IN THE MATTER OF

VERIZON VIRGINIA INC. **CASE NO. PUC-2002-00046**

To verify compliance with the conditions set forth in 47 U.S.C. § 271(c)

REPORT OF ALEXANDER F. SKIRPAN, JR., HEARING EXAMINER

July 12, 2002

On March 20, 2002, the Commonwealth of Virginia State Corporation Commission ("Commission") established this proceeding to verify whether Verizon Virginia Inc. ("Verizon Virginia") meets the requirements of § 271(c) of the Telecommunications Act of 1996 ("Act"). Among other things, the Commission appointed and delegated to the Hearing Examiner "all authority vested in the Commission by the Constitution and Code of Virginia to conduct formal proceedings, including a public hearing, to consider the § 271 filing and all evidence in support and opposition thereto."[1] Further, the Commission directed the Hearing Examiner to file this report with the Commission on July 12, 2002.[2] The format of this report is similar to that of other state § 271 consultative reports to the Federal Communications Commission ("FCC").

I. TABLE OF CONTENTS

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[1] *In the Matter of Verizon Virginia Inc.'s Compliance with the conditions set forth in 47 U.S.C. § 271(c)*, Case No. PUC-2002-00046, Preliminary Order on Verizon Virginia Inc.'s Compliance With the Conditions Set Forth in 47 U.S.C. § 271(c), at 4 (March 20, 2002) ("*Preliminary Order*").

[2] *Id.* at 9.

II. EXECUTIVE SUMMARY

Based on the record and arguments described herein, I recommend that the Commission advise the FCC that this Commission supports granting Verizon Virginia authority to provide in-region interLATA services in Virginia. Verizon Virginia currently complies with each of the fourteen Checklist Items listed in § 271(c)(2)(B) and has met its § 271(c)(1)(A) obligation to enter into interconnection agreements with competitive local exchange carriers ("CLECs"). As of March 2002, CLECs controlled approximately 17.4% of the access lines within the Commonwealth, including 26.8% of all business lines and almost 10% of all residential lines.[3] Indeed, during 2001, the number of CLEC access lines in Virginia grew by 227,500, while the number of Verizon Virginia access lines declined by over 188,100.[4]

As described below, CLECs challenged Verizon Virginia's compliance with nearly every one of the fourteen Checklist Items. However, many of the issues raised concerned matters pending in other proceedings before the FCC. Based on the multitude of issues pending before the FCC, some parties questioned this Commission's standing to offer a recommendation on checklist compliance to the FCC. Rather than focusing on matters pending before the FCC, this report and analysis focus on currently effective interconnection agreements and prices approved by this Commission. In addition, determinations of checklist compliance in this proceeding are based on actual commercial performance by Verizon Virginia, third-party testing, and FCC decisions in other Verizon § 271 proceedings. For example, significant weight is given to prior FCC findings where the Verizon Virginia systems under review here are the same systems the FCC found to be checklist compliant in prior proceedings.

CLECs also raised a number of issues related to specific problems encountered in transacting business with Verizon Virginia that affect the quality of service the CLEC is able to provide to its own customers. In recent cases, the FCC has set a high threshold for dealing with specific CLEC complaints in § 271 proceedings, and has directed such issues to separate complaint or arbitration proceedings. The general standard used for checklist compliance is whether an efficient CLEC has a reasonable opportunity to compete. Nonetheless, during the course of this proceeding, Verizon Virginia either instituted or agreed to implement system fixes designed to address some of the issues raised by CLECs. In several instances, Verizon Virginia's commitments are noted as a basis for the determination of checklist compliance.

The Commission has established a detailed set of performance guidelines or metrics, an ongoing industry collaborative to update and change metrics, and is in the final stages of adopting a performance assurance plan to provide remedies to CLECs when Verizon Virginia fails to meet certain defined performance standards. This process is the primary means for the Commission to regulate continued checklist compliance by Verizon Virginia and for CLECs to address specific operational problems that may arise in their relationship with Verizon Virginia.

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[3] Exhibit No. 54.
[4] Exhibit No. 56.

Two of the more controversial Checklist Items were Checklist Item 4, unbundled local loops, and Checklist Item 8, white page directory listings. In regards to unbundled local loops, especially concerning unbundled DS-1 Loops, CLECs complained that Verizon Virginia's policy by which it determines the availability of facilities to meet CLEC requests was too restrictive. Verizon Virginia is not required by the Act or the FCC to construct facilities to meet CLEC demands for unbundling. However, CLECs maintained that some activities, which Verizon Virginia classifies as additional construction, are only maintenance. CLECs are thus forced to purchase the same facilities as special access at much higher prices. Because the FCC has approved the same Verizon policy in other recent § 271 applications, Verizon Virginia's policy was found to be checklist compliant in Virginia. Nonetheless, I find Verizon Virginia's policy has a significant and adverse effect on competition in Virginia, is inconsistently applied across UNEs, is at odds with industry accounting rules, and is inconsistent with the pricing of unbundled elements. I recommend that the Commission in its consulting role so advise the FCC.

As to white page directory listings, Verizon Virginia meets this Checklist Item based on recent improvements to its directory listings process and on its commitment to work with CLECs within the Change Management process on certain other requested system enhancements. Specifically, I recommend adding Commission support to Cox's requested improvements to the Line Verification Report. Further, checklist approval should not end other Commission initiatives underway to monitor and improve the directory listings process.

III. BACKGROUND

Verizon Virginia's § 271 application follows on the heels of several recently successful § 271 applications. Thus, in preparing this report, particular attention was given to the FCC's § 271 decisions related to Verizon in New York,[5] Massachusetts,[6] Pennsylvania,[7] Maine,[8] and New Jersey,[9] and the FCC's recent § 271 decision related to BellSouth for Georgia and Louisiana.[10] In addition, this report benefits from the review of the consultative reports prepared by the Massachusetts, Pennsylvania, Maine, and New Jersey commissions.

In 1995, the Virginia General Assembly set the Commonwealth on the path towards local exchange competition with the enactment of Virginia Code § 56-265.4:4 C 1-3,[11] authorizing the Commission to certificate competitive providers and promulgate rules that "promote and seek to assure the provision of competitive services to all classes of customers throughout all geographic areas of the Commonwealth by a variety of service providers."[12] Upon passage of the federal

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[5] *Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Services in the State of New York*, CC Docket No. 99-295, FCC 99-404, Memorandum Opinion and Order, 15 FCC Rcd 3953 (1999) ("*Bell Atlantic New York Order*").

[6] *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, FCC 01-130, Memorandum Opinion and Order, 16 FCC Rcd 8988 (2001) ("*Verizon Massachusetts Order*").

[7] *Application of Verizon Pennsylvania Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc. for Authorization To Provide In-Region, InterLATA Services in Pennsylvania*, CC Docket No. 01-138, FCC O1-269, Memorandum Opinion and Order, 16 FCC Rcd 17419 (2001) ("*Verizon Pennsylvania Order*").

[8] *Application by Verizon New England, Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization to Provide In-Region, InterLATA Services In Maine*, CC Docket No. 02-61, FCC 02-187, Memorandum Opinion and Order (rel. June 19, 2002) ("*Verizon Maine Order*").

[9] *Application by Verizon New Jersey Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization To Provide In-Region InterLATA Services in New Jersey*, WC Docket No. 02-67, FCC 02-189, Memorandum Opinion and Order (rel. June 24, 2002) ("*Verizon New Jersey Order*").

[10] *Joint Application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc. for Provision of In-Region, InterLATA Services in Georgia and Louisiana*, CC Docket No. 02-35, FCC 02-147, Memorandum Opinion and Order (rel. May 15, 2002) ("*BellSouth GALA Order*").

[11] 1995 Va. Acts 187.

[12] Va. Code § 56-265.4:4 C 3.

Act in 1996, the Commission complied with its terms, conducted arbitrations, set rates, and approved interconnection agreements.

However, in reviewing the Commission's actions to implement the Act, the United States District Court for the Eastern District of Virginia, held that as a result of carrying out its duties to implement the Act, the Commission waived the sovereign immunity of the Commonwealth.[13] As a consequence, the Commission determined:

> The Virginia Constitution provides that this Commission "shall have the power and be charged with the duty of regulating the rates, charges, and services . . . of . . . telephone . . . companies." Enactments of the General Assembly also impose obligations on the Commission. . . . Nothing in the Virginia Constitution, nor in Virginia statutory law, allows us to ignore our duties. Similarly, nothing in the Virginia Constitution, nor in Virginia statutory law, either directly or indirectly, allows us to waive the sovereign immunity of Virginia and to subject the Commonwealth to suit in federal court. . . . We can neither voluntarily waive our Constitutional and statutory regulatory duty, nor voluntarily waive Virginia's sovereign immunity.[14]

Since then, the Commission has attempted to promote and protect the interests of the Commonwealth without waiving the Commonwealth's Eleventh Amendment right to sovereign immunity. As a result local exchange companies operating in Virginia have taken many interconnection and pricing disputes directly to the FCC. Nonetheless, the Commission has continued to promote local competition as demonstrated by its work to establish a Virginia performance assurance plan ("PAP"),[15] revise Verizon Virginia's collocation tariff,[16] and conduct other proceedings and collaboratives.[17]

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[13] *MCI Telecommunications of Virginia, Inc. v. Bell Atlantic-Virginia, Inc.*, 1997 WL 1133714 (E.D. Va.).

[14] *Commonwealth of Virginia*, *ex rel. State Corporation Commission Ex Parte: To determine prices Bell Atlantic-Virginia, Inc. is authorized to charge Competitive Local Exchange Carriers in accordance with the Telecommunications Act of 1996 and applicable State law*, Case No. PUC970005, 1999 S.C.C. Ann. Rep. 225 ("*Virginia Pricing Case*").

[15] *Commonwealth of Virginia, ex rel. State Corporation Comm'n, Ex Parte: Establishment of a Performance Assurance Plan for Verizon Virginia Inc.*, PUC-2001-00226, Fifth Preliminary Order (June 28, 2002).

[16] *Application of Verizon Virginia Inc. for approval of its Network Services Interconnection Tariff, S.C.C.-Va.-No.218*, PUC-1999-00101, Order Approving Settlement Agreement Filed February 1, 2002 (June 24, 2002) ("*Virginia Collocation Order*").

[17] *See, e.g., Commonwealth of Virginia, ex rel. State Corporation Comm'n, Ex Parte: Establishment of Carrier Performance Standards for Verizon Virginia Inc.*, PUC-2001-00206, Procedural Order on Proposed Revisions to VA Guidelines Filed June 13, 2002, (June 19, 2002); *Commonwealth of Virginia, ex rel. State Corporation Comm'n, Ex Parte: In the matter of*

(continued . . . .)

Moreover, the Commission actively participated in the third-party testing of Verizon Virginia's Operation Support Systems ("OSS") conducted by KPMG Consulting, Inc. ("KPMG"). As will be explained in more detail below, during KPMG's test, the Commission Staff developed computer tools for analyzing monthly Verizon Virginia performance or metrics reports. These tools also permit Staff to receive and analyze the detail data underlying Verizon Virginia's metrics reports. This will enable Staff to perform monthly checks or "replications" of Verizon Virginia's metrics reports, as well as perform *ad hoc* queries and produce its own specialized reports. Furthermore, this examiner was the Commission's project leader for the KPMG test. This offered an opportunity to follow the test from its inception to its completion. As will be discussed below in the OSS section of the report, by participating on almost a daily basis, insight was gained as to the strengths and limitations of the KPMG test.

Participation in KPMG's test also provided some understanding of the complexity of Verizon Virginia's OSS, the efforts made by Verizon Virginia to serve CLECs, and the importance of these processes to the CLECs and their customers. Performance that Verizon Virginia may describe as "wowee-zowee good"[18] may, nevertheless, cause a CLEC to lose a customer.[19]

(Continued from previous page)
establishing rules governing the discontinuance of local exchange telecommunications services provided by competitive local exchange carriers, PUC-2001-00128, Order for Notice and Comment or Requests for Hearing (June 20, 2001); *Commonwealth of Virginia, ex rel. State Corporation Comm'n, Ex Parte: In the matter of establishing rules governing an Alternative Dispute Resolution Process for telecommunications carriers*, PUC-2001-00101, Order Adopting Rules (October 22, 2001).

[18] Albert, Tr. at 300.

[19] Exhibit No. 91, at 3.

IV. PROCEDURAL HISTORY

In its Order Closing Investigation in Case No. PUC-1996-00111, the Commission directed Verizon Virginia to file its § 271 report, including all supporting evidence and documentation detailing its compliance with § 271 of the Act, with the Commission at least sixty days prior to filing its § 271 application with the FCC.[20] On March 15, 2002, Verizon Virginia made its § 271 filing with the Commission.

On March 20, 2002, the Commission issued its *Preliminary Order*, establishing this matter. Among other things, in the *Preliminary Order* the Commission scheduled the public evidentiary hearing to convene on June 17, 2002, established a procedural schedule, directed Verizon Virginia to publish notice, scheduled a procedural conference for March 27, 2002, and assigned the matter to a Hearing Examiner.

On March 27, 2002, the Hearing Examiner convened a procedural conference as directed. Representatives from the Commission; Verizon; the Consumer Advocate Division of the Office of Attorney General ("Attorney General"); WorldCom Inc. ("WorldCom"); Virginia Cable Telecommunications Association ("VCTA"); AT&T Communications of Virginia, LLC, ("AT&T"); Cox Virginia Telcom, Inc. ("Cox"); Cavalier Telephone, LLC, ("Cavalier"); Covad Communications Company ("Covad"); and the Public Service Commission of Maryland ("MDPSC") were present. Based on the procedural conference, on March 29, 2002, the Hearing Examiner issued a ruling providing for a protective agreement and other procedures to facilitate the discovery process.

The *Preliminary Order* established April 12, 2002, as the date for parties to file a Notice of Intent to Participate. Parties that filed a Notice of Intent to Participate as of that date, or with leave to file late were as follows: Association of Communications Enterprises ("ASCENT"); OpenBand of Virginia, LLC, ("OpenBand"); WorldCom; Allegiance TelCom of Virginia, Inc. ("Allegiance"); NTELOS Network Inc. and R&B Network Inc. ("NTELOS"); Cox; Cavalier; AT&T; Attorney General; VCTA; Covad; MDPSC; and Starpower Communications, LLC ("Starpower").

During the course of discovery, several motions to compel were filed and ruled upon. The chart below summarizes these motions.

Date Filed	Motion	Date Resolved
April 24, 2002	AT&T's Motion to Compel	April 25, 2002
April 26, 2002	Verizon Virginia's Motion for Reconsideration	May 1, 2002
April 29, 2002	WorldCom's Motion to Compel	April 30, 2002
April 29, 2002	VCTA's Motion to Compel	April 30, 2002

[20] *Commonwealth of Virginia, ex rel. State Corporation Comm'n, Ex Parte: In the matter of investigating whether Bell Atlantic-Virginia, Inc. meets the requirements of § 271 of the Telecommunications Act of 1996*, Case No. PUC-1996-00111, Order Closing Investigation (March 20, 2001).

May 1, 2002	Cox's Motion to Compel	May 2, 2002
May 21, 2002	Verizon Virginia's Motion to Compel Cox	May 22, 2002
May 21, 2002	Verizon Virginia's Motion to Compel Cavalier	May 22, 2002
May 22, 2002	Verizon Virginia's Motion to Compel Covad	May 23, 2002
May 24, 2002	Verizon Virginia's Motion to Compel Cavalier	May 28, 2002
June 5, 2002	VCTA's Motion to Compel	June 7, 2002
June 6, 2002	Cavalier's Motion to Compel	June 10, 2002
June 11, 2002	Cavalier's Motion to Compel	June 12, 2002

On May 6, 2002, Cavalier filed a Motion to Dismiss Proceeding Initiated Pursuant to 47 U.S.C. § 271. Cavalier argued that if the Commission refuses to hear interconnection disputes against Verizon Virginia brought under § 252, then it should not entertain a matter brought under another section of the same Act. Cavalier maintained that such unequal application of the Act violates the equal protection clause of the Fourteenth Amendment. In its response Verizon Virginia argued that the Commission's refusal to arbitrate under § 252 affects both CLECs and incumbent local exchange carriers ("ILECs") equally. Cavalier's motion was denied by a Hearing Examiner's Ruling dated June 5, 2002, based in part upon a finding that because the Commission applies the same standard to cases brought under §§ 252 and 271 of the Act, (*i.e.*, whether participation implicates a waiver of the Commonwealth's Eleventh Amendment immunity) the Commission has not violated the Fourteenth Amendment's equal protection clause.

On June 7, 2002, Verizon Virginia filed a Motion in Limine, in which it sought to exclude from consideration several issues raised in CLEC testimony that it contended were irrelevant to whether Verizon Virginia meets the requirements of the competitive checklist. Verizon Virginia's Motion in Limine was denied by a Hearing Examiner's Ruling dated June 10, 2002.

On June 17, 2002, through June 21, 2002, hearings were convened in Richmond for receiving evidence. Representing Verizon Virginia at the hearings were Lydia R. Pulley, Esquire, David W. Ogburn, Jr., Esquire, William B. Petersen, Esquire, Deborah Haraldson, Esquire, and William D. Smith, Esquire. Alan M. Shoer, Esquire, Donald F. Lynch, III, Esquire, and Stephen T. Perkins, Esquire, appeared on behalf of Cavalier. Cliona M. Robb, Esquire, and E. Ford Stephens, Esquire, appeared on behalf of Cox. Mark A. Keffer, Esquire, Ivars V. Mellups, Esquire, and Fredrick C. Pappalardo, Esquire, appeared on behalf of AT&T. Kimberly A. Wild, Esquire, appeared on behalf of WorldCom. Anthony Hansel, Esquire, appeared on behalf of Covad. Mary McDermott, Esquire, appeared on behalf of NTELOS. Lawrence Freedman, Esquire, appeared on behalf of OpenBand. Robert M. Gillespie, Esquire, appeared on behalf of the VCTA. Robert E. Kelly, Esquire, appeared on behalf of Allegiance. Raymond L. Doggett, Jr., Esquire, appeared on behalf of the Attorney General. Don R. Mueller, Esquire, represented the Staff. Two public witnesses appeared on June 17, 2002. Filed with this Report are transcripts of the hearings.

On July 1, 2002, briefs were filed by Verizon Virginia, Cavalier, Cox, AT&T, WorldCom, Covad, NTELOS, OpenBand, VCTA, Allegiance, and the Attorney General.

V. VERIZON VIRGINIA COMPLIANCE WITH § 271(c)(1)(A)

In order for the FCC to approve a Bell Operating Company's ("BOC") application to provide in-region, interLATA services, a BOC must first demonstrate that it satisfies the requirements of either § 271(c)(1)(A) ("Track A") or § 271(c)(1)(B) ("Track B").[21]

A. Description of Issue

To qualify for Track A, a BOC must have interconnection agreements, which have been approved under § 252, with "one or more unaffiliated competing providers of telephone exchange service . . . to residential and business subscribers."[22] The Act states that such telephone service may be offered by competing providers "either exclusively over their own telephone . . . facilities or predominantly over their own telephone . . . facilities in combination with the resale of the telecommunications services of another carrier."[23]

Track B, § 271(c)(1)(B) permits BOCs to obtain authority to provide in-region, interLATA services if, after ten months from the date of enactment, no facilities-based provider has requested access and interconnection, but the state has approved a Statement of Generally Available Terms and Conditions that satisfies the competitive checklist in § 271(c)(2)(B). However, the FCC has held that Track B "is not available to a BOC if it has already received a request for access and interconnection from a CLEC."[24]

B. Standard of Review

In its *Ameritech Michigan Order* the FCC concluded that when a BOC relies upon more than one competing provider, § 271(c)(1)(A) does not require each carrier to provide service to both residential and business subscribers.[25] Further, in its *Verizon Pennsylvania Order* the FCC indicated that the BOC should serve more than a *de minimis* number of residential customers.[26]

C. Summary of the Evidence Before the Commission

Verizon Virginia offered the Declaration of Robert W. Woltz, Jr., president of Verizon Virginia, who maintained that the local market within its service territory, formerly served by Bell Atlantic, "is irreversibly open."[27] As of December 31, 2001, Mr. Woltz counted sixty-six

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[21] 47 U.S.C. § 271(d)(3)(A).
[22] 47 U.S.C. § 271(c)(1)(A).
[23] *Id.*
[24] *Verizon New Jersey Order* at Appendix C ¶ 16.
[25] *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, Inter-LATA Services in Michigan*, CC Docket 97-137, FCC 97-298, at ¶ 85 (rel. August 19, 1997) ("*Ameritech Michigan Order*").
[26] *Verizon Pennsylvania Order* at ¶ 123.
[27] Exhibit No. 4, at ¶ 3.

active CLECs within the Commonwealth.[28] As of that date, Mr. Woltz asserted that CLECs served approximately 673,000, or more than 16%, of the total local exchange access line market within Verizon Virginia's service territory.[29] The table below provides a line-type breakdown of Mr. Woltz's estimates for the number of CLEC local exchange access lines, serving business and residential customers as of December 31, 2001.[30]

Type of Line	Business Lines	Residential Lines	Total
CLEC Facilities-Based	395,000	176,000	571,000
UNE Platform	2,400	5,800	8,200
Resale	64,500	29,600	94,100
Total	461,900	211,400	673,300

In addition, Mr. Woltz contended that local competition is both geographically dispersed and growing. In support that local competition is geographically dispersed, Mr. Woltz stated that as of December 2001, CLECs had approximately 640 existing collocation agreements that gave CLECs access to approximately 87% of the access lines served by Verizon Virginia.[31] In regards to growth, Mr. Woltz offered that between December 1999 and December 2001, the average number of minutes of traffic exchanged with CLECs on a monthly basis increased by more than 275%; the number of interconnection trunks provided to CLECs increased by more than 235%; the number of loops increased by more than 1,655%; and the quantity of telephone numbers ported has increased by more than 520%.[32] During the hearing, Mr. Woltz asserted that CLECs controlled over 17% of the Virginia's access lines, which "is the highest market share at the time that any Verizon state has been approved for [long distance] entry by the FCC."[33]

D. Discussion

No party to this proceeding has challenged Verizon Virginia's assertion that it satisfies the requirements of § 271(c)(1)(A). There is no dispute that multiple competitors are providing telephone exchange service to residential and business customers either exclusively or predominantly over their own telephone facilities. AT&T raised several issues regarding the geographic dispersion of competition throughout Virginia, but these issues pertained more to AT&T's public interest arguments than the specific requirements of § 271(c)(1)(A). AT&T's issues, and Verizon Virginia's responses are addressed in the Public Interest Analysis section of this report.

