left to examine whether a state commission demonstrates intent and some ability to use the appropriate methodology, and whether the rates ultimately relied on in the application are within the range that a reasonable application of TELRIC principles would produce.

Here, Verizon relies on a switching rate lower than that set by the Massachusetts Department, recognizing the Commission's concern that the state-set rate might not be appropriately cost-based. Verizon chose simply to offer a switching rate similar to that we approved in New York. In the *Bell Atlantic New York Order*, we found this rate to be consistent with the cost-based methods we require. Given that, I believe we are constrained to approve the rate unless we find it unquestionably clear that the rate is not built on the proper TELRIC foundation. In contrast, opponents of this application argue that we should not rely on the New York rate, because the New York Commission is on the verge of revising it, having found an arguable input error in its previous methodology. It is alleged that this revision will result in a substantially lower rate and thus we should not endorse the current rate for Massachusetts.

This is not an idle concern, for we recognize the importance of cost-based rates to new entrants hoping to enter the incumbent's local market. I must conclude, however, that we cannot properly reject an application from one state that is consistent with precedent, on the basis of speculation regarding the outcome of another state's future rate proceeding. We cannot know with sufficient certainty what will be the full impact on the rates of that future proceeding, even if it is generally accepted that the rate is likely to be lower. Nor can we, on this record and within the constraints of this 90-day proceeding, conduct our own *de novo* evaluation of these switching rates, so as to revise our prior decision. Moreover, I cannot agree that we should, as a prior condition of approving this application, compel Verizon (through formal or informal means) to mirror its Massachusetts rates with any revisions that occur in New York. Taking such action now, as a condition of approval, would impermissibly subject the Massachusetts Department to the regulatory actions of another state and might well interfere with the Department's ongoing ratemaking proceedings.

That said, approval today does not forever insulate the switching rate Verizon has successfully proffered in this application. If New York in fact revises its rates downward after concluding that its prior determinations were not soundly cost-based, neither Verizon nor anyone else could properly rely in future applications on the rates we approved in the *Bell Atlantic New York Order* without new substantiation. Furthermore, depending on the scope of the New York Commission's upcoming decision on rates, this Commission might determine that Verizon has subsequently "ceased to meet [one] of the conditions required for [section 271] approval," thereby empowering us to take remedial action under section 271(d)(6). Thus, there may be situations after the New York Commission rules in which I would support taking action that would have the practical effect of requiring Verizon to find a new cost-based rate for switching for a few months until the Massachusetts Department resets its rates. I have full confidence that the Massachusetts Department will take account of New York's experience, as well as carefully ensure that any rates it chooses are based on sound TELRIC methodology, as described in this and prior Commission orders.

For these reasons and with these caveats, I support adoption of this section 271 application. I wish to thank, in particular, the Massachusetts Department, the Department of Justice and our tireless Common Carrier Bureau staff for their exemplary skill, drive and stamina in bringing this *Order* to fruition.

**SEPARATE STATEMENT OF
COMMISSIONER SUSAN NESS**

Re: Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) and Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts (CC Docket No. 01-9)

Notwithstanding serious reservations about Verizon New England's pricing of unbundled network elements, I vote to approve this application to provide long-distance services in Massachusetts. On balance, I believe that Massachusetts consumers will benefit from heightened competition in both the long distance and local markets. Although I vote for this order with some trepidation, I am optimistic that this Commission and the Massachusetts Department of Telecommunications and Energy (DTE) will maintain vigilance to ensure that the market-opening requirements mandated by Congress continue to be met.

Enduring competition in the local market will only take root and thrive if we and our state colleagues rigorously pursue cost-based pricing. Indeed, pricing is at the very core of the statutory framework Congress constructed to eliminate economic barriers to entry in all telecommunications markets. The use of a forward-looking methodology -- with a reasonable risk-adjusted return to incumbents -- promotes fair and efficient competition.

Since the earliest 271 applications, the Commission has made clear that we must make an independent determination that the rates are based on forward-looking costs -- a statutory responsibility that the Commission diligently undertook in the recent *SWBT Kansas/Oklahoma Order*.¹ Today's decision squarely reaffirms this obligation.

Our independent evaluation shows that the original switching rates adopted by the Massachusetts DTE were substantially higher than other states and not within a range of prices that would be consistent with forward-looking principles. With average consumer usage, the per month costs for switching, transport, and signaling would have been \$21.68 in Massachusetts -- more than double the rate in New York and more than 300 percent above the rates in numerous other states in Verizon's territory and across the country. I would not have approved an application that was based upon such rates absent compelling evidence that switching costs in Massachusetts should differ so extraordinarily from those in other states.