[28] Exhibit No. 1, at Attachment 201.
[29] Exhibit No. 4, at ¶ 5.
[30] *Id.* at ¶¶ 5-6.
[31] *Id.* at ¶ 7.
[32] *Id.* at ¶ 8.
[33] Woltz, Tr. at 1001; Exhibit No. 54; Exhibit No. 55.

E. Conclusion

Based on the record, I find that Verizon Virginia meets the Track A requirements of § 271(c)(1)(A).

VI. VERIZON VIRGINIA COMPLIANCE WITH § 271(c)(2)(B)

Section 271(c)(2)(B) contains the "competitive checklist." To meet the requirements of this subsection, Verizon Virginia must provide access or interconnection to other telecommunications carriers that meets each of the fourteen Checklist Items.[34]

A. Checklist Item 1 – Interconnection

Section 271(c)(2)(B)(i) requires Verizon Virginia to provide interconnection in accordance with the requirements of §§ 251(c)(2) and 252(d)(1).

1. Description

Section 251(c)(2) imposes a duty on incumbent LECs "to provide, for the facilities and equipment of any requesting telecommunications carrier, interconnection with the local exchange carrier's network . . . for the transmission and routing of telephone exchange service and exchange access."[35] In the *Local Competition First Report and Order*, the FCC concluded that interconnection referred "only to the physical linking of two networks for the mutual exchange of traffic."[36] Thus, the FCC excludes transport and termination of traffic from its definition of interconnection.[37]

2. Standard of Review

Section 251 contains three requirements for the provision of interconnection. First, an incumbent LEC must provide interconnection "at any technically feasible point within the carrier's network."[38] Second, an incumbent LEC must provide interconnection that is "at least equal in quality to that provided by the local exchange carrier to itself."[39] Finally, the incumbent LEC must provide interconnection "on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, in accordance with the terms of the agreement and the requirements of [section 251] and section 252."[40]

To implement the equal-in-quality requirement in section 251, the FCC's rules require an incumbent LEC to design and operate its interconnection facilities to meet "the same technical criteria and service standards" that are used for the interoffice trunks within the incumbent

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[34] 47 U.S.C.S. § 271(c)(2)(B).
[35] 47 U.S.C. § 251(c)(2)(A); *Verizon New Jersey Order* at Appendix C ¶ 17.
[36] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, First Report and Order, 11 FCC Rcd 15499, 15590, ¶ 176 (1996) (*Local Competition First Report and Order*); *Verizon New Jersey Order* at Appendix C ¶ 17.
[37] *Local Competition First Report and Order* at ¶ 176; *Verizon New Jersey Order* at n.629.
[38] 47 U.S.C. § 251(c)(2)(B); *Verizon New Jersey Order* at Appendix C ¶ 17.
[39] 47 U.S.C. § 251(c)(2)(C); *Verizon New Jersey Order* at Appendix C ¶ 17.
[40] 47 U.S.C. § 251(c)(2)(D); *Verizon New Jersey Order* at Appendix C ¶ 17.

LEC's network.[41] In the *Local Competition First Report and Order*, the FCC identified trunk group blockage and transmission standards as indicators of an incumbent LEC's technical criteria and service standards.[42] In prior section 271 applications, the FCC concluded that disparities in trunk group blockage indicated a failure to provide interconnection to competing carriers equal-in-quality to the interconnection the BOC provided to its own retail operations.[43] As the FCC has explained, "[t]runk group blockage indicates that end users are experiencing difficulty completing or receiving calls, which may have a direct impact on the customer's perception of a competitive LEC's service quality."[44]

In the *Local Competition First Report and Order*, the FCC concluded that the requirement to provide interconnection on terms and conditions that are "just, reasonable, and nondiscriminatory" means that an incumbent LEC must provide interconnection to a competitor in a manner no less efficient than the way in which the incumbent LEC provides the comparable function to its own retail operations.[45] The FCC's rules interpret this obligation to include, among other things, the incumbent LEC's installation time for interconnection service[46] and its provisioning of two-way trunking arrangements, which shall be provided wherever such arrangements are technically feasible.[47] Similarly, repair time for troubles affecting interconnection trunks is useful for determining whether a BOC provides interconnection service under "terms and conditions that are no less favorable than the terms and conditions" the BOC provides to its own retail operations.[48]

Competing carriers may choose any method of technically feasible interconnection at a particular point on the incumbent LEC's network.[49] Incumbent LEC provision of interconnection trunking is one common means of interconnection. Technically feasible methods also include, but are not limited to, physical and virtual collocation and meet point arrangements.[50] Pursuant to § 251(c)(6), which requires incumbent LECs to provide physical collocation, the FCC has held that the provision of collocation is an essential prerequisite to

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[41] *Local Competition First Report and Order* at ¶¶ 221-225; *See Bell Atlantic New York Order* at ¶ 64; *Verizon New Jersey Order* at Appendix C ¶ 18.
[42] *Local Competition First Report and Order* at ¶¶ 224-25; *Verizon New Jersey Order* at Appendix C ¶ 18.
[43] *See Bell Atlantic New York Order* at ¶ 64; *Ameritech Michigan Order* at ¶¶ 240-45; *Verizon New Jersey Order* at Appendix C ¶ 18.
[44] *Verizon New Jersey Order* at n.635.
[45] *Local Competition First Report and Order* at ¶ 218; *Verizon New Jersey Order* at Appendix C ¶ 19.
[46] 47 C.F.R. § 51.305(a)(5); *Verizon New Jersey Order* at Appendix C ¶ 19.
[47] 47 C.F.R. § 51.305(f); *Verizon New Jersey Order* at Appendix C ¶ 19; *See also Bell Atlantic New York Order* at ¶ 65; *Local Competition First Report and Order* at ¶ 219-20.
[48] 47 C.F.R. § 51.305(a)(5); *Verizon New Jersey Order* at Appendix C ¶ 19.
[49] *Local Competition First Report and Order* at ¶¶ 549-50; *Verizon New Jersey Order* at Appendix C ¶ 20.
[50] 47 C.F.R. § 51.321(b); *Local Competition First Report and Order* at ¶¶ 549-50; *Verizon New Jersey Order* at Appendix C ¶ 20.

demonstrating compliance with item 1 of the competitive checklist.[51] In the *Advanced Services First Report and Order*, the FCC revised its collocation rules to require incumbent LECs to include shared cage and cageless collocation arrangements as part of their physical collocation offerings.[52] In response to a remand from the D.C. Circuit, the FCC adopted the *Collocation Remand Order*, establishing revised criteria for equipment for which incumbent LECs must permit collocation, requiring incumbent LECs to provide cross-connects between collocated carriers, and establishing principles for physical collocation space and configuration.[53] To show compliance with its collocation obligations, a BOC must have processes and procedures in place to ensure that all applicable collocation arrangements are available on terms and conditions that are "just, reasonable, and nondiscriminatory" in accordance with section 251(c)(6) and the FCC's implementing rules.[54] Data showing the quality of procedures for processing applications for collocation space, as well as the timeliness and efficiency of provisioning collocation space, help the FCC evaluate a BOC's compliance with its collocation obligations.[55]

As stated above, Checklist Item 1 requires a BOC to provide "interconnection in accordance with the requirements of sections 251(c)(2) *and* 252(d)(1)."[56] 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.[57] The FCC's pricing rules require, among other things, that in order to comply with its collocation obligations, an incumbent LEC provide collocation based on TELRIC.[58]

To the extent pricing disputes arise, the FCC has stated that it will not duplicate the work of the state commissions.[59] As 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

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[51] *Bell Atlantic New York Order* at ¶ 66; *Verizon New Jersey Order* at Appendix C ¶ 20.
[52] *Deployment of Wireline Services offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761, 4784-86, ¶¶ 41-43 (1999), *aff'd in part and vacated 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 17806 (2000); *on remand*, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Fourth Report and Order, 16 FCC Rcd 15435 (2001) ("*Collocation Remand Order*"), *petition for recon. pending*; *Verizon New Jersey Order* at Appendix C ¶ 20.
[53] *Collocation Remand Order* at ¶ 12; *Verizon New Jersey Order* at Appendix C ¶ 20.
[54] *Bell Atlantic New York Order* at ¶ 66; *Verizon New Jersey Order* at Appendix C ¶ 20.
[55] *Id.*
[56] 47 U.S.C. § 271(c)(2)(B)(i) (emphasis added); *Verizon New Jersey Order* at Appendix C ¶ 21.
[57] *Id*. § 252(d)(1).
[58] *Verizon New Jersey Order* at Appendix C ¶ 20; *See* 47 C.F.R. §§ 51.501-07, 51.509(g); *Local Competition First Report and Order* at ¶¶ 618-29, 674-712, 743-51, 826.
[59] *Verizon New Jersey Order* at Appendix C ¶ 22.

arbitration process are consistent with federal law.[60] Although the FCC has an independent statutory obligation to ensure compliance with the checklist, § 271 does not compel the FCC to preempt the orderly disposition of intercarrier disputes by the state commissions, particularly now that the Supreme Court has restored the Commission's pricing jurisdiction and has thereby directed the state commissions to follow FCC pricing rules in their disposition of those disputes.[61]

Consistent with the FCC's precedent, the mere presence of interim rates will not generally threaten a § 271 application so long as: (i) an interim solution to a particular rate dispute is reasonable under the circumstances; (ii) the state commission has demonstrated its commitment to the FCC's pricing rules; and (iii) provision is made for refunds or true-ups once permanent rates are set.[62] In addition, the FCC has determined that rates contained within an approved § 271 application, including those that are interim, are reasonable starting points for interim rates for the same carrier in an adjoining state.[63]

Although the FCC has been willing to grant a § 271 application with a limited number of interim rates where the above-mentioned three-part test is met, it has stated its preference to analyze a § 271 application on the basis of rates derived from a permanent rate proceeding.[64] The FCC has warned that at some point it will become more reluctant to continue approving § 271 applications containing interim rates.[65] Thus, the FCC has counseled against interim rates becoming a substitute for completing these significant proceedings.[66]

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[60] *Id.*; *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*, CC Docket No. 00-65, Memorandum Opinion and Order, 15 FCC Rcd 18354, 18394, ¶ 88 (2000) ("*SWBT Texas Order*"); *See also* 47 U.S.C. §§ 252(c), (e)(6); *American Tel. & Tel Co. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999) ("*AT&T v. Iowa Utils. Bd*."); *Verizon New Jersey Order* at Appendix C ¶ 22.

[61] *Verizon New Jersey Order* at Appendix C ¶ 22; *Verizon v. FCC,* Nos. 00-511, 00-555, 00-587, 00-590, and 00-602, 2002 WL 970643 (Sup. Ct. May 13, 2002) ("*Verizon v. FCC*").

[62] *SWBT Texas Order* at 88; *Verizon New Jersey Order* at Appendix C ¶ 23; *See also Bell Atlantic New York Order* at ¶ 258 (explaining the Commission's case-by-case review of interim prices).

[63] *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*, CC Docket No. 00-217, Memorandum Opinion and Order, 16 FCC Rcd 6237, 6359-60, ¶ 239 (2001) ("*SWBT Kansas/Oklahoma Order*"), *aff'd in part, remanded in part sub nom. Sprint Communications Co. v. FCC*, No. 01-1076 (D.C. Cir. Dec. 28, 2001); *Verizon New Jersey Order* at Appendix C ¶ 23.

[64] *Verizon New Jersey Order* at Appendix C ¶ 24; *See Bell Atlantic New York Order* at ¶ 260.

[65] *Verizon New Jersey Order* at Appendix C ¶ 24.

[66] *Id.*

3. Summary of the Evidence Before the Commission

Verizon Virginia, Cavalier, Cox, WorldCom, Covad, and NTELOS presented evidence concerning interconnection.

Verizon Virginia – Direct Case

In its Checklist Declaration, Verizon Virginia maintained that it "meets each of the requirements in the Act and the *Local Competition* [*First Report and*] *Order*."[67] Specifically, Verizon Virginia claimed to make interconnection available at: (i) the line-side of the local switch, (ii) the trunk-side of a local switch, (iii) the trunk interconnection points for a tandem switch, (iv) central office cross-connection points, (v) out-of-band signaling transfer points necessary to exchange traffic at these points to access call-related databases, and (vi) the points of access to unbundled network elements.[68] In addition, CLECs may request interconnection at any other technically feasible point through a Bona Fide Request ("BFR") process.[69] Other interconnections provided by Verizon Virginia include access to 800 Database, Line Information Database ("LIDB"), the Local Number Portability ("LNP") database, the Advanced Intelligent Network ("AIN"), E-911, Directory Assistance, Operator Services, two-way measured-use trunking, and 64 Kbps Clear Channel interconnection trunks in addition to the traditional 56 Kbps interconnection trunks.[70]

As to interconnection trunking, as of December 2001, Verizon Virginia had more than 210,000 local interconnection trunks in service with more than thirty CLECs.[71] Verizon Virginia's own interoffice trunks number about 360,000.[72] During 2001, Verizon Virginia added approximately 78,000 interconnection trunks, and expanded the trunk capacity of its switches by approximately 179,000 tandem trunk terminations and about 116,000 end office trunk terminations.[73] The standard intervals for provisioning interconnection trunks fall into one of six categories depending upon whether the CLEC provided Verizon Virginia with forecasted demand, as well as the size and complexity of the trunk request.[74] CLECs may submit orders for interconnection trunks electronically or by fax, with Verizon Virginia responding with a Firm Order Confirmation ("FOC") within ten days for Category 1 orders and "sufficiently in advance of the date due to enable the CLEC to complete its trunk provisioning activities" for all other trunk orders.[75]

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[67] Exhibit No. 1, at ¶ 29.
[68] *Id.*; Exhibit No. 1, at Attachment 202.
[69] Exhibit No. 1, at ¶ 30.
[70] *Id.* at ¶¶ 32-35.
[71] *Id.* at ¶ 38.
[72] *Id.*
[73] *Id.* at ¶ 39.
[74] *Id.* at ¶¶ 41-44.
[75] *Id.* at ¶ 45.

Verizon Virginia reported that it consistently meets or exceeds provisioning interval targets and due dates for interconnection trunks.[76] Verizon Virginia pointed out that some provisioning delays are caused when CLECs are not ready to accept the ordered trunks or make significant changes to their trunk orders.[77] Verizon Virginia claimed that the quality of the interconnection made for CLECs is the same as the interconnection Verizon Virginia provides between its own switches.[78] Verizon Virginia stated that the quality and its nondiscriminatory maintenance and repair practices are confirmed by its metrics reports.[79]

Verizon Virginia explained that it designs interconnection trunks to CLECs with the same technical criteria it uses for its own facilities.[80] For example, dedicated final trunk groups from Verizon Virginia to CLECs, like Verizon Virginia's own final tandem trunks, are generally designed to have one call out of every 200 blocked during the busiest hour of the day.[81] For the three months ended January 2002, the final trunk blocking exceeding their engineering design for CLECs was 1.36%.[82] In addition, Verizon Virginia conducts trunk utilization traffic studies to develop utilization ratios of "trunks required" to "trunks in service."[83] For the three months ending January 2002, the average utilization ratio was 36.8% for CLEC-dedicated final trunk groups and 61.9% for Verizon Virginia's own common final trunk groups.[84] This indicates Verizon Virginia is providing a better grade of service to CLECs than to itself.[85] In summary, Verizon Virginia maintained that it provides a substantial number of high quality interconnection trunks to CLECs at reasonable and nondiscriminatory intervals with satisfactory maintenance and repair service.[86] These interconnection trunks support an average of 1.2 billion minutes of traffic per month.[87]

Regarding collocation, Verizon Virginia claimed that it offers the same collocation offering as Verizon Pennsylvania, Verizon Massachusetts, and Verizon New York, including multiple collocation options and alternatives.[88] Collocation is available to CLECs under interconnection agreements and the Verizon-VA Network Interconnection services Tariff S.C.C.-Va.-No. 218 ("Virginia Collocation Tariff"), which is filed with and approved on an interim basis, subject to refund and/or modification by the Commission.[89] The types of

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[76] *Id.* at ¶ 46, Attachment 204; Exhibit No. 2, at Attachment 401.
[77] Exhibit No. 1, at ¶¶ 46-47, Attachment 204.
[78] Exhibit No. 1, at ¶ 48.
[79] *Id.*
[80] *Id.* at ¶ 49.
[81] *Id.* at ¶ 50.
[82] *Id.* at ¶ 51.
[83] *Id.* at ¶ 54.
[84] *Id.* at ¶ 55.
[85] *Id.*
[86] *Id.* at ¶ 56.
[87] *Id.*
[88] *Id.* at ¶¶ 59-60.
[89] *Id.* at ¶ 62.

collocation offered by Verizon Virginia, the number provisioned and the number in the process of being provisioned are summarized in the following table:

Type	Number Provisioned As of January 2002	Provisioning in Progress
Traditional Physical Collocation[90]	255	7
Secured Collocation Open Physical Environment ("SCOPE")[91]	447	26
Cageless Collocation Open Environment ("CCOE")[92]	200	10
Virtual Collocation[93]	112	12
Shared Collocation[94]	0	0
Adjacent Structure Collocation[95]	0	0
Competitive Alternate Transport Terminal ("CATT")[96]	20	0
Collocation at Remote Terminal Equipment Enclosures ("CRTEE")[97]	0	0

Through December 2001, CLECs had access to 83.1% of Verizon Virginia's residential access lines and 92.2% of Verizon Virginia's business access lines through collocation arrangements in 98 central offices.[98]

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[90] Traditional Physical Collocation is defined as collocation provided on a square footage basis and located in a secured, environmentally conditioned area of a Verizon Virginia central office. *Id.* at ¶ 63.

[91] SCOPE is defined as collocation in the same secured environment as Traditional Physical Collocation, only without a cage and the space may be shared with other CLECs. *Id.* at ¶ 64; Exhibit No. 19.

[92] CCOE is defined as collocation, which permits a CLEC to place its physical collocation equipment in single-bay increments in a Verizon Virginia central office. *Id.*

[93] Virtual Collocation is defined as collocation where a CLEC leases its equipment to Verizon Virginia, which installs, maintains, upgrades and repairs the equipment at the CLEC's direction. Exhibit No. 1, at ¶ 65.

[94] Shared Collocation is defined as permitting one traditional physically collocated CLEC to become a host to another collocating "guest" CLEC. *Id.* at ¶ 66.

[95] Adjacent Structure Collocation permits a CLEC to procure a controlled environment adjacent to a Verizon Virginia central office. *Id.* at ¶ 67.

[96] CATT permits a CLEC to bring fiber facilities into a Verizon Virginia central office to provide interoffice transport facilities to other CLECs that are physically or virtually collocated in the Verizon Virginia central office, without establishing physical collocation arrangements of its own. *Id.* at ¶ 68.

[97] CRTEE provides physical or virtual collocation in Verizon Virginia's remote terminal equipment enclosures. *Id.* at ¶ 69.

[98] *Id.* at ¶ 72.

Verizon Virginia stated that it posts information on the availability of collocation space in its central offices on its website.[99] When Verizon Virginia denies a request for physical collocation due to space limitations, Verizon Virginia provides CLECs with an opportunity to tour such central offices.[100] In addition, in accordance with FCC and Commission rules, Verizon Virginia files central office space exhaustion notifications with the Commission, which explain the types of physical collocations present or pending and the reason(s) a CLEC's request for physical collocation cannot be accommodated.[101]

Verizon Virginia asserted that it has established methods and procedures to provide CLECs with quality collocation arrangements.[102] These procedures include inspections of collocation arrangements prior to turning over the arrangements to CLECs for installation of their equipment and the testing of cross connections upon completion of a collocation arrangement.[103] In addition, Verizon Virginia provides CLECs with a standard collocation application form, along with instructions and other information concerning CLECs' collocation rights and responsibilities, on its wholesale website.[104]

Rates and charges for each of Verizon Virginia's collocation offerings are contained in its Virginia Collocation Tariff. The Commission has approved the Virginia Collocation Tariff on an interim basis, subject to refund.[105]

Cavalier

In Cavalier's panel testimony, Martin W. Clift, Jr. , vice president of regulatory affairs for Cavalier; Larry Sims, vice president of engineering and operations for Cavalier; Patti Connelly, director of Cavalier's Call Center; Matt Ashenden, director of engineering for Cavalier; Amy Webb, provisioning and repair manager for Cavalier; and Gary Timm, chief technical officer for Cavalier; ("Cavalier Panel") pointed to issues concerning collocation and geographically relevant interconnection points ("GRIPs") as evidence that Verizon Virginia fails Checklist Item 1.[106] Cavalier asserted several problems with collocation including: (i) excessive costs for initial collocation sites; (ii) excessive wait times for collocation sites; (iii) misrepresentation of the availability of collocation space; (iv) excessive power charges; (v) unjustified power charges; (vi) excessive collocation augment charges; (vii) excessive collocation augment waiting periods; (viii) unreasonable restrictions on the use of cell phones; (ix) unreasonable restrictions on minor details like the use of tie wraps; (x) inadequate access to

[99] *Id.* at ¶ 79.
[100] *Id.* at ¶ 80.
[101] *Id.* at ¶ 81.
[102] *Id.* at ¶ 82.
[103] *Id.* at ¶¶ 83-84.
[104] *Id.* at ¶¶ 87-89.
[105] *Id.* at ¶ 90.
[106] Exhibit 72; Cavalier Panel, Tr. at 1077.

collocated equipment; and (xi) discriminatory and harassing treatment.[107] Because Verizon Virginia required Cavalier to sign a nondisclosure agreement prior to touring Verizon Virginia's central offices, Cavalier stated it was unable to provide specific examples regarding the misrepresentation of collocation space.[108]

As to GRIPs, Cavalier asserted that "Verizon fails Checklist Item 1 because it does not provide interconnection services in accordance with law."[109] Cavalier described GRIPs as a Verizon Virginia strategy "to force CLECs to build facilities to [Verizon Virginia] end offices, where they physically interconnect, and then insist that is where [Verizon Virginia's] financial responsibility ends."[110] Cavalier contended Verizon Virginia routinely orders transport services over Cavalier's network to complete and terminate Verizon Virginia's originated calls, but refuses to compensate Cavalier for this service.[111] At the same time Verizon Virginia insists that Cavalier compensate Verizon Virginia for the transport of Cavalier originated traffic.[112] Cavalier claimed that Verizon Virginia paid for this service "for the first six months," but has refused to pay since then.[113] Cavalier argued that Verizon Virginia's GRIPs policy "is contrary to the basic 'originator pays' principles at the core of interconnecting networks under the Telecommunications Act."[114]

Cox

Shawn R. Mounce, switch manager for Cox, described trunk blocking issues and presented recommended improvements.[115] According to Mr. Mounce, Cox is not currently experiencing inadequate trunk facilities between Cox and Verizon Virginia.[116] However, Mr. Mounce maintained that Cox's customers have experienced intermittent problems in completing calls through Verizon Virginia's network to Verizon Virginia's own customers and interexchange carriers via the Verizon Virginia tandem.[117] Furthermore, Mr. Mounce asserted that in such situations, Verizon Virginia's customers are unable to call Cox's customers.[118] Mr. Mounce argued that these problems directly impact the confidence and retention of its customers even though the network problems identified were within Verizon Virginia's sole custody and control.[119]

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[107] Exhibit 72, at 10-16.
[108] *Id.* at 11-12.
[109] *Id.* at 4.
[110] *Id.* at 7-8.
[111] *Id.* at 6-7.
[112] *Id.*
[113] *Id.* at 7.
[114] *Id.* at 9.
[115] Exhibit No. 82.
[116] *Id.* at 3.
[117] *Id.* at 6-8.
[118] *Id.*
[119] *Id.*

Mr. Mounce testified that these problems could be lessened with cooperative network planning, the joint exchange of traffic and trunk forecasts, and unilateral exchange of joint network trouble reports.[120] Mr. Mounce declared that Verizon Virginia does not provide such data to CLECs even though Verizon Virginia requires these forecasts from CLECs. Mr. Mounce cited the example of quarterly meetings between Cox and Verizon Virginia in which Cox provides its data to Verizon Virginia but does not receive Verizon Virginia data in exchange.[121]

Moreover, Mr. Mounce submitted that Cox should be able to make its own economic decision on whether to provision direct trunk groups or to route traffic over a common trunk group to a tandem switch (at a premium) with the real expectation of reliable network performance.[122]

Mary Clarke, local exchange carrier manager for Cox, among other things, presented testimony on collocation problems Cox experiences with Verizon Virginia. For example, Ms. Clarke stated that because of ordering and construction delays associated with ordering and implementing collocation with Verizon Virginia, Cox has been forced to purchase transport and order additional interconnection trunks through the Verizon Virginia tandem.[123] More specifically, Ms. Clarke insisted that the Verizon Virginia process for ordering and provisioning virtual collocation space is full of delays and lacks cooperation between the joint providers of service.[124] Ms. Clarke observed that Verizon Virginia's process is inefficient and fails to allow non-critical phases to proceed in parallel to reduce the turn-up time for equipment.[125] Ms. Clarke recommended that the process be improved by immediately setting up a planning meeting for reviewing the request, setting due dates and coordinating any activities and additional information needed to get the collocation set up.[126]

WorldCom

Allen Freifeld, an attorney with WorldCom's Law and Public Policy group, argued that the Commission is not in a position to fulfill a consultative role in this proceeding and should not opine on Verizon Virginia's compliance with competitive Checklist Items 1, 2, 3, 4, 6, 10, 13, and 14.[127] Because the Commission determined that it could not waive its sovereign immunity and therefore could not conduct arbitrations under the Act, WorldCom asked the FCC to arbitrate.[128] Thus, Mr. Freifeld stated that "[u]ntil and unless those issues are resolved and a

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[120] *Id.* at 9.
[121] *Id.* at 6.
[122] *Id.* at 8.
[123] Exhibit No. 70, at 6-7.
[124] *Id.* at 6-7.
[125] *Id.*
[126] *Id.* at 8.
[127] Exhibit No. 65, at ¶ 3.
[128] *Id.*; *In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation*
(continued . . . .)

contract has been signed, Verizon [Virginia] cannot be said to have complied with the Checklist items that relate to the issues in the arbitration."[129] Mr. Freifeld listed the following interconnection issues in dispute in the FCC arbitration: (i) multiple rather than one point of interconnection, (ii) traffic origination charges, (iii) mid-span meet point arrangements, (v) indirect interconnection, interconnection via two-way trunks, and access charges on interconnection facilities.[130]

Covad

Covad offered the testimony of Valerie Evans, vice president of external affairs for Covad, and Michael Clancy, director of external affairs for Covad ("Covad Panel"), which, among other things, discussed a collocation issue.[131] Covad objected to Verizon Virginia's requirement that CLECs must move their virtually collocated equipment to another part of the central office in order to convert the arrangement to a cageless collocation.[132] Covad argued that there is no technical difference between a virtual collocation and cageless collocation except that with virtual, the CLEC must cede ownership and control of its equipment to its competitor, Verizon Virginia.[133] Covad reported that Verizon Virginia's position on the virtual-to-cageless conversion required Covad to: (i) incur the cost of buying additional equipment to collocate in another, secured part of the central office; (ii) incur the cost of a second collocation application; (iii) await a full collocation interval (presumably 105 calendar days) for Verizon Virginia's site preparation and installation of additional security; (iv) interrupt customer service while it turns up service in the new collocation site; and (v) delay service to other, prospective customers who are served out of these central offices.[134]

NTELOS

Steven H. Goodman, director-regulatory & business development for NTELOS, argued that Verizon Virginia fails to provide the same level of quality of interconnection to NTELOS as it provides to itself.[135] Mr. Goodman stated that NTELOS has experienced a number of outages affecting its interconnection facilities.[136] Based on its experience, Mr. Goodman asserted that Verizon Virginia has demonstrated that it does not treat competitors' facilities with same care that its own.[137] Mr. Goodman provided one example of a trunk outage caused by Verizon

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(Continued from previous page)
Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration, CC Docket No. 00-218.
[129] Exhibit No. 65, at ¶ 3.
[130] *Id.* at ¶ 7.
[131] Exhibit No. 48, at ¶ 46.
[132] *Id.*
[133] *Id.*
[134] *Id.*
[135] Exhibit No. 91, at 3-4.
[136] *Id.* at 3.
[137] *Id.*

Virginia that was not resolved for six hours even though the trouble escalated through four levels of Verizon Virginia's management.[138] As a result of this one outage, Mr. Goodman reported that NTELOS lost several large business customers.[139]

Verizon Virginia – Reply

In its Reply Checklist Declaration, Verizon Virginia asserted that "[a] GRIPs provision is included in the interconnection agreement that Cavalier agreed to in Virginia."[140] Verizon Virginia maintained that the Cavalier interconnection agreement established Interconnection Points (IPs) and points of interconnection (POIs), and that Verizon Virginia's financial responsibility ends at the IPs.[141] Verizon Virginia argued that Cavalier is complaining about Verizon Virginia's refusal "to pay for transporting the traffic *after* the traffic passes the agreed-upon GRIP – where Cavalier's [interconnection agreement] explicitly puts financial responsibility for carrying the traffic on *Cavalier,* not *Verizon.*"[142] In addition Verizon Virginia contended that the FCC, in its order approving the Pennsylvania 271 application, has found that similar GRIPs provisions do not violate the FCC's existing rules. Moreover, Verizon Virginia argued that this proceeding "is not an alternative avenue for resolving specific intercarrier disputes."[143]

4. Discussion

The issues raised concerning interconnection will be grouped into three categories, (i) trunking, (ii) collocation, and (iii) FCC arbitrations.

Trunking

Cox and NTELOS raised issues concerning trunk blocking. Cox challenges the efficacy of the performance measure used to measure trunk blocking for final trunk groups.[144] In addition, Cox requests that Verizon Virginia file trouble reports with Cox when problems occur between the networks and that Verizon Virginia provide CLECs with its trunk forecasts and arrange quarterly planning meetings.[145] During the hearing, Cox witness Mounce described a recent trunk-blocking incident.[146] NTELOS witness Goodman reported on a trunk-blocking situation that resulted in the loss of several large business customers.[147] Furthermore, the GRIPS issue, as presented by Cavalier and the VCTA, is discussed in this section.

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[138] *Id.*
[139] *Id.* at 3-4.
[140] Exhibit No. 8, ¶ 27.
[141] *Id.*
[142] *Id.* at ¶ 29 (emphasis in the original).
[143] *Id.* at ¶ 32.
[144] Cox Brief at 14-15.
[145] *Id.* at 15-17.
[146] Mounce, Tr. at 1145; Exhibit No. 83.
[147] Exhibit No. 91, at 3-4.

Verizon Virginia stresses its actual commercial performance in Virginia. Selected performance metrics related to trunk performance for the three months ending April 2002, are shown in the following tables:[148]

Trunk Blocking

Metric	February 2002		March 2002		April 2002	
	Verizon	CLEC	Verizon	CLEC	Verizon	CLEC
NP-1-01 % Final Trunk Groups Exceeding Blocking Standard (no std)	1.82	0.99	0.00	0.00	0.97	1.08
NP-1-02 % FTG Exceeding Blocking Std – No Exceptions (no std)	1.82	3.96	0.00	5.21	0.97	9.68
NP-1-03 Number FTG Exceeding Blocking Std – 2 Months (no std)	N/R[149]	1	N/R	0	N/R	0
NP-1-04 Number FTG Exceeding Blocking Std – 3 Months (no std)	N/R	0	N/R	0	N/R	0

Trunk Provisioning

Metric	February 2002		March 2002		April 2002	
	Verizon	CLEC	Verizon	CLEC	Verizon	CLEC
PR-2-09 Av. Interval Completed – Total – (<= 192 Forecasted Trunks) – Parity	9.50	16.00	12.29	NA[150]	8.67	6.50
PR-2-09 Av. Interval Completed – Total – (>192 Forecasted Trunks) – Parity	16.12	8.83	12.31	6.50	11.40	8.33

Trunk Maintenance

Metric	February 2002		March 2002		April 2002	
	Verizon	CLEC	Verizon	CLEC	Verizon	CLEC
MR-2-01 Network Trouble Report Rate (parity with IXC/FGD)	0.02	0.01	0.03	0.02	0.02	0.01
MR-4-01 Mean Time To Repair – Total (parity)	3.59	4.06	2.15	2.44	1.97	1.67
MR-4-04 % Cleared (all troubles) within 24 Hours (parity)	95.43	100.00	100.00	100.00	100.00	100.00
MR-4-05 % Out of Service > 2 Hours (parity)	37.50	72.22	31.03	32.26	29.51	36.36

[148] Exhibit No. 12, Attachment No. 407.
[149] N/R designates "Not Reported."
[150] NA designates "No Activity."

MR-4-06 % Out of Service > 4 Hours (parity)	14.29	33.33	10.34	6.45	1.64	9.09
MR-4-07 % Out of Service > 12 Hours (parity)	7.14	5.56	1.15	3.23	1.64	0.00
MR-4-08 % Out of Service > 24 Hours (parity)	3.57	0.00	0.00	0.00	0.00	0.00
MR-5-01 % Repeat Reports within 30 Days (parity with IXC/FGD)	5.36	11.11	6.90	0.00	8.20	0.00

I agree with Verizon Virginia that its commercial performance in Virginia was good. In particular, the MR-2-01 shows that there were few troubles reported. MR-4 and MR-5 show that Verizon Virginia repaired the few troubles that were reported within hours.

In addition, the trunk blockage metrics support Verizon Virginia's contention that it is meeting its interconnection obligations. As described in more detail below, performance metrics used to evaluate Verizon Virginia's performance are the product of an ongoing collaborative established by the Commission. This collaborative is ongoing because performance measures will continue to change and evolve in response to changes in OSS and the collective experience of the industry and the Commission. I agree with Verizon Virginia that Cox's issue regarding trunk blocking metrics is best addressed in the Commission's collaborative.

Cox made several requests related to network problems. It requested that Verizon Virginia provide Cox with network trouble reports when troubles occur on Verizon Virginia's network that may affect Cox's network, and that Verizon Virginia provide Cox with its trunk forecasts and arrange quarterly planning meetings. Verizon Virginia contended in its Reply Checklist Declaration that Cox's requests were not required for compliance with the checklist, and were unworkable or the subject of an FCC arbitration.[151] I agree with Verizon Virginia that the requests made by Cox go beyond what has been required of Verizon in other states. Absent more compelling evidence of disparities in trunk group blockage and how Cox's requests would help resolve such disparities, such requirements should not be imposed on Verizon Virginia as a precondition of Commission support for approval of § 271 authority.

As to the specific trunk blocking incidents described by Cox and NTELOS, these instances of trunk blocking serve to illustrate the importance of trunk blocking on affected CLECs and their customers. These incidents fail to disprove the overall commercial performance by Verizon Virginia.

Regarding GRIPs, Cavalier argues that Cavalier must pay Verizon Virginia for transport over Verizon Virginia's facilities, but that Verizon Virginia refuses to pay Cavalier for transport over Cavalier's facilities.[152] Also, Cavalier contends that the *Verizon Pennsylvania Order* involved a completely different set of facts than the facts at issue in this proceeding.[153] In its

[151] Exhibit No. 8, ¶¶ 38-41.
[152] Cavalier Brief at 4.
[153] *Id.*

brief, the VCTA maintains that Verizon Virginia furnishes CLECs physical interconnection, but at rates, terms, and conditions that are less favorable than those offered by Verizon Virginia to other ILECs as Infrastructure Sharing Agreements pursuant to § 259 of the Act.[154] Verizon Virginia countered that the FCC upheld its position on GRIPs in Pennsylvania and New Jersey.[155] In addition, Verizon Virginia states that GRIPs is contained in the Verizon Virginia – Cavalier Interconnection Agreement and is intended to share the cost of transport between two carriers.[156] Finally, Verizon Virginia notes that Cavalier's dispute regarding GRIPs is the subject of a complaint with this Commission.[157]

Based on the *Verizon Pennsylvania Order* and the *Verizon New Jersey Order*, Verizon Virginia appears to be correct that the FCC has found GRIPs does not violate its rules related to interconnection and transport (Checklist Items 1 and 5). Indeed, the FCC cited to comments by Cavalier NJ and concluded "Verizon has demonstrated that it has entered into at least one interconnect at a single *physical* point in a LATA."[158] Further, considering that Cavalier has a pending complaint on the matter, and thus has a potential vehicle to resolve its grievance, I find that GRIPs does not present a barrier to Verizon Virginia meeting Checklist Items 1 and 5.

However, in the *Verizon New Jersey Order*, the FCC noted that the GRIPs language contained in the interconnection agreement reviewed in New Jersey "might raise potential compliance issues with our current rules governing reciprocal compensation if it were the only terms available to competing carriers in New Jersey, our issues of compliance."[159] This suggests that Cavalier may have a legitimate pricing issue in the proper forum. But, as the FCC indicates, a § 271 proceeding is not the proper forum. There has been no showing, or complaint that the GRIPs language is the only language available for reciprocal compensation. Nor does this appear to be the case based on a review of the interconnection agreements supplied by Verizon Virginia.[160]

Concerning the VCTA complaint that Verizon Virginia has failed to provide access to four § 259 agreements, I find that the VCTA has failed to provide any evidence that such a failure is a barrier to competition for CLECs in Virginia.

Collocation

Cavalier raises several issues related to the terms, conditions, and costs of collocation. On June 28, 2002, the Commission issued its *Virginia Collocation Order*, approving changes to the Virginia Collocation Tariff. These changes answer most of the issues complained of by Cavalier. The remaining issues, such as access problems, the prohibition against tie wraps, and

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[154] VCTA Brief at 2-7.
[155] Verizon Virginia Brief at 13.
[156] *Id.* at 12.
[157] *Id.* at 13.
[158] *Verizon New Jersey* at ¶ 155.
[159] *Id.*
[160] *See*, Exhibit No. 1, Attachments 203a through 203h.

"an alarming incident in which one of [Verizon Virginia's] employees climbed onto a Cavalier equipment rack and shook it"[161] fail to support a finding that such practices preclude an efficient carrier a reasonable opportunity to compete. Nor do these incidents prove systematic practices that are unjust, unreasonable, and discriminatory.

Cox entered the case seeking to formalize a process by which Verizon Virginia's project manager, who oversees the actual installation, meets upfront with and reviews Cox's collocation applications.[162] Verizon Virginia has agreed to formalize this arrangement.[163] However, there appears to be a question concerning whether the formalized arrangement will become part of Verizon's business rules. Verizon Virginia argues that whether this arrangement is memorialized in its formal business rules is not a checklist compliance issue.[164] I agree that checklist compliance does not hinge on how the agreement is formalized, but this assumes that the practice will be formalized. Thus, approval of this Checklist Item is based, in part, upon Verizon Virginia's agreement to formalize this process.

Finally, Covad criticized Verizon Virginia's practices regarding conversions from virtual to cageless collocation arrangements.[165] Verizon Virginia points out that the FCC rejected this same claim in Pennsylvania.[166] In that proceeding, the FCC invited Covad to file a complaint concerning this issue.[167] In this case, Covad failed to provide any evidence that would support a different finding or treatment of the issue in Virginia.

FCC Arbitrations

WorldCom argues that the pending FCC arbitration must be resolved and Verizon Virginia must be performing under interconnection agreements reflecting the FCC's decision before a finding of checklist compliance can be issued.[168] Likewise, AT&T asserts that the Commission should limit its findings to items that are not before the FCC for decision.[169] On the other hand, Verizon Virginia takes the position that this Commission has taken all of the steps the FCC requires in order for the FCC to accord the Commission's recommendation "substantial weight," including (i) directed a lengthy, rigorous and open process, (ii) reviewed an extensive independent third-party test of Verizon Virginia's OSS, (iii) adopted a comprehensive performance measurement plan, and (iv) developed a performance assurance or remedy plan.[170]

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[161] Cavalier Brief at 3.
[162] Cox Brief at 12.
[163] Verizon Virginia's Brief at 17.
[164] *Id.*
[165] Exhibit No. 48, at ¶ 46.
[166] Verizon Virginia Brief at 17; *See*, *Verizon Pennsylvania Order* at ¶ 101.
[167] *Id.*
[168] WorldCom Brief at 6.
[169] AT&T Brief at 14.
[170] Verizon Virginia Brief at 7.

As the Commission has recognized, "the final decision in this matter lies with the FCC."[171] In fulfilling our consultative duties, this report will summarize the record before the Commission and explain the basis of its recommendation. The FCC may then accord our recommendation with the appropriate weight. Moreover, the focus of this proceeding is on what is currently in place, not what is currently before the FCC. In this regard, the record includes several interconnection agreements that were arbitrated and approved by this Commission and includes rates that were determined to be TELRIC compliant by this Commission. Furthermore, it seems reasonable for this Commission to assume that the FCC's decisions in the pending arbitrations will be in compliance with the Act and the FCC's rules. Therefore, I find that pending FCC arbitrations should not be determinative of whether this Commission makes a finding and recommendation to the FCC regarding Verizon Virginia's compliance with the Act.

5. Conclusion

Based on the record I find that Verizon Virginia meets the requirements of § 271(c)(2)(B)(i) to provide interconnection in accordance with the requirements of §§ 251(c)(2) and 252(d)(1).

B. Checklist Item 2 – Unbundled Network Elements

Section 271(c)(2)(B)(ii) requires Verizon Virginia to provide nondiscriminatory access to unbundled network elements ("UNEs") in accordance with the requirements of §§ 251(c)(3) and 252(d)(1).

1. Description

Section 251(c)(3) imposes a duty on Verizon Virginia "to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, conditions that are just, reasonable, and nondiscriminatory." Verizon Virginia must "provide such [UNEs] in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service."[172] Furthermore, Section 252(d)(1) defines just and reasonable 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 . . ., and nondiscriminatory, and may include a reasonable profit."

Following the general organization of recent FCC Orders concerning § 271, the analysis of Checklist Item 2 is organized into the following subsections: OSS, access to UNEs, and pricing of network elements.

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[171] *Preliminary Order* at 4.
[172] 47 U.S.C.S. § 251(c)(3).