The order permits Verizon to rely on current switching rates from New York -- a neighboring state with similar cost characteristics -- to prove compliance with the statutory requirements. I have significant misgivings about this approach. The rates adopted in New York are several years old and are under active review by the New York Commission with a true-up

¹ See, e.g., *Ameritech Michigan Order*, 12 FCC Rcd 20543, 20694-701; *SWBT Kansas/Oklahoma Order* at paras. 47-102.

after it completes its review. As noted above, since our approval of Verizon's New York application, other states have adopted switching rates that are significantly lower than those in New York. Reluctantly, I am compelled to support the decision to grant this application because the rates that were approved by the New York Commission -- and evaluated by this Commission -- are presently in effect and there is insufficient evidence in the record *at this time* to determine that those rates are inconsistent with forward-looking principles.

Today's order correctly recognizes, however, that rates will evolve over time to reflect changed market conditions, new technologies, and updated information on cost inputs. Parties should be forewarned that they should not rely on outdated rates in future applications. Moreover, depending on the New York Commission's decision, Verizon's reliance on the present rates to demonstrate continuing compliance in Massachusetts may be undermined. If the New York Commission orders lower rates after determining that the present rates are not cost-based and Verizon does not revise its rates in Massachusetts, the FCC should use its section 271(d)(6) authority to suspend or revoke Verizon's long-distance authorization in Massachusetts until the DTE completes its cost proceeding.

I am also troubled by the cost inputs used to set the loop rates in Massachusetts. In particular, the fill factor used is exceptionally low. In addition, the designated cost of capital exceeds the figure used to set retail rates in Massachusetts and is substantially higher than the percentages used in the other Verizon states. I have every confidence that the Massachusetts DTE will address any flaws in the inputs through its pending cost proceeding.

As we have consistently noted, opening a local market to competition does not end with the grant of a 271 application. Indeed, the Commission and state commissions must be even more vigilant in ensuring that incumbents live up to their statutory obligations once long-distance authorization is granted.

This application demonstrates the importance of each state commission undertaking an evaluation of forward-looking costs as it establishes rates within its borders. It also demonstrates that, although a forward-looking methodology provides latitude in setting rates, pricing decisions in other states can serve as a benchmark by which a state commission can evaluate the appropriateness of its rates. I encourage state commissions to undertake a pro-active dialogue on pricing with each other and with this Commission so that the benefits of effective competition reach consumers throughout the entire country as quickly as possible.

After this fifth grant of an application to provide long-distance services, there should no longer be any question about *getting to yes*; rather the focus must be on *getting it right*.

**CONCURRING STATEMENT OF
COMMISSIONER HAROLD FURCHTGOTT-ROTH**

Re: Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) and Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts (CC Docket No. 01-9)

I support today's decision to grant Verizon Section 271 authority in Massachusetts. While I continue to have doubts about the Commission's overall approach to these proceedings, I believe today's approval is a first step towards a more statutorily-constrained approach to Section 271 applications.

There are a number of hopeful signs in today's Order. First, the Commission has resisted the temptation to condition its approval on some future event or approve entry based on some new information submitted after the filing date.¹ The only relevant consideration should be a carrier's section 271 performance at the time the application is filed. Section 271 is intended to be a snapshot of what actually prevailed in the market 90 days ago not a crystal-ball-gazing speculation about a parade of horrors that may – or may not – happen in the future. When speculation prevails, 11th hour “dealmaking” is not far behind.

Second, today's decision is less intrusive into the province of state commissions. I have long advocated a more deferential approach to state commission decisions, on compliance with the checklist generally and particularly on pricing issues. Today's order moves productively in that direction. Similarly the Commission has refrained from the detailed second-guessing of state commission determinations that once typified these orders.

Finally, today's order more clearly limits our consideration to those items actually in the statutory checklist. Prior decisions seemed at least implicitly to expand that checklist – by “encouraging” and “expecting” companies and commissions to take additional steps that reflected the policy priorities of the erstwhile majority. That practice has now been largely eliminated. Although these are all positive trends, I hope that future commissions will continue down this road.

Nonetheless some aspects of today's Order are not consistent with my overall view of the FCC's role. As I have stated in prior Section 271 decisions, I believe that Section 271 primarily requires the Commission to determine whether a Bell operating company has fulfilled its obligations under Sections 251 and 252, and these are specified in the interconnection agreements into which it has entered.² In this regard, an essential element in my review is whether any

¹ Unfortunately the Kansas and Oklahoma Order suffered from both of these deficiencies.

² See Concurring Statement of Commissioner Harold W. Furchtgott-Roth, *In the Matter of Application by Verizon Under Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in* (continued....)

complaints have been filed at the FCC or with the relevant state commission alleging non-compliance with section 251 generally and section 252 agreements in particular. In the absence of such complaints, I take a highly skeptical view of allegations that are aired for the first time in the Section 271 application process. Section 271 does not create an opportunity to circumvent the statutory dispute resolution process created by Sections 251 and 252. Although today's order does emphasize the utility of complaint processes and the role of the states, it nonetheless indulges new and novel concerns unreviewed elsewhere in far more detail than I would have.