2. Operation Support Systems

The FCC consistently has found that nondiscriminatory access to OSS is a prerequisite to the development of meaningful local competition.[173] For example, new entrants must have access to the functions performed by the incumbent's OSS in order to formulate and place orders for network elements or resale services, to install service to their customers, to maintain and repair network facilities, and to bill customers.[174] The FCC has determined that without nondiscriminatory access to the BOC's OSS, a competing carrier "will be severely disadvantaged, if not precluded altogether, from fairly competing" in the local exchange market.[175]

a) Description

OSS refers to the systems, databases, and personnel used by a BOC to provide services to customers in an accurate and timely manner as well as to ensure the quality of those services.[176] OSS functions, critical to CLECs, include pre-ordering, ordering, provisioning, maintenance and repair, and billing.[177] In addition, OSS encompasses a BOC's change management process and the technical assistance the BOC offers to CLECs.[178] Moreover, a BOC's OSS must support the three modes of competitive entry envisioned by the Act, *i.e.*, facilities based, UNE, and resale.[179]

b) Standard of Review

The FCC has established two standards for determining if a BOC provides CLECs nondiscriminatory access to its OSS, depending upon whether the specific function has a retail analogue. For OSS functions that are analogous to those that a BOC provides to itself, its customers or its affiliates, the nondiscrimination standard requires the BOC to offer requesting carriers access that is equivalent in terms of quality, accuracy, and timeliness.[180] The BOC must provide access that permits competing carriers to perform these functions in "substantially the same time and manner" as the BOC.[181] For example, the FCC would not deem an incumbent LEC to be providing nondiscriminatory access to OSS if limitations on the processing of information between the interface and the back office systems prevented a competitor from performing a specific function in substantially the same time and manner as the incumbent performs that function for itself.[182] The FCC has recognized in prior orders that there may be situations in which a BOC contends that, although equivalent access has not been achieved for

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[173] *Bell Atlantic New York Order* at ¶ 83; *Verizon New Jersey Order* at Appendix C ¶ 25.
[174] *Id.*
[175] *Id.*
[176] *Bell Atlantic New York Order* at n.12.
[177] KPMG Final Report at II-18 through II-19.
[178] *Id.*; *Bell Atlantic New York Order* at ¶ 81.
[179] *Bell Atlantic New York Order* at ¶ 85.
[180] *Id.*; *Verizon New Jersey Order* at Appendix C ¶ 27.
[181] *Id.*
[182] *Verizon New Jersey Order* at n.667.

an analogous function, the access that it provides is nonetheless nondiscriminatory within the meaning of the statute.[183]

For OSS functions that have no retail analogue, the BOC must offer access "sufficient to allow an efficient competitor a meaningful opportunity to compete."[184] In assessing whether the quality of access affords an efficient competitor a meaningful opportunity to compete, the FCC will examine, in the first instance, whether specific performance standards exist for those functions.[185] In particular, the FCC will consider whether appropriate standards for measuring OSS performance have been adopted by the relevant state commission or agreed upon by the BOC in an interconnection agreement or during the implementation of such an agreement.[186] Where such performance standards exist, the FCC will evaluate whether the BOC's performance is sufficient to allow an efficient competitor a meaningful opportunity to compete.[187] The FCC analyzes whether a BOC has met the nondiscrimination standard for each OSS function using a two-step approach.[188] First, the FCC determines "whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and whether the BOC is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them."[189] In making this determination, the FCC "consider[s] all of the automated and manual processes a BOC has undertaken to provide access to OSS functions," including the interface (or gateway) that connects the competing carrier's own operations support systems to the BOC; any electronic or manual processing link between that interface and the BOC's OSS (including all necessary back office systems and personnel); and all of the OSS that a BOC uses in providing network elements and resale services to a competing carrier.[190] The FCC next assesses "whether the OSS functions that the BOC has deployed are operationally ready, as a practical matter."[191]

Under the first inquiry, a BOC must demonstrate that it has developed sufficient electronic (for functions that the BOC accesses electronically) and manual interfaces to allow competing carriers equivalent access to all of the necessary OSS functions.[192] For example, a BOC must provide competing carriers with the specifications necessary for carriers to design or modify their systems in a manner that will enable them to communicate with the BOC's systems and any relevant interfaces.[193] In addition, a BOC must disclose to competing carriers any

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[183] *Bell Atlantic New York Order* at ¶ 85; *Verizon New Jersey Order* at Appendix C ¶ 27.
[184] *Bell Atlantic New York Order* at ¶ 86; *Verizon New Jersey Order* at Appendix C ¶ 28.
[185] *Id.*
[186] *Id.*
[187] *Id.*
[188] *Bell Atlantic New York Order* at ¶ 87; *Verizon New Jersey Order* at Appendix C ¶ 29.
[189] *Id.*
[190] *Verizon New Jersey Order* at n.673.
[191] *Bell Atlantic New York Order* at ¶ 88; *Verizon New Jersey Order* at Appendix C ¶ 29.
[192] *Verizon New Jersey Order* at Appendix C ¶ 30.
[193] *Id.*

internal business rules[194] and other formatting information necessary to ensure that a carrier's requests and orders are processed efficiently.[195] Finally, a BOC must demonstrate that its OSS is designed to accommodate both current demand and projected demand for competing carriers' access to OSS functions.[196] Although not a prerequisite, the FCC continues to encourage the use of industry standards as an appropriate means of meeting the needs of a competitive local exchange market.[197]

Under the second inquiry, the FCC examines performance measurements and other evidence of commercial readiness to ascertain whether the BOC's OSS is handling current demand and will be able to handle reasonably foreseeable future volumes.[198] The most probative evidence that OSS functions are operationally ready is actual commercial usage.[199] Absent sufficient and reliable data on commercial usage, the FCC will consider the results of carrier-to-carrier testing, independent third-party testing, and internal testing in assessing the commercial readiness of a BOC's OSS.[200] Although the FCC does not require OSS testing, a persuasive test will provide it with an objective means by which to evaluate a BOC's OSS readiness where there is little to no evidence of commercial usage, or may otherwise strengthen an application where the BOC's evidence of actual commercial usage is weak or is otherwise challenged by competitors.[201] The persuasiveness of a third-party review, however, is dependent upon the qualifications, experience and independence of the third party and the conditions and scope of the review itself.[202] If the review is limited in scope or depth or is not independent and blind, the FCC will give it minimal weight.[203] As noted above, to the extent the FCC reviews performance data, it looks at the totality of the circumstances and generally does not view individual performance disparities, particularly if they are isolated and slight, as dispositive of whether a BOC has satisfied its checklist obligations.[204] Individual performance disparities may, nevertheless, result in a finding of checklist noncompliance, particularly if the disparity is substantial or has endured for a long time, or if it is accompanied by other evidence of discriminatory conduct or evidence that competing carriers have been denied a meaningful opportunity to compete.[205]

Pre-Ordering

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[194] Business rules refer to the protocols that a BOC uses to ensure uniformity in the format of orders and include information concerning ordering codes such as universal service ordering codes (USOCs) and field identifiers (FIDs). *Id.*; *See also Ameritech Michigan Order* at n.335.
[195] *Bell Atlantic New York Order* at ¶ 88; *Verizon New Jersey Order* at Appendix C ¶ 30.
[196] *Id.*
[197] *See id.*
[198] *Bell Atlantic New York Order* at ¶ 89; *Verizon New Jersey Order* at Appendix C ¶ 31.
[199] *Id.*
[200] *Id.*
[201] *Verizon New Jersey Order* at Appendix C ¶ 31.
[202] *Bell Atlantic New York Order* at ¶ 89; *Verizon New Jersey Order* at Appendix C ¶ 31.
[203] *Verizon New Jersey Order* at Appendix C ¶ 31.
[204] *Verizon New Jersey Order* at Appendix C ¶ 31; *See SWBT Kansas/Oklahoma Order* at ¶ 138.
[205] *Verizon New Jersey Order* at Appendix C ¶ 31.

A BOC must demonstrate that: (i) it offers nondiscriminatory access to OSS pre-ordering functions associated with determining whether a loop is capable of supporting xDSL advanced technologies; (ii) competing carriers successfully have built and are using application-to-application interfaces to perform pre-ordering functions and are able to integrate pre-ordering and ordering interfaces; and (iii) its pre-ordering systems provide reasonably prompt response times and are consistently available in a manner that affords competitors a meaningful opportunity to compete.[206] In prior orders, the FCC 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. [207] In addition, the FCC 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 their customers as efficiently and at the same level of quality as a BOC serves its own customers. [208]

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.[209] In prior orders, the FCC has identified the following five pre-order functions: (i) customer service record (CSR) information; (ii) address validation; (iii) telephone number information; (iv) due date information; (v) services and feature information.[210] Because pre-ordering represents the first exposure that a prospective customer has to a competing carrier, it is critical that a competing carrier is able to accomplish pre-ordering activities in a manner no less efficient and responsive than the incumbent.[211] Most of the pre-ordering activities that must be 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.[212] For these pre-ordering functions, a BOC must demonstrate that it provides requesting carriers access that enables them to perform pre-ordering functions in substantially the same time and manner as its

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[206] *Id.* at ¶ 33.
[207] *SWBT Texas Order* at ¶ 148; *Verizon New Jersey Order* at n.691.
[208] *Bell Atlantic New York Order* at ¶¶ 145, 154; *Verizon New Jersey Order* at n.692.
[209] *Bell Atlantic New York Order* at ¶ 129; *Verizon New Jersey Order* at Appendix C ¶ 34.
[210] *Verizon New Jersey Order* at n.693; *See Bell Atlantic New York Order* at ¶ 132; *Application by BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, 13 FCC Rcd 20599, 20660, ¶ 94 (1998) ("*Second BellSouth Louisiana Order*"); *Application by BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Service in South Carolina,* CC Docket No. 97-208*,* Memorandum Opinion and Order, 13 FCC Rcd 539, 619, ¶ 147 ("*BellSouth South Carolina Order*").
[211] *Bell Atlantic New York Order* at ¶ 129; *Verizon New Jersey Order* at Appendix C ¶ 34.
[212] *Verizon New Jersey Order* at Appendix C ¶ 34.

retail operations.[213] For those pre-ordering functions that lack a retail analogue, a BOC must provide access that affords an efficient competitor a meaningful opportunity to compete.[214]

In accordance with the *UNE Remand Order*,[215] the FCC requires incumbent carriers to provide competitors with access to all of the same detailed information about the loop that is available to the incumbents, and in the same time frame, so that a competing carrier can make an independent judgment at the pre-ordering stage about whether an end user loop is capable of supporting the advanced services equipment the competing carrier intends to install.[216] At a minimum, a BOC must provide: (i) the composition of the loop material, including both fiber and copper; (ii) 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; (iii) the loop length, including the length and location of each type of transmission media; (iv) the wire gauge(s) of the loop; and (v) the electrical parameters of the loop, which may determine the suitability of the loop for various technologies.[217] As the FCC has explained in prior proceedings, 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 makeup 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.[218]

Under the *UNE Remand Order*, the relevant inquiry is not whether a BOC's retail arm accesses such underlying information but whether such information exists anywhere in a BOC's back office and can be accessed by any of a BOC's personnel.[219] Moreover, a BOC may not "filter or digest" the underlying information and may not provide only information that is useful in provisioning of a particular type of xDSL that a BOC offers.[220] A BOC must also 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 the BOC provides

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[213] *Id.*

[214] *Bell Atlantic New York Order* at ¶ 129; *Verizon New Jersey Order* at Appendix C ¶ 34.

[215] *In the Matter of 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, ¶ 426 (1999)("*UNE Remand Order*") (*vacated and remanded*, *USTA v. FCC*, 2002 WL 1040574 (D.C.Cir. May 24, 2002) ("*USTA v. FCC*")).

[216] *Id.* at ¶ 426; *Verizon New Jersey Order* at Appendix C ¶ 35.

[217] *UNE Remand Order* at ¶ 426; *Verizon New Jersey Order* at n.699.

[218] *UNE Remand Order* at ¶ 426; *Verizon New Jersey Order* at n.700; *Bell Atlantic New York Order* at ¶ 140.

[219] *UNE Remand Order* at ¶¶ 427-431 (noting that "to the extent such information is not normally provided to the incumbent's retail personnel, but can be obtained by contacting back office personnel, it must be provided to requesting carriers within the same time frame that any incumbent personnel are able to obtain such information."); *Verizon New Jersey Order* at Appendix C ¶ 35.

[220] *Verizon New Jersey Order* at Appendix C ¶ 35.

such information to itself.[221] Moreover, a BOC must also provide access for competing carriers to the loop qualifying information that the BOC can itself access manually or electronically.[222] Finally, a BOC must provide access to loop qualification information to competitors within the same time intervals it is provided to the BOC's retail operations or its advanced services affiliate.[223] However, as the FCC determined in the *UNE Remand Order*, "to the extent such information is not normally provided to the incumbent's retail personnel, but can be obtained by contacting back office personnel, it must be provided to requesting carriers within the same time frame that any incumbent personnel are able to obtain such information."[224]

On May 24, 2002, the D.C. Circuit Court of Appeals vacated and remanded the *UNE Remand Order* to the FCC.[225] FCC Chairman Powell issued the following statement regarding the court's decision:

> The Court's decision today directs the Commission to undertake a more focused examination of the Act's unbundling obligations. The Commission is currently examining its unbundling framework, including line sharing rules, in its Triennial Review notice, which is presently open for public comment. We will be exploring many of the issues that the Court raised in its opinion in the coming months as we evaluate the record in this proceeding. While we continue to evaluate the Court's opinion and consider all the Commission's options, in the meantime, the current state of affairs for access to network elements remains intact.[226]

Ordering

Consistent with section 271(c)(2)(B)(ii), a BOC must demonstrate its ability to provide competing carriers with access to the OSS functions necessary for placing wholesale orders.[227] For those functions of the ordering systems for which there is a retail analogue, a BOC must demonstrate, with performance data and other evidence, that it provides competing carriers with access to its OSS in substantially the same time and manner as it provides to its retail operations.[228] For those ordering functions that lack a direct retail analogue, a BOC must demonstrate that its systems and performance allow an efficient carrier a meaningful opportunity to compete.[229] The FCC looks primarily at the applicant's ability to return order confirmation

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[221] *Id.*
[222] *Id.*
[223] *Id.*
[224] *Id.*; *UNE Remand Order* at ¶¶ 427-31.
[225] *USTA v. FCC*.
[226] Available at http://www.fcc.gov/Speeches/Powell/Statements/2002/stmkp212.html.
[227] *Verizon New Jersey Order* at Appendix C ¶ 36.
[228] *Id.*
[229] *Id.*

notices, order reject notices, order completion notices and jeopardies, and at its order flow-through rate.[230] More specifically, the FCC examines (i) order flow-through rates, (ii) jeopardy notices and (iii) order completion notices using the "same time and manner" standard.[231] The Commission examines order confirmation notices and order rejection notices using the "meaningful opportunity to compete" standard.[232]

Provisioning

A BOC must provision 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.[233] The FCC examines a BOC's provisioning processes, as well as its performance with respect to provisioning timeliness (i.e., missed due dates and average installation intervals) and provisioning quality (i.e., service problems experienced at the provisioning stage).[234] For provisioning timeliness, the FCC looks to missed due dates and average installation intervals; for provisioning quality, the FCC looks to service problems experienced at the provisioning stage.[235]

Maintenance and Repair

A competing carrier that provides service through resale or UNEs remains dependent upon the incumbent LEC for maintenance and repair.[236] Thus, as part of its obligation to provide nondiscriminatory access to OSS functions, a BOC must provide requesting carriers with nondiscriminatory access to its maintenance and repair systems.[237] To the extent a BOC performs analogous maintenance and repair functions for its retail operations, it must provide competing carriers access that enables them to perform maintenance and repair functions "in substantially the same time and manner" as a BOC provides its retail customers.[238] Equivalent access ensures that competing carriers can assist customers experiencing service disruptions using the same network information and diagnostic tools that are available to BOC personnel.[239] Without equivalent access, a competing carrier would be placed at a significant competitive disadvantage, as its customer would perceive a problem with a BOC's network as a problem with the competing carrier's own network.[240]

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[230] *Id.*; *SWBT Texas Order* at ¶ 170; *Bell Atlantic New York Order* at ¶¶ 163-66.
[231] *Verizon New Jersey Order* at n.705.
[232] *Id.*
[233] *Id.* at Appendix C ¶ 37; *See Bell Atlantic New York* at ¶ 196.
[234] *Id.*
[235] *Verizon New Jersey Order* at n.706.
[236] *Verizon New Jersey Order* at Appendix C ¶ 38.
[237] *Id.*; *Bell Atlantic New York Order* at ¶ 212.
[238] *Bell Atlantic New York Order* at ¶ 196; *Verizon New Jersey Order* at Appendix C ¶ 38.
[239] *Id.*
[240] *Id.*

Billing

A BOC must provide nondiscriminatory access to its billing functions, which is necessary to enable competing carriers to provide accurate and timely bills to their customers.[241] In making this determination, the FCC assesses a BOC's billing processes and systems, and its performance data.[242] Consistent with prior section 271 orders, a BOC must demonstrate that it provides competing carriers with complete and accurate reports on the service usage of competing carriers' customers in substantially the same time and manner that a BOC provides such information to itself, and with wholesale bills in a manner that gives competing carriers a meaningful opportunity to compete.[243]

Change Management Process

Competing carriers need information about, and specifications for, an incumbent's systems and interfaces to develop and modify their systems and procedures to access the incumbent's OSS functions.[244] Thus, in order to demonstrate that it is providing nondiscriminatory access to its OSS, a BOC must first demonstrate 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."[245] By showing that it adequately assists competing carriers to use available OSS functions, a BOC provides evidence that it offers an efficient competitor a meaningful opportunity to compete.[246] As part of this demonstration, the FCC will give substantial consideration to the existence of an adequate change management process and evidence that the BOC has adhered to this process over time.[247]

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.[248] Such changes may include updates to existing functions that impact competing carrier interface(s) upon a BOC's release of new interface software; technology changes that require competing carriers to meet new technical requirements upon a BOC's software release date; additional functionality changes that may be used at the competing carrier's option, on or after a BOC's release date for new interface software; and changes that may be mandated by regulatory authorities.[249] Without a change management process in place, a

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[241] *SWBT Texas Order* at ¶ 210; *Verizon New Jersey Order* at Appendix C ¶ 39.
[242] *Verizon New Jersey Order* at Appendix C ¶ 39.
[243] *SWBT Texas Order* at ¶ 210; *SWBT Kansas/Oklahoma Order* at ¶ 163; *Verizon New Jersey Order* at Appendix C ¶ 39.
[244] *Bell Atlantic New York Order* at ¶ 102; *BellSouth South Carolina Order* at n.467; *Ameritech Michigan Order* at n.334; *Verizon New Jersey Order* at Appendix C ¶ 40.
[245] *Bell Atlantic New York Order* at ¶ 102; *Verizon New Jersey Order* at Appendix C ¶ 40.
[246] *Id.*
[247] *Id.*
[248] *Bell Atlantic New York Order* at ¶ 103; *Verizon New Jersey Order* at Appendix C ¶ 41.
[249] *Id.*

BOC can impose substantial costs on competing carriers simply by making changes to its systems and interfaces without providing adequate testing opportunities and accurate and timely notice and documentation of the changes.[250] Change management problems can impair a competing carrier's ability to obtain nondiscriminatory access to UNEs, and hence a BOC's compliance with section 271(2)(B)(ii).[251]

In evaluating whether a BOC's change management plan affords an efficient competitor a meaningful opportunity to compete, the FCC first assesses whether the plan is adequate.[252] In making this determination, the FCC assesses whether the evidence demonstrates: (i) that information relating to the change management process is clearly organized and readily accessible to competing carriers;[253] (ii) that competing carriers had substantial input in the design and continued operation of the change management process;[254] (iii) that the change management plan defines a procedure for the timely resolution of change management disputes;[255] (iv) the availability of a stable testing environment that mirrors production;[256] and (v) the efficacy of the documentation the BOC makes available for the purpose of building an electronic gateway.[257] After determining whether the BOC's change management plan is adequate, the Commission evaluates whether the BOC has demonstrated a pattern of compliance with this plan.[258]

c) Summary of the Evidence Before the Commission

Evidence concerning OSS was presented by Verizon Virginia, Cavalier, Cox, AT&T, WorldCom, Covad, NTELOS, and Staff.

Verizon Virginia – Direct Case

Verizon Virginia addressed OSS issues in its OSS Declaration of Kathleen McLean, senior vice president, OSS Policy and Performance Assurance organization for Verizon Services Corp.; Beth Cohen, director, OSS Policy and Performance Assurance organization for Verizon Services Corp; Warren Geller, director, Wholesale Billing Assurance and Solutions for Verizon Services Corp.; Paul Haven, director, CLEC Operations for Verizon Services Corp;[259] Maryellen Langstine, director, Wholesale Customer Support for Verizon Services Corp.; Jonathan Smith, executive director, Local Interconnection Billing and Wholesale Billing Support for Verizon

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[250] *Id.*
[251] *Id.*
[252] *Verizon New Jersey Order* at Appendix C ¶ 42.
[253] *Bell Atlantic New York Order* at ¶ 107; *Verizon New Jersey Order* at Appendix C ¶ 42.
[254] *Bell Atlantic New York Order* at ¶ 104; *Verizon New Jersey Order* at Appendix C ¶ 42.
[255] *Bell Atlantic New York Order* at ¶ 108; *Verizon New Jersey Order* at Appendix C ¶ 42.
[256] *Bell Atlantic New York Order* at ¶ 109-10; *Verizon New Jersey Order* at Appendix C ¶ 42.
[257] *Bell Atlantic New York Order* at ¶ 110; *Verizon New Jersey Order* at Appendix C ¶ 42.
[258] *Bell Atlantic New York Order* at ¶¶ 101, 112; *Verizon New Jersey Order* at Appendix C ¶ 42.
[259] Mr. Haven did not appear during the hearing and Mike Toothman, director, Wholesale Markets for Verizon was added as a sponsor of the OSS Declaration. Toothman, Tr. at 444-45.