I also wish to emphasize that the FCC's job does not end with approval of Verizon's application. Section 271 (d)(6) sets forth a clear role for the Commission to ensure that Bell operating companies continue to meet the statutory checklist. I share Chairman Powell's commitment to swift and sure enforcement action when licensees violate our rules. Thus we will closely monitor the situation in Massachusetts in order to be certain that Verizon remains in full compliance with Section 271.

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New York, 15 FCC Rcd 3953 (1999) Concurring Statement of Commissioner Harold W. Furchtgott-Roth, *In the Matter of Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Texas*, 15 FCC Rcd 18354 (2000); see also Concurring Statement of Commissioner Harold W. Furchtgott-Roth, *In the Matter of Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Kansas and Oklahoma*, CC Docket 00-217 (Jan. 22, 2001).

DISSENTING STATEMENT OF COMMISSIONER GLORIA TRISTANI

Re: Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) and Verizon Global Networks Inc., for Authorization to Provide In-Region, InterLATA Services in Massachusetts (CC Docket No. 01-9)

With the stakes so high, the Commission cannot afford to let Verizon into the Massachusetts long distance market before the company has fully demonstrated compliance with the market opening requirements of section 271. The availability of unbundled network elements (UNEs) at cost-based rates is an essential ingredient of a primary strategy for entering the residential market in Massachusetts. Accordingly, I must dissent, because the Commission should not permit Verizon to enter the in-state long distance market without more rigorous support for its unbundled switching rates in Massachusetts.

Based on the evidence in the record, I cannot conclude that Verizon has demonstrated that its switching rates are based on the forward-looking, total element long run incremental cost (TELRIC) of providing that network element. Prior to filing its second 271 application for Massachusetts, Verizon elected not to rely on the unbundled switching rates set by the Massachusetts Department of Telecommunications and Energy (Massachusetts Department). Instead Verizon chose to rely on voluntarily-adopted rates equivalent to those currently in effect in New York, without providing any further evidence that those rates are TELRIC compliant for Massachusetts.

By allowing Verizon simply to mirror rate levels set four years ago in another state and subject to imminent revision, the Commission has undermined the rigor of its 271 process. Indeed the majority has sent a signal that it will allow reliance on previously approved rates, irrespective of the amount of time passed or pricing information gathered since those rates were last before us. In a declining cost industry characterized by rapid technological innovation, such an approach is inconsistent with our statutory mandate. Nor can the majority's threats of future enforcement action -- particularly with regard to "section 271 checklist items where Verizon's performance was most marginal," such as the pricing of unbundled elements¹ -- substitute for a requirement that Verizon demonstrate full checklist compliance before winning long distance authority.

The record that supported Verizon's New York 271 application in 1999, based on a pricing docket completed in 1997, is not adequate to support Verizon's case in Massachusetts today. The New York Public Service Commission (NYPSC) is expected to revise the New York rates this summer, after it completes its review of additional information regarding the cost of unbundled switching. The NYPSC adopted the current rates at a time when there was comparatively little experience with TELRIC pricing. Since the New York application was adopted, however, the Commission has acquired additional information about the pricing of

¹ Order at ¶ 251.

switching in particular. The applications that the Commission has approved since that time reflected rates for the per-line, per-month cost for switching, transport, and signaling that -- based on WorldCom's usage assumptions -- are roughly half of New York's rates.² Such rate disparities suggest there is a good chance that the NYPSC may revise its rates significantly. At a minimum, such comparisons support the need for additional information to ensure that the Massachusetts switching rate is within the range that reasonable application of TELRIC principles would produce.

In any case, Verizon did not adopt the New York rates for unbundled switching in their entirety. The New York rates, unlike the fixed rates on which Verizon relies, are subject to true-up and potential refund. Moreover, although the NYPSC is expected to complete its pricing proceeding shortly, Verizon did not commit to adopt the resulting rates, which will be based on more complete and updated cost information.

Finally, when we approved Verizon's New York 271 application, we placed "great weight on the New York Commission's active review and modification of Bell Atlantic's proposed unbundled network element prices, its commitment to TELRIC-based rates, and its detailed supporting comments concerning its extensive, multi-phased network elements rate case."³ We do not have the same record in Massachusetts. As the majority describes, significant errors appear to have been made in establishing the original UNE switching rates in Massachusetts. Like the majority, I expect that the Massachusetts Department will examine these issues during the course of its on-going rate case and set rates within the range that a reasonable application of TELRIC principles would produce. But, based on the record currently before me, I cannot conclude that the unbundled switching rates on which Verizon relies are within that range and accordingly must dissent.

² *Id.* at n.798.

³ *Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act to Provide In-region, InterLATA Service in the State of New York*, Memorandum Opinion and Order, 15 FCC Rcd 3953, 4081-4082 (1999).