Services, Corp.; and Sean J. Sullivan, director in the Wholesale Operations Support organization of Verizon Services Corp. ("OSS Declaration").[260]

In its OSS Declaration, Verizon Virginia described the access it provides to its OSS for pre-ordering, ordering, provisioning, maintenance and repair, billing, and CLEC support and training.[261] Verizon Virginia reported that during the month of January 2002, more than 75 competing carriers submitted at least one pre-order or order transaction in Virginia and that for that period, its OSS processed over 165,000 pre-order transactions and over 62,000 orders.[262]

Verizon Virginia submitted that its OSS was the subject of a comprehensive third-party test by KPMG.[263] As described by Verizon Virginia, KPMG's test in Virginia was modeled after substantially similar tests in New York, Massachusetts, Pennsylvania, and New Jersey.[264] The scope of KPMG's Virginia test expanded upon the models used in these states in several respects.[265] For example, the scope of the Virginia test included Line-Splitting and Line Loss Reporting.[266] KPMG's Virginia test was designed to address all stages of a CLEC's relationship with Verizon Virginia and to be representative of the entire CLEC marketplace.[267] KPMG's test included (i) transaction-driven system testing of pre-ordering, ordering, provisioning, maintenance and repair, and billing, and (ii) evaluation of policies, procedures, guidelines, training, documentation, and work center activities.[268] KPMG also conducted several "peak" and "stress" tests to analyze the capability of Verizon Virginia's OSS to handle activity loads in excess of then current volumes.[269] A summary of KPMG's test results as reported in the KPMG Draft Final Report is provided in the chart below:[270]

Domain	Number of Tests	Number of Test Points	Results
Relationship Management and Infrastructure	6	85	All test points satisfied
Pre-Ordering and Ordering	5	102	All test points satisfied
Provisioning	4	80	79 test points satisfied; 1 test point not satisfied
Maintenance and Repair	7	77	75 test points satisfied; 2 test points inconclusive

[260] Exhibit No. 3.
[261] *Id.* at 16-18.
[262] *Id.* at 25.
[263] *Id.* at 26.
[264] *Id.* at 29.
[265] *Id.* at 30.
[266] *Id.*
[267] *Id.* at ¶ 31.
[268] *Id.* at ¶ 32.
[269] *Id.* at ¶ 36.
[270] Exhibit No. 3, Attachment 301, at 18.

Billing	5	75	All test points satisfied
Performance Metrics Reporting	5	126	122 test points satisfied 3 test points not applicable 1 test point not satisfied

Pre-Ordering

Verizon Virginia maintained that its retail representatives and CLEC employees have access to the same pre-ordering information through the same OSS.[271] This information includes: (i) customer service records ("CSRs"), (ii) address validation, (iii) telephone number selection/reservation, (iv) product and service availability, (v) due date availability, (vi) loop qualification for ISDN, (vii) loop qualification for xDSL, (viii) directory listing request, (ix) telephone number reservation maintenance, (x) xDSL loop qualification – extended, (xi) loop make up, and (xii) order status/processor.[272] CLECs may obtain access to pre-ordering information through three interfaces, Electronic Data Interchange ("EDI"), Common Object Request Broker Architecture ("CORBA"), and a Web-based Graphical User Interface ("Web GUI").[273] Verizon Virginia contended that EDI and CORBA allow CLECs to connect their OSS to Verizon Virginia's OSS to integrate pre-order and ordering functions.[274] Verizon Virginia showed that these interfaces were available more than 99.5% of the time during "prime time"[275] for the three months ended January 2002.[276]

Ordering

Verizon Virginia outlined the steps in its ordering process: (i) the submission by a CLEC of either a Local Service Request ("LSR") or an Access Service Request ("ASR"), (ii) the reviewing and checking of this request, (iii) the routing to appropriate systems which process Virginia requests, and (iv) the entry of that request into the service order processing system.[277] Verizon Virginia acknowledges that an order is received and provides CLECs with a notice when the order has entered the service order processor (known as a Local Service Request Confirmation ("LSRC"),[278] or a reject notifier with an error ("ERR") message, a Provisioning Completion Notifier ("PCN"), and a Billing Completion Notifier ("BCN").[279] CLECs may submit resale and UNE LSRs via EDI or Web GUI.[280] Moreover, Virginia CLECs currently may

[271] Exhibit No. 3, at ¶ 41.
[272] *Id.* at ¶¶ 41-42.
[273] *Id.* at ¶ 44.
[274] *Id.* at ¶ 52.
[275] Verizon Virginia defined "prime time" to be 6:00 a.m. to 10:00 p.m. EST, Monday through Saturday, excluding holidays, for pre-order interfaces and 6:00 a.m. to 12:01 a.m. Monday through Saturday, excluding holidays, for the maintenance interface. *Id.* at ¶ 56.
[276] Exhibit No. 3, at ¶ 56.
[277] *Id.* at ¶ 66.
[278] An LSRC is sometimes referred to as a FOC. *Id.*
[279] Exhibit No. 3, at ¶ 66.
[280] *Id.* at ¶ 67.

use one of two industry standard versions of the Local Service Ordering Guidelines ("LSOG"), *i.e.*, 4 or 5, for each of the ordering interfaces.[281] Verizon Virginia stated that in January 2002, it processed over 62,000 LSRs in Virginia and over 850,000 LSRs across the former Bell Atlantic service area.[282]

Verizon Virginia defined "flow-through" to be LSRs submitted electronically that go through Verizon Virginia's interface and gateway systems to the service order processor without manual intervention, and continue automatically into the provisioning systems.[283] Verizon Virginia explained that there are several reasons why an LSR may not flow-though, including the product ordered may not be designed to flow-through, the LSR contains incorrect information or does not match data in the back-end OSS, or the back-end OSS may not be accessible.[284] Verizon Virginia advised that when an LSR fails to flow-through it is either queried back to the CLEC or is processed manually.[285]

Verizon Virginia presented two performance measures concerning flow-through.[286] First, OR-5-01 – "Total Flow-Through" measures the percentage of valid orders that flow-through for a month.[287] Second, OR-5-03 – "Achieved Flow-Through" calculates the percentage of LSRs that are eligible to flow-through that actually flow-through. The results for November 2001 through January 2002 are presented in the table below:[288]

Description	November 2001	December 2001	January 2002
OR-5-01 – Total Flow-Through – Resale	72.87%	78.93%	78.68%
OR-5-01 – Total Flow-Through – UNE	53.43%	51.24%	45.35%
OR-5-03 – Achieved Flow-Through – Resale	84.51%	91.89%	89.85%
OR-5-03 – Achieved Flow-Through – UNE	73.42%	69.71%	62.41%

Verizon Virginia maintained that the total flow-through rate for resale and UNE in Virginia in January 2002 is comparable to the rates in New York, Massachusetts, Pennsylvania, and Rhode Island at the time of their 271 state proceedings.[289] Moreover, Verizon Virginia argued that total flow-through is dependent on (i) the volume and mix of order scenarios and products requested, and (ii) the number of orders changed or supplemented after submission.[290] Thus, individual CLEC total flow-through rates vary.[291] For example, one reseller with more

[281] *Id.* at ¶¶ 68-69.
[282] *Id.* at ¶ 73.
[283] *Id.* at ¶¶ 74-75.
[284] *Id.* at ¶ 76.
[285] *Id.*
[286] *Id.* at ¶ 78.
[287] *Id.*
[288] *Id.* at ¶¶ 78-79; Attachment 401.
[289] *Id.* at ¶ 80.
[290] *Id.* at ¶¶ 81-82.
[291] *Id.* at ¶ 83.

than 100 LSRs in January 2002, experienced a total flow-through rate of 9.45%, while another reseller with more than 100 LSRs in January 2002, experienced a total flow-through rate of 91.26%[292] Similarly, the range of flow-through rates for CLECs purchasing UNEs ranged from 22.41% to 53.58% for January 2002.[293]

As to the achieved flow-through rate, Verizon Virginia avowed that this metric is affected by the same factors that affect total flow-through, and may be affected by LSRs that pass the initial edits, but fail to derive or validate information against the back-end OSS, causing manual processing.[294] Verizon Virginia stated that to increase flow-through, it analyzes results to determine if CLEC education or systems enhancements are appropriate.[295]

Verizon Virginia explained that orders requiring manual processing are directed to a National Marketing Center ("NMC").[296] Virginia orders for Ported Numbers, Unbundled Loops, and Unbundled Loops associated with Ported Numbers are handled by the Falls Church NMC.[297] Virginia orders for DSL and Line Sharing are handled by the Chesapeake, Virginia NMC.[298] Virginia orders for resale, UNE-P, and UNEs ordered by an ASR are handled by the Silver Spring, Maryland NMC.[299]

Verizon Virginia asserted that it returns confirmations and reject notices to CLECs in Virginia on a timely basis, consistently exceeding benchmark performance levels more than 95% of the time during the three months ended January 2002.[300] Verizon Virginia contended that performance results for the three months ended January 2002, show that it also processed orders accurately.[301]

Verizon Virginia indicated that its OSS for CLECs regarding jeopardy notifiers and determining the status of orders parallels the process followed by retail representatives and is the same process approved by the FCC in New York, Massachusetts, Connecticut, Pennsylvania, and Rhode Island.[302] Indeed, Verizon Virginia pointed out that the FCC approved New York, when electronic jeopardy notices were not provided to CLECs as they are, now, in Virginia.[303] In addition, Verizon Virginia affirmed that it provides CLECs with PCNs and BCNs, which notify the CLEC that it has completed all of the service orders associated with an LSR.[304]

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[292] *Id.*
[293] *Id.*
[294] *Id.* at ¶ 84.
[295] *Id.* at ¶ 85.
[296] *Id.* at ¶ 87.
[297] *Id.* at ¶ 88.
[298] *Id.*
[299] *Id.*
[300] *Id.* at ¶¶ 89-91.
[301] *Id.* at ¶¶ 92-94.
[302] *Id.* at ¶¶ 97-100.
[303] *Id.* at ¶ 103.
[304] *Id.* at ¶ 106.

Verizon Virginia maintained that performance measures for the four months ended February 2002, showed that it meets the requirements for timely PCNs and BCNs, even though in several instances it measured longer intervals than required by the Virginia Guidelines.[305]

Provisioning

Verizon Virginia confirmed that the provisioning systems and processes used for most CLEC orders in Virginia are the same as those used for provisioning its retail orders.[306] For CLEC orders with no retail analogue, such as orders that include Hot Cuts, specific provisioning processes have been developed, but are supported by the same OSS that support other order types.[307]

Maintenance and Repair

Verizon Virginia stated that it provides CLECs two electronic interfaces through which they can access its maintenance and repair OSS – the Web GUI and Electronic Bonding Interface ("EBI").[308] During the three months ended January 2002, more than 20 CLECs used the Web GUI and 2 CLECs used EBI for trouble administration in Virginia.[309] Verizon Virginia described that the Web GUI provides CLECs access to the Repair Trouble Administration System ("RETAS"), which permits a CLEC to: (i) test certain services; (ii) create trouble tickets; (iii) obtain trouble status; (iv) modify a trouble ticket; (v) request cancellation of a trouble ticket; (vi) request trouble report history; and (vii) trouble ticket service recovery for POTS.[310]

Verizon Virginia asserted that all of the primary internal systems it uses to support maintenance and repair functionality for CLECs in Virginia are used in common for retail and CLEC customers.[311] Verizon Virginia declared that these are the same OSS that the FCC reviewed and approved in Pennsylvania and, with one exception, are the same as those approved by the FCC in New York, Massachusetts, Connecticut, and Rhode Island.[312]

Verizon Virginia stated that for the three months ended January 2002, Virginia CLECs averaged 1,936 RETAS maintenance transactions per month.[313] As to performance of its maintenance and repair OSS, Verizon Virginia disclosed that for the three months ended January 2002, response times for the Web GUI and EBI consistently exceeded the established performance standard.[314]

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[305] *Id.* at ¶¶ 107-13.
[306] *Id.* at ¶ 116.
[307] *Id.*
[308] *Id.* at ¶ 118.
[309] *Id.*
[310] *Id.* at ¶ 119.
[311] *Id.* at ¶ 121.
[312] *Id.*
[313] *Id.* at ¶ 126.
[314] *Id.* at ¶ 127.

Billing

Verizon Virginia affirmed that the billing systems and procedures it uses for CLECs are the same billing systems and procedures it uses for retail customers and for interexchange carriers.[315] Verizon Virginia described these systems primarily to be expressTRAK, used for retail products, resale, UNE-P, UNE-ports, and UNE-loops, and Carrier Access Billing System ("CABS"), used for access service, IOF, shared transport, and collocation.[316] In addition, Verizon Virginia explained that it provides CLECs with two types of billing information.[317] First, Verizon Virginia provides CLECs with Daily Usage Files ("DUFs"), which contain information necessary for the CLEC to bill their own end users.[318] Second, Verizon Virginia renders a wholesale bill to the CLEC for products and services it sold to the CLEC.[319]

Verizon Virginia submitted that its carrier bills are available to CLECs on paper, CD-ROM, and in an electronic format consistent with Telcordia's CABS Billing Output Specification Bill Data Tape ("BOS BDT").[320] However, Verizon Virginia indicated that the paper bill historically has been the official bill or "bill of record."[321]

Verizon Virginia represented that in its Virginia test, KPMG tested and reviewed Verizon Virginia's billing procedures, including the accuracy and timeliness of the DUF and carrier bills in a paper format.[322] As discussed above, Verizon Virginia's billing OSS satisfied all 75 KPMG test points.[323]

Furthermore, Verizon Virginia filed the Declaration of PricewaterhouseCoopers LLP ("PwC"), which was sponsored by William M. Cobourn, Jr., a partner with PwC; Joseph C. Atkins, a principal with PwC; and Kate Bluvol, a partner with PwC.[324] In its declaration, PwC explained that it was asked to give an opinion on Verizon Virginia's management assertions related to the BOS BDT electronic billing medium.[325] The examination covered three different time periods: December 16, 2001 through January 15, 2002 ("first test period"); February 3, 2002 through February 16, 2002 ("second test period"); and April 25, 2002, through May 7, 2002 ("third test period").[326]

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[315] *Id.* at ¶ 130.
[316] *Id.*
[317] *Id.* at ¶ 131.
[318] *Id.*
[319] *Id.*
[320] *Id.* at ¶ 135.
[321] *Id.*
[322] *Id.* at ¶¶ 136-37.
[323] *Id.* at ¶ 138.
[324] Exhibit No. 7, at ¶¶ 1-6; PwC, Tr. at 424-25.
[325] *Id.* at ¶ 8.
[326] *Id.*

PwC examined six assertions of the management of Verizon Virginia in the first test period.[327] For the second and third test periods, PwC examined only the first four management assertions.[328] PwC outlined the six Verizon Virginia management assertions as follows:

1. The comparability of the BOS BDT with the paper bill with regard to the level of detail and summarization points.

2. The comparability of the BOS BDT to the paper bill with regard to billing values for each level of detail and summarization points.

3. The ability of the BOS BDT to be recalculated by a third party.

4. The internal consistency of the BOS BDT.

5. The level of adjustments made to the BOS BDT as a percent of current charges for the period.

6. Verizon Virginia's BOS BDT bills distribution and timeliness.[329]

PwC conducted the test over three different test periods because Verizon Virginia's management assertions 1 through 4 contained a number of exceptions for the first and second test periods.[330] These were fixed by system enhancements after the test periods, thus making a subsequent test period necessary.[331] PwC examined a selection of actual BOS BDTs and paper bills for Virginia.[332] PwC also examined supporting documentation on Verizon Virginia's internal controls.[333] Based on PwC's examination and the results of their procedures, PwC found that Verizon Virginia's assertions, including the noted exceptions, are fairly stated, in all material respects.[334]

For the first test period, PwC examined 25 BOS BDTs as a basis for Assertions 1 through 4.[335] PwC explained that this sample, taken out of a total population of 197 BOS BDTs produced for the test period, included billing for UNE Loop; UNE Platform; Resale; and Transport.[336] For Assertions 5 and 6, 20 BOS BDTs, which are subject to the Quality Review and Adjustment Process, from the original 25 bills were used.[337] PwC indicated that its

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[327] *Id.*
[328] *Id.*
[329] *Id.*
[330] *Id.*
[331] *Id.*
[332] *Id.* at ¶ 9.
[333] *Id.*
[334] *Id.* at ¶ 10.
[335] *Id.* at ¶ 17.
[336] *Id.* at ¶ 24.
[337] *Id.* at ¶¶ 18-19.

examination also included understanding, documenting, and testing Verizon Virginia's methods and procedures and internal control structure surrounding the creation and validation of the electronic BOS BDT files.[338]

For the second test period, PwC examined revised Assertions 1 through 4 and removed certain exceptions present in the first test period.[339] Verizon Virginia's assertions were revised to reflect changes and enhancements in its systems, which eliminated the exceptions.[340] PwC extended the selection of certain transaction data in order to test management's assertions that certain exceptions were indeed corrected with the system enhancements.[341] Otherwise, the same testing procedures were used.[342] For example, PwC selected 20 BOS BDTs to use to examine Assertions 1 through 4 for the second test period.[343]

For the third test period, Verizon Virginia's management asked PwC to examine Assertions 1 through 4 again, because it believed that system enhancements completed in April had corrected several exceptions.[344] As in the second test period, PwC extended the selection of certain transactions in order to test management's revised assertions.[345] PwC selected 18 BOS BDTs for examination in the third test period.[346] As in the first and second test periods, in the third test period PwC included an examination of the internal controls in place surrounding the creation and validation of the electronic BOS BDT files.[347]

In its Supplemental OSS Declaration of Kathleen McLean and Jonathan Smith, Verizon Virginia advised that as of June 1, 2002, CLECs may designate the electronic BOS BDT bill as their "bill of record."[348] In its Supplemental OSS Declaration, Verizon Virginia provided additional evidence that its BOS BDT bills are provided in a timely and accurate manner.[349] Finally, Verizon Virginia responded to specific claims made by CLECs in testimony.[350]

Verizon Virginia affirmed that BOS BDT bills have been available to CLECs since November 2001 for UNE Loop customers and December 2001 for Resale and UNE Platform customers.[351] On December 1, 2001, Verizon Virginia began a BOS BDT Quality Review and Adjustment Process to ensure that the electronic bills balanced internally and that they matched

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[338] *Id.* at ¶¶ 22-23.
[339] *Id.* at ¶ 49.
[340] *Id.*
[341] *Id.*
[342] *Id.* at ¶¶ 50-56.
[343] *Id.* at ¶ 54.
[344] *Id.* at ¶ 74.
[345] *Id.*
[346] *Id.* at ¶ 79.
[347] *Id.* at ¶¶ 77-78.
[348] Exhibit No. 6, at ¶ 5, Attachment 315; OSS Billing Panel, Tr. at 609.
[349] *Id.* at ¶ 3.
[350] *Id.* at ¶ 4.
[351] *Id.* at ¶ 5.

the paper bills prior to release to a CLEC.[352] Verizon Virginia explained that as part of this review, adjustments in the form of balancing records are inserted into the electronic bills in order to make it balance internally or match the paper bill.[353] Verizon Virginia explained that these adjustments are placed in the Other Charges and Credits section of the BOS BDT and are identified by phrase codes, which were published to the CLECs on December 1, 2001, through change management.[354] Verizon Virginia noted that the amount of balancing records is small in Virginia and that more than 99% of the BOS BDT bills are transmitted to CLECs within 10 business days.[355]

Verizon Virginia stated that in the KPMG test, Verizon Virginia's paper bill passed all 75 test points.[356] Verizon Virginia asserted that PwC's attestation of the BOS BDT builds on the KPMG test.[357] Verizon Virginia confirmed that PwC's test used actual CLEC bills and that PwC found that all of Verizon Virginia's assertions were fairly stated in all material respects.[358]

Verizon Virginia asserted that two of the AT&T Panel's billing complaints are incorrect or moot.[359] First, Verizon Virginia contended AT&T's claim that the electronic bill cannot be designated as the bill of record is moot as of June 1, 2002.[360] Second, Verizon Virginia maintained that AT&T's claim that the BOS BDT had not been tested is incorrect and ignores that Verizon Virginia has been successfully providing the BOS BDT bills to CLECs for months, and that PwC examined actual CLEC bills in its attestation examination.[361] Verizon Virginia argued that KPMG's report confirmed the quality of the paper bill and PwC's report confirms the comparability of the paper to the BOS BDT; therefore the BOS BDT is also confirmed.[362] Furthermore, Verizon Virginia pointed out that the FCC has found that the combination of KPMG/PwC confirmations provided relevant and valuable evidence.[363]

Verizon Virginia also responded to Cox's complaint concerning its receipt of 75 separate bills for wholesale services.[364] According to Verizon, Cox seeks one consolidated electronic bill that is sortable and available at no extra cost.[365] In response, Verizon Virginia explained that the nature of a wholesale bill is complex, that combining everything on one bill is not advisable, and there has been no similar request by any other CLEC in any other state in which Verizon does

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[352] *Id.* at ¶ 6.
[353] *Id.* at ¶ 7.
[354] *Id.*
[355] *Id.* at ¶¶ 8-9.
[356] *Id.* at ¶ 11.
[357] *Id.* at ¶ 12.
[358] *Id.* at ¶ 13.
[359] *Id.* at ¶ 23.
[360] *Id.*
[361] *Id.*
[362] *Id.*
[363] *Id.*; *Verizon Pennsylvania Order* at ¶¶ 33, 38.
[364] Exhibit No. 6, at ¶¶ 24-25.
[365] *Id.* at ¶ 24.

business.[366] Verizon Virginia maintained that it bills Cox in the same manner as it bills other CLECs and it is consistent with its wholesale billing practice.[367]

CLEC System Support

In its OSS Declaration, Verizon Virginia indicated that it offers Virginia CLECs the same array of support services as it offers CLECs in New York and Massachusetts.[368] Verizon Virginia verified that its CLEC System Support was addressed in the Relationship Management and Infrastructure portion of the KPMG test and includes OSS change management, carrier to carrier testing, and training and assistance for CLECs.[369]

Verizon Virginia described the OSS change management process as the same process used across the former Bell Atlantic footprint, and is designed to accommodate changes to its OSS originating from: (i) CLECs, (ii) Verizon, (iii) emergency changes, (iv) standards bodies, and (v) regulatory authorities.[370] The Verizon Wholesale Customer Support organization administers the OSS change management process and works with CLECs to define requirements, prioritize system changes, publish documentation of system changes, provide notice to CLECs, and sponsor workshops on important industry topics.[371] Verizon Virginia stated that software releases likely to require changes to the CLECs' side of the interface are targeted for February, June, and October.[372] Verizon Virginia indicated that it provides CLECs with draft rules and technical specifications prior to release, and has established a 30-day CLEC test period prior to release in which CLECs may test the new software and their own systems using the CLEC Test Environment ("CTE").[373] The CTE is a physically separate test environment that matches the actual production OSS and interfaces for pre-ordering and ordering, up to and including the service order processor.[374] Verizon Virginia confirmed that KPMG extensively tested CTE in its Virginia test and found that it satisfied all test criteria.[375]

Verizon Virginia affirmed that it provides Virginia CLECs with a daily Line Loss Report, which identifies end user lines that have migrated from one local service provider to another.[376]

Verizon Virginia asserted that it provides extensive information, training and assistance to CLECs in Virginia and throughout the former Bell Atlantic service area.[377] Verizon Virginia

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[366] *Id.*
[367] *Id.* at ¶ 25.
[368] Exhibit No. 3, at ¶ 142.
[369] *Id.* at ¶ 143.
[370] *Id.* at ¶ 144.
[371] *Id.*
[372] *Id.* at ¶ 145.
[373] *Id.* at ¶¶ 146-47.
[374] *Id.* at ¶ 153.
[375] *Id.* at ¶ 159.
[376] *Id.* at ¶ 160.
[377] *Id.* at ¶ 162.

submitted that most of this documentation is available on its wholesale website, including a three-volume handbook series for resellers, a three-volume handbook series for UNE purchasers, and various other technical documents.[378] Verizon Virginia provided that it also offered CLECs training workshops and has developed web-based training courses.[379] Finally, Verizon Virginia stated that it provides CLECs in Virginia with the same help desk, or Wholesale Customer Care Center ("WCCC") that it provides to CLECs throughout the former Bell Atlantic service area.[380] Verizon Virginia described the WCCC as a single point of contact for all CLEC questions concerning status notifiers, reports of systems issues, and timely notification to the CLEC of system events.[381]

OSS Performance Measures

In addition, Verizon Virginia filed the Declaration of Julie A. Canny, executive director-regulatory support for Wholesale Performance Assurance for Verizon Services Group, and Marilyn C. DeVito, director for Wholesale Performance Assurance for Verizon Services Group ("Measurements Declaration").[382] Verizon Virginia stated that the purpose of its Measurements Declaration was to describe the Virginia Carrier to Carrier Guidelines Performance Standards and Reports ("Guidelines") adopted by the Commission on August 11, 2000, and show that the reported performance results present a reliable and accurate picture of the quality of wholesale service provided by Verizon Virginia.[383] Furthermore, Verizon Virginia's Measurements Declaration addressed changes to the Guidelines adopted by the Commission on January 4, 2002, and implemented with the February 2002 data month ("New Guidelines").[384]

Verizon Virginia stated the adoption and evolution of the Guidelines began with an initial draft by KPMG, based upon similar guidelines used in New York, Pennsylvania, and New Jersey.[385] In adopting the Guidelines, modifications were made to this initial draft based on comments by Verizon Virginia, CLECs, and the Attorney General.[386] The New Guidelines are a product of industry collaboratives, extensive briefing of issues, and Commission review.[387] Verizon Virginia stressed that both the Guidelines and New Guidelines are comparable to guidelines adopted in New York, Pennsylvania, Massachusetts, Connecticut, Rhode Island, New Jersey, and Vermont.[388]

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[378] *Id.* at ¶¶ 162-64.
[379] *Id.* at ¶¶ 166-67.
[380] *Id.* at ¶ 168.
[381] *Id.*
[382] Exhibit No. 2.
[383] *Id.* at ¶¶ 5-6.
[384] *Id.* at ¶ 7.
[385] *Id.* at ¶ 10.
[386] *Id.*
[387] *Id.* at ¶ 11.
[388] *Id.* at ¶ 12.

Verizon Virginia explained that the Guidelines have three main components: (i) performance measurements, or metrics, which include the business rules, formulae, and process used to measure Verizon Virginia's wholesale performance; (ii) performance standards, including parity with analogous retail performance or an objective benchmark; and (iii) computational methodologies.[389]

During the third-party test, KPMG evaluated the processes and systems used by Verizon Virginia to implement the Guidelines.[390] Verizon Virginia reported that KPMG's test covered five areas.[391] First, KPMG found that Verizon Virginia has implemented satisfactory practices for documentation and distribution of metrics standards and definitions, and distribution of metrics reports.[392] Second, KPMG found that Verizon Virginia has implemented satisfactory policies and practices for collecting and storing the unprocessed or "raw" data used to calculate performance results.[393] Third, KPMG tested the adequacy of the process used to calculate and report performance metrics by replicating Verizon Virginia results.[394] In regard to replication, Verizon Virginia acknowledged that KPMG was unable to replicate NP-5-01 – "Percent of Network Outage Notices Sent Within 30 Minutes." for December 2001, due to an error in the calculation formula, which was corrected for the January 2002 data month.[395] Fourth, KPMG concluded that Verizon Virginia has implemented appropriate procedures for replicating and converting the raw performance data to produce reportable results.[396] Fifth, KPMG found that Verizon Virginia has consistent processes for developing, evaluating, and implementing change controls, and an adequate notification process of metric changes and errors.[397]

Finally, Verizon Virginia provides a description of each of the 206 submetrics, which on a disaggregated basis, total 2,087.[398]

Cavalier

The Cavalier Panel argued that Verizon Virginia fails Checklist Item 2 because it does not provide nondiscriminatory access to UNEs in accordance with law, because of "broken and error prone OSS systems foisted upon competitors."[399] Cavalier offered several examples in support this assertion.

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[389] *Id.* at ¶¶ 13-20.
[390] *Id.* at ¶ 21.
[391] *Id.* at ¶ 22-26.
[392] *Id.* at ¶ 22.
[393] *Id.* at ¶ 23.
[394] *Id.* at ¶ 24.
[395] *Id.*
[396] *Id.* at ¶ 25.
[397] *Id.* at ¶ 26.
[398] *Id.* at ¶¶ 27-125.
[399] Exhibit No. 72, at 4.

First, Cavalier asserted that the KPMG test of Verizon Virginia's OSS was not designed to correct problems in the OSS.[400] For that reason, after trying to participate in the summer of 2001, Cavalier withdrew from the test.[401]

Second, Cavalier maintained that Verizon Virginia uses its own Loop Facilities Assignment and Control ("LFACs") system to evaluate the facilities available to provide service to a particular customer, but Verizon Virginia has refused to provide Cavalier with effective access to LFACs.[402]

Third, Cavalier presented a summary list of OSS problems it has experienced including: (i) multiple and incomplete FOCs, (ii) circuits not found, (iii) missing ALI codes, (iv) indiscriminate jeopardy notices, and (v) missing BTN codes.[403] Each of these problems is discussed in turn.

Cavalier explained that as many as fifteen or more FOCs are sent back for the same order, and there is no summary location on the document where all updated information resides.[404] Cavalier declared that the time spent on the multiple and incomplete FOCs is "counter-productive.[405]

Cavalier contended that the "Circuits Not Found" issue is caused by Verizon Virginia's changing or omitting the "initial circuit information."[406] Cavalier explained that when it subsequently attempts to process an order for these customers, the order is queried (rejected) by Verizon Virginia, which then causes Cavalier to spend more resources to resolve the issue.[407]

Cavalier complained that missing ALI codes, which must be supplied by Verizon Virginia, creates problems in managing directory listings.[408]

Cavalier asserted that installation of an order is stopped cold by last-minute jeopardy notices from Verizon Virginia, many times appearing among "several other FOCs that show the order can be provisioned."[409] Cavalier affirmed that its internal systems and its communications with its customers are affected dramatically by such jeopardy notices.[410]

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[400] *Id.* at 17.
[401] *Id.*
[402] *Id.* at 40.
[403] *Id.* at 44.
[404] *Id.*
[405] *Id.* at 45.
[406] *Id.*
[407] *Id.*
[408] *Id.* at 45-47.
[409] *Id.* at 47.
[410] *Id.*

Cavalier claimed that Verizon Virginia's conversion to the expressTRAK failed to convert accurately BTN data Cavalier entered earlier in the legacy system.[411] Cavalier complained that through no fault of its own, it has received rejections specifying "request RSID/AECN tel # does not equal SID," indicating that "Verizon [Virginia] thinks that another CLEC owns the BTN number."[412] Cavalier stated that such erroneous rejections cause it to spend additional time, money and resources fixing a problem created by Verizon Virginia.[413]

Cavalier represented that Verizon Virginia created hundreds of "double billing" situations over the past two years.[414] Though the Verizon Virginia "Double Billing Team" has improved the situation, Cavalier warned that Verizon Virginia has failed to resolve the problem.[415]

Cavalier submitted that the "Circuits Not Found" issue, the ALI code issue, and the multiple confirmation issues discussed above are not part of the Verizon Virginia's performance metrics.[416] Thus, Cavalier declared that the Guidelines do not protect it from abuses from Verizon Virginia. Cavalier provided some data comparison examples to illustrate its claims that certain metrics fail to provide correct measurements.[417] Specifically, Cavalier disputed PR-5-01 – "Facility Missed Orders;" PR-6-01 – "% installations troubles reported within 30 days;" PR-9-01 – "% On Time Performance – Hot Cuts;" and PR-6-02 – "UNE POTS – Loop Hot Cut - % Installation Troubles Reported within 7 days."[418] Cavalier characterized Verizon Virginia's performance data as woefully incomplete.[419]

In summary, Cavalier argued that Verizon Virginia's OSS problems are "a major barrier to competition and competitive entry."[420] Cavalier maintained that its efforts to resolve these problems have been of no avail, including its efforts to use, at Verizon Virginia's request, the change control process, and to participate in the Competitive Users Forum.[421] Cavalier testified that based on more than two years of experience, "[it] cannot help but think what is really going on is a concerted effort to sidestep real problems confronting [Verizon Virginia's] relationship with CLECs."[422] Cavalier affirmed that this has caused Cavalier to lose "faith in Verizon [Virginia]'s real commitment to fix real problems."[423]

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[411] *Id*. at 48.
[412] *Id.*
[413] *Id.* at 48-49.
[414] *Id.* at 41.
[415] *Id.* at 42.
[416] *Id.* at 53.
[417] *Id.* at 54.
[418] *Id.* at 53-55.
[419] *Id.* at 54.
[420] *Id.* at 49.
[421] *Id.* at 50-51.
[422] *Id.* at 52.
[423] *Id.* at 53.

Cox

Cox filed the testimony of Catherine Sheeley, technical support supervisor for LNP in the systems operations center at Cox.[424] Ms. Sheeley highlighted four areas in which Cox has difficulties with Verizon Virginia's OSS, including: (i) Verizon Virginia does not proactively test and identify software problems prior to their release, specifically expressTRAK changes; (ii) since the first quarter of 2002, and steadily increasing thereafter, Cox has had a problem with pre-order queries returned with "CSR Not Found;" (iii) the information on a CSR provided by Verizon Virginia may contain a Local Service Provider Freeze or DSL line sharing indicator, which will delay a customer's port order; and (iv) Verizon Virginia has used outdated information as the basis for rejecting Cox LNP orders.[425]

For the first issue, Ms. Sheeley explained that when a commercial account has several locations, Cox must identify all of the location groups to submit the order.[426] However, according to Ms. Sheeley, expressTRAK CSRs do not provide the breakdown of information by location groups, which causes Cox to contact Verizon Virginia's NMC to request the breakdown.[427] Ms. Sheeley observed that this added step lengthens the time of order submission a minimum of three days and may cause a customer's due date to be missed.[428]

Regarding the CSR Not Found problem, Ms. Sheeley reported that Verizon Virginia provided four reasons that a CSR would not be found: (i) the customer had already migrated to a Verizon Virginia reseller; (ii) the account was being converted to expressTRAK; (iii) there are pending orders against the account; and (iv) the account had already been disconnected.[429] Ms. Sheeley stated that Cox opened a trouble ticket on this issue on March 22, 2002, and was told on March 29, 2002, that a software fix scheduled for April 20, 2002, would remedy the CSR Not Found problem.[430] Ms. Sheeley provided an example, via e-mails, of a specific CSR Not Found situation that began on November 6, 2001, and continues today.[431] Ms. Sheeley contended that the problem with a CSR Not Found creates additional administrative expense for Cox and adversely impacts customers by delaying their scheduled porting to Cox by two to four weeks.[432]

Ms. Sheeley expressed Cox's concerns regarding Verizon Virginia's wholesale support centers, including the NMC, the WCCC, the CIRT Help Desk, and the Verizon Virginia Support Centers.[433] Ms. Sheeley asserted that Verizon Virginia's NMC staff is in need of extensive

[424] Exhibit No. 88.
[425] *Id.* at 5-6.
[426] *Id.* at 6.
[427] *Id.*
[428] *Id.* at 7.
[429] *Id.*
[430] *Id.* at 8.
[431] *Id.* at 8-9.
[432] *Id.* at 9-10.
[433] *Id.* at 10-11.

training and is unable to assist CLECs with critical issues.[434] Ms. Sheeley observed that the NMC staff is only able to take messages and refer issues.[435] Regarding the WCCC, Ms. Sheeley stated that Cox has had problems opening trouble tickets and has experienced slow responses.[436] Ms. Sheeley explained that the CIRT Help Desk problems arise out of having two systems (former GTE WISE group and former Bell Atlantic WEB GUI group) that have not been integrated electronically.[437] Finally, Ms. Sheeley represented that the Verizon Virginia Support Centers have been slow regarding callbacks on trouble tickets filed with its work centers.[438]

Concerning Local Service Provider Freezes, Ms. Sheeley claimed that Cox has encountered instances where a customer wants to port to Cox, but Cox is unable to process the order since the customer's Verizon Virginia account reflects a Local Service Provider Freeze.[439] Ms. Sheeley found that some customers have questioned how the freeze could have been issued on their account since they were unaware of the freeze.[440] According to Ms. Sheeley such a freeze requires the customer or Cox and the customer (three-way call) to contact Verizon Virginia to remove the freeze.[441] Ms. Sheeley reported that there have been various roadblocks associated with such situations, including a Verizon Virginia representative stating that there was no freeze while the CSR that Cox retrieved indicates that a freeze is in fact in place.[442] Furthermore, Ms. Sheeley complained that KPMG failed to test Local Service Provider Freezes, which Cox requested on two weekly phone calls with KPMG, towards the end of their test.[443]

Ms. Sheeley summarized Cox's recommendations to the Commission as follows: improve the process of announcing software changes; improve Verizon Virginia's wholesale support centers; and improve the processes for removing Local Service Provider Freezes and DSL line sharing indicators from lines that are to be ported to Cox.[444]

Furthermore Cox filed the testimony of Michelle Gee, carrier billing analyst for Cox, which raised several issues related to Verizon Virginia's wholesale bills.[445] Ms. Gee explained that Cox receives approximately 75 separate wholesale bills for 8 different Billing Account Numbers ("BANs") at various times throughout the month from Verizon Virginia.[446] Ms. Gee asserted that the bills are received only in hard copy and total approximately 12,200 pages each

[434] *Id.* at 11.
[435] *Id.*
[436] *Id.*
[437] *Id.*
[438] *Id.* at 12.
[439] *Id.*
[440] *Id.*
[441] *Id.*
[442] *Id.* at 12-13.
[443] *Id.* at 14.
[444] *Id.* at 4-5.
[445] Exhibit No. 79.
[446] *Id.* at 6.

month.[447] Ms. Gee contended that reviewing the multitude of paper is problematic, and complicated by bills for like services arriving at various times, making audits/reconciliation difficult. In addition, directory bills do not list customer information.[448] Ms. Gee testified that due to these problems Cox now employs a full-time staff member to audit bills.[449] Ms. Gee submitted that these problems could be corrected if CLECs received one consolidated electronic bill in a sortable format.[450]

Ms. Gee testified that Verizon Virginia's wholesale bills are inaccurate.[451] Ms. Gee related that when Verizon Virginia changed from its legacy billing system to expressTRAK, Cox was billed federal taxes on its wholesale accounts in error and has been charged taxes on several of its Switched Access accounts in error.[452] Ms. Gee stated that some of the tax problems have been resolved but others are still ongoing.[453] Ms. Gee offered other examples of billing inaccuracies, including the calculation of mileage charges between central offices, charging mileage for a cross connect circuit, and charging inappropriate fees.[454] Ms. Gee asserted that there are considerable delays in the billing claims process (interrogatory response from Verizon Virginia admitted to approximately 120 days) and in getting the mistakes corrected in the system so they do not reoccur.[455]

In regards to retail bills, Ms. Gee represented that Cox has experienced repeated problems with customers continuing to receive bills from Verizon Virginia after porting numbers to Cox, some taking over a year to resolve.[456] In response, Ms. Gee acknowledged that Verizon Virginia has created the "Double Billing Team" to address the issue and resolve such issues.[457] Nonetheless, Ms. Gee stated that Cox remains concerned that Verizon Virginia has no measure in place to prevent double billing from occurring in the first place.[458]

Ms. Gee also claimed that directory listing bills contain incorrect charges. Ms. Gee explained that Verizon Virginia does not "provide a reliable database to research past ALI code assignments."[459] Ms. Gee affirmed that prior to March of this year, an ALI code spreadsheet provided by Verizon Virginia to Cox is for legacy accounts and not expressTRAK.[460] Other complaints regarding the spreadsheet raised by Ms. Gee included missing information and that it

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[447] *Id.* at 7.
[448] *Id.*
[449] *Id.*
[450] *Id.* at 6-7.
[451] *Id.* at 7.
[452] *Id.*
[453] *Id.*
[454] *Id.* at 7-8.
[455] *Id*. at 9.
[456] *Id.* at 11.
[457] *Id.* at 12.
[458] *Id*.
[459] *Id.* at 13.
[460] *Id.*

is so large that it is sent in segments and, therefore, is difficult to sort, filter or audit.[461] While, Verizon Virginia has indicated that Cox can download ALI code information from the WebGUI that includes both Legacy and expressTRAK ALI code information, Ms. Gee pointed out that the format of such information is different and cannot be imported into an Excel file to be sorted or filtered.[462]

Overall, Ms. Gee recommended that Verizon Virginia consolidate all the bills (and all BANs) for a CLEC into one electronic, sortable bill; implement measures to resolve billing dispute resolutions to less than 30 days; audit its billing process and implement quality control measures; proactively identify and correct bills after customers have ported numbers to Cox; and be required to address and correct ALI code problems or eliminate the need for them.[463]

In addition, Cox filed the Supplemental Testimony on Electronic Billing of Ron Whited, executive director, information technology-telephony operation support systems for Cox.[464] In this testimony, Mr. Whited addressed electronic billing issues that relate to Transport, which is billed out of CABs, and responded to Verizon Virginia's assessment of Cox's earlier claims concerning the BOS BDT.[465]

As for CABs billing, Mr. Whited testified that Cox is seeking a data interchange specifically for meet-point billing records, which Cox is having difficulty arranging from Verizon in Virginia and Rhode Island.[466] Mr. Whited explained that meet-point billing occurs when both Verizon Virginia and a CLEC bill an interexchange carrier for their respective portions of switched access.[467] The records include information, collected by the tandem office LEC, that allows the end office LEC (typically Cox) to bill and return to the tandem office LEC so they can bill for their portion.[468] These billing records may also include information concerning CMDS for third party billed calls.[469] Mr. Whited represented that Cox and its affiliates have been implementing electronic billing with different ILECs around the country and have been successful in other ILEC jurisdictions, but not with Verizon.[470] Mr. Whited stated that the new proposed implementation date is the weekend of June 15th and 16th.[471] The initial request for the project was made Feb. 28, 2002, and additional information was supplied, at Verizon Virginia's request, on March 1, 2002.[472] The following week the proposal was accepted and testing was done on March 25, 2002.[473] A couple of weeks later Verizon Virginia had more questions for Cox, which Cox provided, and the documents were approved (again) on April 24,

[461] *Id.*
[462] *Id.*
[463] *Id.* at 5, 6-14.
[464] Exhibit No. 68.
[465] *Id.* at 4.
[466] *Id.*
[467] *Id.*
[468] *Id.*
[469] *Id.*
[470] *Id.* at 5.
[471] *Id.*
[472] *Id.*
[473] *Id.*

2002, which is the date Verizon says constitutes the beginning of the 60 days that it normally takes to implement a request for electronic billing.[474] Mr. Whited asserted that Cox is concerned at the length of time it has taken to get the interface up and running when it did not take nearly this long with the other ILECs.[475] Mr. Whited recommended that when a CLEC makes an application that any problems be resolved at the initial stages of review, not at the end of the process.[476] Mr. Whited further argued that Verizon Virginia's time lines for implementing a request for a billing interface should be around two to three weeks, as was Cox's experience with other ILECs.[477]

In addition, Mr. Whited took issue with Verizon Virginia's dismissal of its recommendation for a consolidated, sortable electronic bill.[478] Mr. Whited submitted that just because Verizon Virginia does not provide this service does not make the request unreasonable and that Verizon should not dismiss the request as unreasonable when other BOCs provide the service.[479]

AT&T

The AT&T Panel expressed concerns that KPMG failed to test certain functions, including electronic billing, billing claims, and the posting of billing credits.[480] AT&T maintained that timely accurate wholesale bills are critical to CLECs, but Verizon Virginia does not offer a BOS BDT version of the wholesale bill as the bill of record – but rather a monster, cumbersome paper bill.[481] Moreover, AT&T contended that KPMG only evaluated the paper bill using the KPMG Billing Accuracy metric, which contains a "lag property" – so KPMG did not test billing disputes.[482] On the other hand, AT&T noted that Verizon Virginia does provide to its retail customers (including large retail customers) electronic bills (CD ROM, EDI, Internet access & magnetic tape) that, per Verizon Virginia's website, allows the customer to manipulate the billing data and generate customized reports.[483] Thus, AT&T argued that Verizon Virginia "has discriminatorily deprived its wholesale competitors from receiving electronic bills."[484]

AT&T stated that "billing is totally unworkable so long as the bill of record remains the paper bill, and so long as the e-bill, once it becomes the bill of record, remains untested."[485]

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[474] *Id.* at 5-6.
[475] *Id.* at 6.
[476] *Id.*
[477] *Id.*
[478] *Id.* at 7.
[479] *Id.*
[480] Exhibit No. 93, at 22-26.
[481] *Id.* at 22-23.
[482] *Id.* at 23-24.
[483] *Id.* at 25.
[484] *Id.* at 26.
[485] *Id.* at 42-43.

AT&T reiterated its position that Verizon Virginia should be required to fix all problems identified in AT&T's testimony before it is granted 271 approval.[486]

WorldCom

As described above, WorldCom witness Freifeld argued that the Commission is not in a position to fulfill a consultative role in this proceeding and should not opine on Verizon Virginia's compliance with competitive Checklist Items 1, 2, 3, 4, 6, 10, 13, and 14.[487] Because the Commission determined that it could not waive its sovereign immunity and therefore could not conduct arbitrations under the Act, WorldCom asked the FCC to arbitrate.[488] Mr. Freifeld described one of the issues pending before the FCC to be Verizon Virginia's proposal to retain the contractual right to deny unilaterally access to its OSS any time Verizon Virginia determines an "OSS abuse" has occurred.[489] Until this and other Checklist Item 2 issues are resolved, Mr. Freifeld urged the Commission to refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 2 at this time.[490]

In addition, WorldCom filed the testimony of Margaret T. Pearce, a performance measurements and remedies subject matter expert for WorldCom.[491] Based on her review of Verizon Virginia's performance results for the three months ending January 2002, Ms. Pearce argued that Verizon Virginia is failing to meet performance standards for ordering, provisioning, maintenance and repair, and billing.[492]

Overall Ms. Pearce reported that for metrics with specific standards, Verizon Virginia failed to meet the standard for at least one month on 26% of them, and that for these same measurements, Verizon Virginia failed on 10% of them for all three months.[493] Thus, Ms. Pearce maintained that Verizon Virginia's sweeping generalization about good performance actually masks poor performance.[494]

Ms. Pearce dismissed Verizon Virginia's proclamation that it "met or exceeded the parity performance standard for every POTS PAP metric from November through January" as irrelevant to Verizon Virginia's § 271 application and that exceeding the standard for one metric can not be used to offset Verizon Virginia's poor performance in other areas.[495] Ms. Pearce contended that Verizon Virginia, when it makes vague statements that it has an "overall" score

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[486] *Id.* at 43.
[487] Exhibit No. 65, at ¶ 3.
[488] *Id.*
[489] *Id.* at ¶ 12.
[490] *Id.* at ¶ 13.
[491] Exhibit No. 66.
[492] *Id.* at ¶ 3.
[493] *Id*. at ¶ 6.
[494] *Id.* at ¶ 7.
[495] *Id.* at ¶ 9.

that meets the standard across "most" subcategories, attempts to mask the metrics where it failed to meet the standard.[496]

More specifically, Ms. Pearce used the special study results for metrics OR-4-5 and OR-4-10 to dispute Verizon Virginia's statement that it provides timely PCNs.[497] Verizon Virginia failed to meet the standard for OR-4-10 in November and December and for all months except February 2002 for OR-4-5.[498] Ms. Pearce noted that for the three months ended January 2002, Verizon Virginia failed to meet three metrics slated to be removed from the guidelines, OR-4-02, OR-4-06 and OR-4-07.[499]

Ms. Pearce focused considerable attention on Verizon Virginia's OR-5-03 flow-through rates.[500] OR-5-03 is the only flow-through measure that has a standard at this time.[501] OR-5-03 measures the percentage of orders that Verizon has designed to flow-through that actually do flow-through.[502] Ms. Pearce reported that the best UNE score, in the three months ended January 2002, was for November 2001 of 73.42%.[503] The January figure was 62.41%, which Ms. Pearce characterized as a disappointing downward trend.[504] Ms. Pearce discounted Verizon Virginia's explanation that CLEC errors cause some of the problems with flow-through rates, because the guidelines exclude "Orders with CLEC input errors in violation of published business rules."[505] Ms. Pearce asserted that the CLECs are suffering discrimination because Verizon Virginia enjoys essentially 100% flow-through.[506] Ms. Pearce contended that total flow-through, which fluctuates between 45% and 54% for UNE and between 72% and 79% for Resale, should be improved before Verizon Virginia is granted § 271 authority.[507]

Ms. Pearce pointed to BI-3-3 as the only billing metric in the filing with a standard for accuracy of billing.[508] Though this metric is revised in the New Guidelines, which became effective in February 2002, Ms. Pearce argued that the fact that Verizon Virginia failed the standard for this metric in December 2001 and January 2002, (with January's results particularly bad, with CLEC adjustments at 7.58% versus 1.04% for Verizon Virginia's retail side) is relevant to the 271 proceeding, because it is the data on which the filing is based on.[509]

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[496] *Id.* at ¶ 10.
[497] *Id.* at ¶ 11.
[498] *Id.*
[499] *Id.* at ¶ 13.
[500] *Id.* at ¶¶ 14-15.
[501] *Id.* at ¶ 15.
[502] *Id.*
[503] *Id.*
[504] *Id.*
[505] *Id.*; *See*, New Guidelines at 37.
[506] Exhibit 66, at ¶ 16.
[507] *Id.* at ¶ 17.
[508] *Id.* at ¶ 18.
[509] *Id.*

Ms. Pearce accused Verizon Virginia of skewing its provisioning performance by reporting only on the passing scores for Missed Appointments measurements.[510] Ms. Pearce noted that the following provisioning metrics did not meet the parity standards for all three months: PR1-01, PR-2-01, PR-3-01, and PR-6-01.[511] Further, Ms. Pearce argued that though Verizon Virginia reported good performance for not missing appointments, it is "equally important to complete orders on time. No one is going to remember that a technician was on time if the service itself is provisioned late."[512]

Ms. Pearce presented an analysis of UNE provisioning for complex services – 2 Wire Digital and 2 Wire xDSL, in which for at least one month the standard was failed for 10 out of 37 metrics, or one-fourth of the UNE provisioning metrics for Complex services.[513] For eight of these metrics, Verizon failed for at least two months.[514] Furthermore, Ms. Pearce reported that Verizon Virginia failed to meet the standard for two out of four disconnect metrics for all three months.[515] Ms. Pearce explained that such performance affects billing, as customers may be billed by both carriers if a disconnect order is not completed on time.[516]

Ms. Pearce highlighted several Resale POTS provisioning metrics that did not meet the standard for all three months, including: PR-3-01, PR-3-02, PR-6-01, PR-6-02, PR-1-01, and PR-2-01.[517] And Verizon Virginia failed the metrics' standard for one or two months for the following: PR-3-03, PR-4-02, PR-1-01, and PR-2-01.[518] (Some of these are disaggregated by Business and Residence, therefore, the same metric number may show up in both lists.)

In regards to maintenance and repair metrics, Ms. Pearce provided: (i) that Verizon Virginia did not meet the standards for most MR metrics for Complex Services and Special Services for all three months; (ii) that Verizon Virginia did not mention that it did not pass in November and January for POTS Loops on MR-4-07; and (iii) that Verizon Virginia failed at least one month each for OR-4-07 and OR-4-08 for Special Services.[519]

As to the directory assistance database, Ms. Pearce contended that though Verizon Virginia alleges that it updates the database for CLEC customers "with a high degree of accuracy," Verizon Virginia failed to mention that for December it did not meet the parity standard, as its accuracy for CLECs was 98.5% compared to 100% for its retail operation.[520]

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[510] *Id.* at ¶ 19.
[511] *Id.*
[512] *Id.*
[513] *Id.* at ¶ 20.
[514] *Id.*
[515] *Id.* at ¶ 21.
[516] *Id.*
[517] *Id.* at ¶ 22.
[518] *Id.*
[519] *Id.*
[520] *Id.* at ¶ 24.

Ms. Pearce concluded that the "great number of performance failures reported by Verizon [Virginia]contradicts [its] assertion that it provides nondiscriminatory service to CLECs."[521] Thus, Ms. Pearce argues that Verizon Virginia fails to provide wholesale services as required by the Act.[522]

Finally, WorldCom filed the testimony of Karen Furbish, principal analyst-access services for WorldCom.[523] Ms. Furbish emphasized that CLECs are and will continue to be dependent on Verizon Virginia's interstate and intrastate "last mile" Special Access services.[524] Ms. Furbish argued that Special Access services are "functionally equivalent" to certain UNEs such as UNE loops and transport.[525] Ms. Furbish stated that "intrastate Special Access is predominantly used to provide local or intraLATA private line-type service to carrier-customers and end users" and that its "use is limited because the FCC's 'mixed use' rule requires that any circuits carrying 10% or more interstate traffic must be purchased out of an incumbent LEC's interstate access tariff."[526]

While a CLEC may desire to order UNEs, Ms. Furbish listed the following regulatory and practical limitations: (i) Enhanced Extended Links ("EELs") rules that do not allow the conversion of Special Access to EELs unless it will "carry a 'significant amount of local exchange service' [voice] for that customer;" (ii) ILECs claiming no capacity to provision a loop or transport as a UNE but having facilities when the CLEC orders the more expensive Special Access; (iii) separate ordering systems and processes; and (iv) the ILECs have teams to facilitate Special Access services but for UNEs a CLEC must rely on a LSR and overcome additional obstacles (protracted negotiations, arbitrations, and lawsuits).[527] Furthermore Ms. Furbish argued that as long as CLECs must rely on Verizon Virginia to provision the last mile, Verizon Virginia may leverage its market power in an anticompetitive manner by providing a poor level of on-time performance.[528]

Ms. Furbish maintained that there has always been an incentive for BOCs to discriminate against CLECs in favor of their own retail customers, and that this incentive increases once § 271 is granted.[529] For example, Ms. Furbish reported that in New York, Verizon's Special Services performance worsened following § 271 approval.[530] Ms. Furbish pointed to Texas as an example of a state that added the measurement of interstate Special Access when used in lieu of UNEs to its local Performance Plan after reviewing evidence of declines in performance

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[521] *Id.* at ¶ 25.
[522] *Id.*
[523] Exhibit No. 67.
[524] *Id.* at ¶ 6.
[525] *Id.* at ¶ 7.
[526] *Id.* at ¶ 9.
[527] *Id.* at ¶¶ 10-13.
[528] *Id.* at ¶ 21.
[529] *Id.* at ¶ 23.
[530] *Id.*

following § 271 approval.[531] Other states reviewing the issue include Colorado, Washington, Minnesota, Tennessee, Massachusetts, Indiana, Illinois, Georgia, and Rhode Island.[532]

Ms. Furbish urged the Commission to: (i) monitor Verizon Virginia's performance in providing Special Access service; (ii) require Verizon Virginia to report its performance based on the set of 11 core metrics developed by the Joint Competitive Industry Group; (iii) select a third-party auditor to investigate Verizon Virginia's current ordering, provisioning and maintenance policies, procedures and processes used to provide Special Access services; and (iv) if it finds that Verizon Virginia does favor its own customers, request a full investigation by the FCC.[533]

Covad

For this Checklist Item, the Covad Panel addressed Verizon Virginia's billing system and its related performance, which Covad characterized as "fraught with problems."[534] Covad asserted that KPMG testing failed to test key aspects of Verizon Virginia's billing systems such as queries, backbilling, and billing disputes.[535] Additionally, Covad faulted KPMG for failing to audit or examine Verizon Virginia bills to actual CLECs and for failing to interview any CLEC regarding their individual experience with Verizon Virginia's billing system.[536]

Covad contended that Verizon Virginia does not provide "adequate descriptions and clear identification of charges on bills that would allow Covad to understand and compare the charges on the bill to the products and services it had ordered."[537] Covad stated that it persistently has asked Verizon Virginia to provide: (i) a description of each element ordered by the CLEC; (ii) Universal Service Order Code(s) ("USOC") that correlate to each particular UNE description; and (iii) Network Channel and Channel Interface ("NC/NCI") Codes, secondary codes and specification codes for the UNE description and USOCs to allow for reconciliation of the bills.[538]

Covad argued that Verizon Virginia makes verification of bills worse with its "appalling billing practices, including, but not limited to, backbilling, inaccuracies, and manual processes."[539] Covad related that they have been backbilled for charges 2 – 3 years old; a backbilling was included on a bill for one state but contained charges for multiple states; backbilled amounts are inaccurate; and Verizon Virginia manually places charges on bills and

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[531] *Id.* at ¶ 24.
[532] *Id.*
[533] *Id.* at ¶¶ 25-29.
[534] Exhibit No. 48, at ¶¶ 47-54.
[535] *Id.* at ¶ 47.
[536] *Id.*
[537] *Id.* at ¶ 48.
[538] *Id.*
[539] *Id.* at ¶ 49.

provides a spreadsheet as support to the CLEC.[540] Additionally, Covad represented that disputes are not resolved within the 30-day target period; Verizon Virginia does not update its billing system to support new products (*i.e.*, create billing codes for elements so new products can be billed on a mechanized basis); and once the billing system is updated it is not communicated to all sections of Verizon Virginia sometimes resulting in the CLEC being doubled billed, once manually, and then mechanically.[541]

Covad advised that the Commission should not require payment of "unverifiable charges until Verizon [Virginia] has provided a reliable and accurate source of information for purposes of ordering and billing review."[542] Furthermore, Covad recommended that the Commission require Verizon Virginia to mechanize the billing process within a 60-day period for all new products and elements, and limit the ability to backbill to 6 months.[543]

In addition, Covad filed the Responsive Supplemental Testimony on Electronic Billing of Valerie Evans.[544] In this testimony, Ms. Evans observed that Verizon Virginia admits that its BOS BDTs contain certain billing elements and summarization points that are different from similar points on the paper bill.[545] Ms. Evans argued that such adjustments highlight inaccuracies in Verizon Virginia's bills and demonstrate the difficulties that CLECs will have with verifying, reconciling, and comparing charges on the BOS BDTs to the services ordered.[546] Ms. Evans maintained that billing errors could be disabling to CLECs and such inaccuracies force Covad to more closely monitor its bills and pursue billing disputes, claims, and queries.[547]

NTELOS

NTELOS witness Goodman stated that bills from Verizon Virginia are routinely inaccurate, which causes NTELOS to devote employees to auditing and disputing the bills on a full-time basis.[548] Mr. Goodman represented that NTELOS has had continuing problems with "double billing" of customers with some customers being billed for more than two years.[549] Mr. Goodman acknowledged that Verizon Virginia has established a "Double Billing Team," but Mr. Goodman further contended that the problem persists.[550] Mr. Goodman affirmed that double billing is a major concern of customers and it discourages individuals from switching to a CLEC.[551] Mr. Goodman argued that NTELOS' experience shows that Verizon Virginia falls

[540] *Id.* at ¶¶ 49-50.
[541] *Id.* at ¶¶ 51-52.
[542] *Id.* at ¶ 53.
[543] *Id.*
[544] Exhibit No. 49.
[545] *Id.* at ¶ 3.
[546] *Id.*
[547] *Id.*
[548] Exhibit No. 91, at 5.
[549] *Id.* at 6.
[550] *Id.*
[551] *Id.*

short of the mandate to open its local market and has failed in providing wholesales services to CLECs.[552] Mr. Goodman concluded with, "When all is said and done, Verizon (Virginia) treats CLECs like competitors, not customers for wholesale products."[553]

Staff

Staff filed the testimony of Amy J. Gilmour, principal public utility accountant with the Commission's Division of Public Utility Accounting.[554] Ms. Gilmour described the process used by the Staff to analyze and replicate Verizon Virginia's performance results.[555] Ms. Gilmour explained that during the KPMG test, Staff developed an Oracle-based process that enables it to load detailed data files supplied by Verizon Virginia into tables and replicate the performance results reported by Verizon Virginia in its Carrier-to-Carrier Reports.[556] Ms. Gilmour affirmed that Staff's process also enables it to run monthly comparisons and other special queries and reports.[557] For example, Ms. Gilmour presented a report that showed three months of data for each metric that failed to meet the established performance standard for April 2002.[558]

Ms. Gilmour outlined the Staff's methodology for replicating Verizon Virginia's monthly performance results and addressed Staff's participation in Verizon Virginia's metrics change control process.[559] Ms. Gilmour noted that "determining if and/or when" Verizon Virginia will be required to submit revised metrics reports to correct errors is an important, but open issue.[560] Finally, Ms. Gilmour presented Verizon Virginia's performance metrics for the February 2002 and March 2002 data months, which were prepared in accordance with the New Guidelines.[561]

Verizon Virginia – Reply

In its OSS Reply Declaration, Verizon Virginia responded to CLEC criticism of KPMG's test.[562] Verizon Virginia argued that the KPMG Report speaks for itself; CLECs were invited to participate in the test and failed to raise any serious questions regarding the accuracy, thoroughness, and conclusions of KPMG's Virginia test.[563] Verizon Virginia affirmed that KPMG's Virginia test was "substantially similar" to tests in New York, Massachusetts, Pennsylvania, and New Jersey and argues that the "FCC has concluded that this prior testing

[552] *Id.* at 2.
[553] *Id.* at 7.
[554] Exhibit No. 101.
[555] *Id.* at 1.
[556] *Id.* at 2.
[557] *Id.*
[558] Exhibit No. 38.
[559] Exhibit No. 101, at 2-3.
[560] *Id.* at 3.
[561] *Id.* at Appendix A though H.
[562] Exhibit No. 10, at ¶¶ 13-14.
[563] *Id.*

constituted 'persuasive evidence of Verizon's OSS readiness.'"[564] Further, Verizon Virginia argued that the results of the Virginia test are "indisputably excellent," that "KPMG evaluated 545 test points and only one was Not Satisfied, only two were deemed Inconclusive, and three were Not Applicable.[565] Finally, Verizon Virginia contended that the KPMG test "quite properly trumps the vague, stale, and isolated performance incidents raised by some CLECs."[566]

Regarding Cavalier's complaint concerning multiple confirmations, Verizon Virginia explained that Cavalier is correct that Verizon Virginia does send multiple confirmations when necessary to conform to industry guidelines.[567] Put simply, Verizon Virginia submitted that it returns a confirmation to a CLEC for each order and supplement the CLEC sends.[568] Verizon Virginia added that, because of the chance of human error, "Verizon has provided reinforcement training on the process of confirmations to service representatives in December 2001 and again in February 2002."[569] Verizon Virginia charged that Cavalier "provided no specific examples to support" Cavalier's allegation that Verizon Virginia can "stop the clock" on metrics while issuing unnecessary queries.[570] Verizon Virginia advised that it achieves "excellent performance" in the area of returning queries and confirmations on time and "simply does not issue fictitious queries in order to avoid missing a confirmation timeliness measure."[571] Verizon Virginia argued that queries on Cavalier-supplied circuit identifiers can "quite properly be generated for a variety of reasons," and that "Cavalier has overstated the number of such queries that it receives."[572] Verizon Virginia reported that during the period of March 15 to April 15, 2002, "only approximately 1% of [total] queries were for circuit identifiers not found."[573]

Regarding Cavalier's concerns about the Jeopardy Notice process, Verizon Virginia stated that its business rules, found on the Wholesale Customer web site, contain the information necessary to enable a CLEC to distinguish between a Confirmation, a Jeopardy Notice, and a Query.[574] Verizon Virginia explained that it worked with CLECs to establish the Jeopardy Notice process and "has continued to work with the CLEC community to clarify and refine the process as needed."[575] Verizon Virginia noted that Cavalier participated in the January 2002 session of Verizon's Jeopardy Notification Workshop.[576] Verizon Virginia affirmed that

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[564] *Id.* ¶ 14.
[565] *Id.*
[566] *Id.*
[567] *Id.* at ¶ 44.
[568] *Id.*
[569] *Id.* at ¶ 45.
[570] *Id.* at ¶ 46.
[571] *Id.*
[572] *Id.* at ¶ 47.
[573] *Id.*
[574] *Id.* at ¶ 48.
[575] *Id.* at ¶ 49.
[576] *Id.* at ¶ 51.

Cavalier's complaint that Jeopardy Notices are being received after a PCN, was found to be valid, but was "occurring in a very limited set of circumstances" and has now been resolved.[577]

Verizon Virginia explained that Cavalier's assertion about expressTRAK's failure to convert BTNs was found to be caused by a "work center error" and not a system problem with expressTRAK.[578] Verizon Virginia stated that it "worked with Cavalier to implement a workaround" to correct the problems and later "implemented a process enhancement and automated the process for assigning the BTNs so that it is no longer possible to assign duplicate BTNs to different customers.[579] Verizon Virginia asserted that Cavalier is "mistaken" when it claims that Verizon Virginia advised Cavalier to use the Change Management process to resolve this BTN assignment problem.[580] Verizon Virginia pointed out that Cavalier was directed to the Change Management process when it wanted to "introduce a change to the interfaces" that would affect the other CLECs.[581]

As to billing, Verizon Virginia asserted that through its initial and supplemental OSS Declarations it has demonstrated that it provides daily usage records and wholesale bills that are accurate and allow CLECs to compete in Virginia.[582] In addition, Verizon Virginia stated that its billing performance continues to improve.[583]

Verizon Virginia represented that KPMG verified its ability to provide nondiscriminatory billing to CLECs and confirmed the quality of the paper bill.[584] Verizon Virginia confirmed that KPMG tested both the billing procedures and actual bills generated by Verizon Virginia and concluded that Verizon Virginia satisfied all 75 test points.[585] Verizon Virginia further declared that the comparability of the BOS BDT bill to the paper bill has been confirmed by the PwC review.[586]

Verizon Virginia maintained that its billing performance is confirmed by the results of certain metrics, specifically 95% of DUF records were sent within four business days (BI-1-02) and timeliness of providing carrier bills to CLECs (BI-2-01).[587] Verizon Virginia disputed WorldCom's statement that it "did not perform so well in regard to Billing Accuracy."[588] Verizon Virginia indicated that WorldCom relies on metric BI-3-03 – "Percent Billing

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[577] *Id.* at ¶ 52.
[578] *Id.* at ¶ 53.
[579] *Id.* at ¶ 54.
[580] *Id.* at ¶ 55.
[581] *Id.*
[582] *Id.* at ¶ 134.
[583] *Id.*
[584] *Id.* at ¶ 135.
[585] *Id.*
[586] *Id.*
[587] *Id.* at ¶ 136.
[588] *Id.* at ¶ 137.

Adjustments" as a basis for its statement.[589] Verizon Virginia pointed out that because of a flaw in design that mismatches periods in the numerator and denominator, this metric was removed from the New Guidelines, which became effective with the February 2002 data month.[590] Verizon Virginia affirmed that based on the KPMG and PwC reviews, it bills its customers with a "high degree of accuracy."[591]

In addition, Verizon Virginia explained that due to changes made by Verizon Virginia since January 2002, including assigning a vice-president the responsibility of handling billing claims, establishing a task force to analyze claims, and reorganizing and expanding the Wholesale Claims organization, the average resolution time has been reduced from the 2001 average of 120 days to a 2002 average of 36 days.[592] Likewise, Verizon Virginia reduced the number of open claims from 1,700 in January 2002, to the current number of 650 claims.[593]

Furthermore, Verizon Virginia warranted that "'double billing' has now been virtually eliminated"[594] and that a study conducted for April 2002 found that "Verizon [Virginia] received 46 complaints from the CLECs claiming that 'double billing' has occurred. Of those complaints, only 18 were found to be 'double billing'."[595] Verizon Virginia attested that the Double Billing Team remains in place and responds to the CLECs within ten (10) business days or three (3) business days on urgent requests.[596]

d) Discussion

The discussion of Verizon Virginia's OSS will begin by addressing Verizon Virginia's claim that the OSS it has deployed in Virginia is the same or similar to the OSS Verizon has deployed in other states. The discussion will then focus on the KPMG Virginia test, followed by a review of Verizon Virginia's reported performance metrics. The discussion will conclude with a separate consideration of billing and other OSS concerns raised by CLECs.

Multi-State OSS

On brief, Verizon Virginia asserts that it has deployed the necessary systems and personnel to provide CLECs with nondiscriminatory access to each of the necessary OSS functions, and has adequately assisted CLECs in understanding how to implement and use all of the OSS functions available to them.[597] Furthermore, Verizon Virginia states "[t]he FCC has

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[589] *Id.*
[590] *Id.* at ¶ 138.
[591] *Id.* at ¶ 137.
[592] *Id.* at ¶¶ 139-40.
[593] *Id.* at ¶ 141.
[594] *Id.* at ¶ 143.
[595] *Id.* at ¶ 145.
[596] *Id.*
[597] Verizon Virginia Brief at 53.

reviewed and approved these interfaces and gateways on eight separate occasions, finding that they satisfy the requirements of the Act."[598]

Throughout its testimony, Verizon Virginia stresses that the OSS deployed in Virginia is the same process and procedure approved by the FCC in other states.[599] However, a closer examination reveals that Verizon Virginia's OSS is something of a tapestry of system, some deployed throughout the entire old Bell Atlantic fourteen-state footprint, others deployed throughout only the old Bell Atlantic – South footprint, and still others deployed in only the old C&P Telephone area. Generally, the interfaces and gateway systems are the same through the entire old Bell Atlantic fourteen-state footprint. ExpressTRAK and other back-end systems are unique to the old C&P Telephone area. For those systems that have been examined, tested, and approved in other states, I agree with Verizon Virginia that such FCC approval is due significant weight in determining whether those same systems provide Virginia CLECs with a reasonable opportunity to compete.

KPMG Test

On brief, Verizon Virginia maintained that KPMG's Virginia test was exhaustive, addressing all stages of a CLEC's relationship with Verizon Virginia, and modeled after substantially similar tests it conducted in New York, Massachusetts, and Pennsylvania.[600] KPMG's Virginia test included areas not tested previously, such as Line-splitting and line loss reports.[601] In its final report, KPMG found that Verizon Virginia failed to satisfy only one of the 545 test points reviewed.[602]

AT&T and WorldCom criticize the limitations of the KPMG test. AT&T argued that the KPMG test was limited in scope and failed to test critical aspects of Verizon Virginia's OSS.[603] Among other things, AT&T asserts that (i) KPMG's test is not representative of CLECs' real world experience; (ii) KPMG failed to test the legacy service order processor, which is being replaced by expressTRAK; (iii) KPMG failed to test electronic billing; (iv) KPMG failed to test the retail analogs used for retail parity comparisons; and (v) KPMG's volume test did not test provisioning and billing, or the ability of Verizon Virginia to handle large volumes of orders on a manual basis.[604] Similarly, WorldCom disparages KPMG's test for (i) failing to be blind, (ii) failing to conduct root cause analysis, (iii) failing to test all orders end-to-end, and (iv) closing observations and exceptions based on the promise of a future fix.[605] Both call for real world commercial tests.[606]

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[598] *Id.*
[599] *See*, *e.g.*, Exhibit No. 3, at ¶¶ 41, 97-100, 118, 121, 144.
[600] Verizon Virginia Brief at 70.
[601] *Id.*
[602] *Id.*; *See*, Exhibit No. 10, at ¶ 14.
[603] AT&T Brief at 48.
[604] *Id.* at 48-64.
[605] WorldCom Brief at 11-14.
[606] *Id.* at 14; AT&T Brief at 47-48.

Most of the criticisms lodged by AT&T and WorldCom have also been made in conjunction with KPMG tests in other states. For example, the FCC recently placed significant reliance on the conclusions generated from KPMG's test to find that Verizon's OSS in New Jersey is in compliance with the checklist.[607] Indeed, with a few exceptions, the FCC discussed and rejected all the above listed criticisms of AT&T and WorldCom.[608]

While the FCC may place significant reliance on a third-party test, the FCC continues to find that the most probative evidence that OSS functions are operationally ready is actual commercial usage.[609] This reflects that by its very nature, there are limitations to a third-party test.

For example, based on my observations of KPMG's test, one of its strengths was the volume and stress testing of Verizon Virginia's pre-ordering and ordering systems. As described in KPMG's Draft Final Report, the volume and stress tests were based on forecasted future order activity for the entire Verizon East (old Bell Atlantic fourteen-state footprint).[610] Pre-ordering transactions were designed to elicit a valid response to the query, and orders were designed to return confirmations that the order was received by expressTRAK.[611] Further, "[a] limited number of pre-order and order transactions were submitted with error conditions to test how Verizon [Virginia]'s systems handled such transactions under increased volume conditions."[612] This is what was tested in the volume and stress tests for pre-ordering and ordering. This is all KPMG's volume and stress tests for pre-ordering and ordering have ever been designed to test. Criticism for what the test is not designed to do does not impinge upon the validity of what was actually tested. KPMG's Virginia test covered 545 test points. KPMG's findings concerning these test points are probative and support Verizon Virginia's contention that it has deployed the necessary systems and personnel to provide CLECs with nondiscriminatory access to each of the necessary OSS functions, and has adequately assisted CLECs in understanding how to implement and use all of the OSS functions available to them.

Performance Results

As described above, the most probative evidence that OSS functions are operationally ready is actual commercial usage. Actual commercial usage is precisely what the Guidelines and New Guidelines are designed to measure. Measuring actual commercial usage is also where this Commission and its Staff have devoted most of their resources. First, the Commission has established comprehensive performance measurements, (*i.e.*, the Guidelines and New Guidelines) that are comparable to performance measurements adopted in New York, Pennsylvania, and New Jersey. Second, the Commission has established an ongoing process for

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[607] *Verizon New Jersey Order* at ¶ 79.
[608] *Id.* at ¶¶ 80-87.
[609] *Id.* at Appendix C ¶ 31.
[610] Exhibit No. 3, Attachment 301 at 163.
[611] *Id.* at 156-61.
[612] *Id.* at 164.

further review and adjustment of performance measurements. Third, the Commission has committed to test and audit the performance measurements reported by Verizon Virginia. As described in the testimony of Staff witness Gilmour, the Staff has already developed the capability to replicate Verizon Virginia's reported results. Finally, the Commission is in the final stages of adopting a performance assurance plan that will provide for remedies when Verizon Virginia fails to meet a prescribe performance levels.

Verizon Virginia claims "[w]hile [it] cannot claim perfect performance . . . the evidence submitted in this proceeding shows that, 'based on the totality of circumstances and information,' it is meeting its obligations under § 271."[613] AT&T and WorldCom take a differing view of Verizon Virginia's reported performance. Both focus particular attention on flow-through results. In its reply, Verizon Virginia supplemented its performance results with performance reports for the three months ended April 2002. The flow-through results for these months are shown below:[614]

Description	February 2002	March 2002	April 2002
OR-5-01 – Total Flow-Through – Resale	78.65%	82.91%	81.76%
OR-5-01 – Total Flow-Through – UNE	59.14%	60.51%	62.01%
OR-5-03 – Achieved Flow-Through – Resale	91.04%	94.06%	93.05%
OR-5-03 – Achieved Flow-Through – UNE	81.38%	85.45%	82.71%

AT&T contends that Verizon Virginia's flow-through performance is substandard, particularly when compared to performance in other states.[615] Moreover, AT&T points out that the Commission has addressed Verizon Virginia's flow-through in the context of the performance assurance plan case.[616] The Virginia plan will have a Special Provision for failure to meet flow-through standards.[617] However, Verizon Virginia is granted a "ramp up" provision that mitigates the plan's remedy payments until January 1, 2003.[618] Notwithstanding the performance plan provision, AT&T asserts that by failing to meet the 80% standard for OR-5-01 or the 95% standard for OR-5-03, Verizon Virginia is not yet ready for § 271.[619]

Likewise, WorldCom attacks Verizon Virginia's statement that its flow-through performance is approximately the same as its flow-through performance in other states when it was seeking § 271 relief.[620] WorldCom notes Verizon Virginia sought § 271 in the other states "anywhere from 12 to 36 months ago."[621] WorldCom alleges that flow-through performance

[613] Verizon Virginia Brief at 79-80.
[614] Exhibit No. 12, Attachment 407.
[615] AT&T Brief at 64.
[616] *Id.* at 65.
[617] *Id.*
[618] *Id.*
[619] *Id.*
[620] WorldCom Brief at 18.
[621] Verizon Virginia OSS Panel, Tr. at 518.

was dismal for New York for 18 months following long distance entry.[622] WorldCom urges the Commission to require Verizon Virginia to meet standard percentages before indicating checklist compliance.[623]

I disagree with AT&T and WorldCom that Verizon Virginia's flow-through performance fails to meet the standards for checklist compliance. As AT&T affirms, the Commission has addressed flow-through in the performance assurance plan case under which Verizon Virginia will be subject to a Special Provision for failure to meet flow-through standards. Moreover, a "ramp up" ending January 1, 2003, in all probability, is likely to be only a few months. (Obviously, this period will be less than six months from the start of the performance assurance plan.) With these provisions already agreed upon, CLECs can anticipate continued improvement in Verizon Virginia's flow-through rates over the next few months. If this does not occur, the remedies of the performance assurance plan will come into play. In addition, based on a review of Verizon Virginia's flow-through history, I find that flow-through rates have been increasing. For example, the flow-through rates shown above for February 2002 through April 2002, are higher than the flow-through rates shown earlier for November 2001 through January 2002.

WorldCom points to other performance measurements in which Verizon Virginia fails to meet established standards, including: (i) PR-1 "Average Interval Offered;" (ii) PR-2 "Average Interval Completed;" (iii) PR-3 "Percent Completed in X Days;" (iv) PR-5-01 "Percentage Missed Appointment – Verizon – Facilities;" (v) MR-2-01 "Network Trouble Report Rate for Special Services;" (vi) OR-1 "Order Confirmation Timeliness;" and (vii) "Reject Timeliness."[624] It should be noted that these metrics include many submetrics. Moreover, Verizon Virginia failed to meet the established standard for only some of the submetrics. Based on reviews of Verizon Virginia's actual performance results, and the record in this proceeding, Verizon Virginia's performance results indicate that it is meeting its obligations under § 271.

Billing

As mentioned above, Verizon Virginia's expressTRAK billing system is unique to the old C&P Telephone jurisdictions and thus, has not been the subject of prior § 271 proceedings. Nonetheless, the process by which Verizon Virginia demonstrates that this system and Verizon Virginia's other billing related processes meet the requirement of nondiscriminatory access to its billing OSS functions has been approved in Pennsylvania and New Jersey.

Verizon Virginia states that to meet the requirement of nondiscriminatory access to its billing OSS functions, it "must demonstrate that it provides competing carriers with . . . wholesale bills in a manner that gives competing carriers a meaningful opportunity to compete."[625] Verizon Virginia maintains that it meets this standard as (i) its wholesale bills are produced using the same systems and formats that it uses to bill its end user customers;

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[622] WorldCom Brief at 18.
[623] *Id.*
[624] *Id.* at 18-22.
[625] Verizon Virginia Brief at 61; *See*, *Verizon New Jersey Order* at Appendix C ¶ 39.

(ii) wholesale bills are available on paper, CD-ROM, and in the BOS BDT format; (iii) KPMG tested its billing procedures and paper bills generated by its billing systems; (iv) PwC attested to the comparability of the BOS BDT bill to the paper bill; and (v) performance results show its wholesale bills are timely and accurate.[626]

Cox, Covad, and NTELOS described problems they have had with the accuracy of Verizon Virginia's wholesale bills and their attempts to resolve those problems. Cox charges that its wholesale bills from Verizon Virginia repeatedly include erroneous federal tax charges as well as errors on mileage charges and channel termination fees.[627] Further, Cox contends that it took approximately 120 days to resolve billing claims.[628] Cox recommends that Verizon Virginia institute quality control procedures to ensure federal taxes are not assessed against any wholesale accounts and reduce the time to resolve billing claims to less than 30 days.[629]

Covad presents a large error involving several states that took nine months to correct.[630] Covad criticizes the KPMG test for failing to look at real CLEC bills and real billing disputes.[631] Covad characterizes its experiences concerning the resolution of billing disputes as "painful, to say the least."[632]

NTELOS notes that it identified approximately $285,000 in overcharges in 2001.[633] It has been NTELOS' experience that Verizon Virginia's wholesale bills have often been inaccurate, causing it to devote scarce resources to review, research, and dispute improper charges.[634]

Verizon Virginia has presented evidence that it has improved its wholesale billing and billing dispute process in recent months and that it has taken corrective measures in direct response to some of the problems described by CLECs. For example, on May 17, 2002, Verizon Virginia instituted a correction to resolve Cox's tax problem.[635] Moreover, Verizon Virginia has procedures in place concerning the tax-exempt status of CLECs.[636] Furthermore, in January 2002, Verizon's Wholesale Claims organization was reorganized and expanded to improve claims resolution performance.[637] In March and April 2002, Verizon Virginia claims to have acknowledged more than 95% of CLECs' billing disputes within two business days, and

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[626] Verizon Virginia Brief at 62-65.
[627] Cox Brief at 33.
[628] *Id.* at 33-34.
[629] *Id.* at 34.
[630] Covad Brief at 22-23.
[631] *Id.* at 21.
[632] *Id.* at 25.
[633] NTELOS Brief at 5; *See*, Exhibit No. 91, at 5.
[634] NTELOS Brief at 5.
[635] Exhibit No. 81.
[636] *Id.*
[637] Exhibit No. 10, at ¶ 139.

resolved 100% of them within 28 calendar days after acknowledgement.[638] Performance metrics establishing these standards, *i.e.*, BI-3-04 – "Percent CLEC Billing Claims Acknowledged within 2 Business Days," and BI-3-05 – "Percent CLEC Billing Claims Resolved within 28 Calendar Days after Acknowledgement," became effective in Virginia for the June 2002 data month.[639] These metrics appear to meet Cox's recommendation to require resolution of billing disputes within 30 days.

In addition, several of the CLECs raise issues regarding double billing of retail customers. Again, Verizon Virginia demonstrates that it has instituted processes and procedures to address the problem. During the hearing Verizon Virginia's OSS Billing Panel testified that in November 2000, Verizon Virginia was receiving approximately 1000 double billing complaints a month and has reduced that number to 18 for April 2002 and 20 for May 2002.[640] Furthermore, deployment of expressTRAK has helped reduce double billing by reducing the intervals between the issuance of PCNs and BCNs, which is one of the root causes of double billing.[641]

Finally, AT&T and WorldCom contend that the BOS BDT has not been adequately tested.[642] I disagree. The BOS BDT has been subjected to a similar process of review in both Pennsylvania and New Jersey and has been approved by the FCC in both cases. In addition, Verizon Virginia has a BOS BDT Quality Review and Adjustment Process in place to ensure that the BOS BDT balances internally and that it matches the paper bills prior to release to a CLEC.[643] The relatively low level of these adjustments supports a finding that BOS BDT is functioning appropriately.[644]

Accordingly, I find that Verizon Virginia has shown that its billing systems give competing carriers a meaningful opportunity to compete and are otherwise compliant with the Act and FCC rules.

Other OSS Issues

CLECs describe several other problems they have encountered in attempting to utilize Verizon Virginia's OSS. Without going into the specifics of each of these OSS issues, I find that none of these issues rises to the level of evidence that Verizon Virginia's OSS fails to offer an efficient competitor a meaningful opportunity to compete. This is not to minimize the problems experienced by CLECs, which one CLEC described as "death by a thousand cuts."[645] Resolution

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[638] *Id.* at ¶ 140; Verizon Virginia Brief at 65.
[639] Exhibit No. 10, at ¶ 140.
[640] Verizon Virginia's OSS Billing Panel, Tr. at 618-19, 649, 656; Verizon Virginia Brief at 66.
[641] Verizon Virginia's OSS Billing Panel, Tr. at 623-24.
[642] AT&T Brief at 56; WorldCom Brief at 14.
[643] Exhibit No. 6, at ¶ 6.
[644] Verizon Virginia's OSS Billing Panel at 612-13.
[645] On the other hand, Verizon Virginia would likely contend that "they are just scratches."

of these other problems should be addressed through separate complaints, or through the institution of proper performance standards and remedies.

e) Conclusion

Based on the record I find that Verizon Virginia provides CLECs with nondiscriminatory access to its OSS.

3. Access to UNEs

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)."[646]

a) Description

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 technically feasible point on rates, terms and conditions that are just, reasonable, and nondiscriminatory."[647] 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.[648]

b) Standard of Review

In the *Ameritech Michigan Order*, the FCC emphasized that the ability of requesting carriers to use UNEs, as well as combinations of UNEs, is integral to achieving Congress's objective of promoting competition in local telecommunications markets.[649] Using combinations of UNEs provides a competitor with the incentive and ability to package and market services in ways that differ from the BOCs' existing service offerings in order to compete in the local telecommunications market.[650] Moreover, combining the incumbent's UNEs with their own facilities encourages facilities-based competition and allows competing providers to provide a wide array of competitive choices.[651] Because the use of combinations of UNEs is an important strategy for entry into the local telecommunications market, as well as an obligation under the requirements of section 271, the FCC examines section 271 applications to determine whether competitive carriers are able to combine network elements as required by the Act and the FCC's

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[646] 47 U.S.C. § 271(c)(2)(B)(ii); *Verizon New Jersey Order* at Appendix C ¶ 43.
[647] 47 U.S.C. § 251(c)(3); *Verizon New Jersey Order* at Appendix C ¶ 43.
[648] *Id.*
[649] *Ameritech Michigan Order* at ¶ 332; *BellSouth South Carolina Order* at 195; *Verizon New Jersey Order* at Appendix C ¶ 44.
[650] *BellSouth South Carolina Order* at 195; *Verizon New Jersey Order* at Appendix C ¶ 44.
[651] *Bell Atlantic New York Order* at ¶ 230; *Verizon New Jersey Order* at Appendix C ¶ 44.

regulations.[652] The Supreme Court on May 13, 2002, upheld the FCC's combination rules finding that the requirement "is consistent with the Act's goals of competition and nondiscrimination, and imposing it is a sensible way to reach the result the statute requires."[653]

c) Summary of the Evidence Before the Commission

Verizon Virginia, WorldCom, and OpenBand presented evidence concerning access to UNEs.

Verizon Virginia – Direct Case

Verizon Virginia contended that it provides access to UNEs, separately or in combined form in the same manner as Verizon provides access in other states in which it has received § 271 authorization.[654] Moreover, Verizon Virginia stated that its facility assignment systems and process do not discriminate between retail service and UNE requests.[655] In addition, Verizon Virginia maintained that it offers UNEs in an already combined form and offers CLECs the means by which the CLECs can combine individual UNEs.[656] Included among the UNE combinations offered by Verizon Virginia are combinations of unbundled loop and unbundled switching elements, otherwise known as Unbundled Network Element-Platform ("UNE-P") and combinations of unbundled loop and interoffice facility network elements such as EELs.[657]

WorldCom

As described above, WorldCom witness Freifeld argued that because this Commission could not conduct arbitrations under the Act, and because WorldCom has a pending arbitration case before the FCC to address issues related to Checklist Item 2, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 2 at this time.[658] Mr. Freifeld asserted that pending before the FCC is whether Verizon Virginia will provide combined network elements that it ordinarily combines within its own network, but that do not happen to be combined at the moment WorldCom orders the elements.[659] Mr. Freifeld maintained that Verizon Virginia's failure to provide such combined elements "is a violation of its obligation to provide nondiscriminatory access to network elements."[660]

OpenBand

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[652] *Id.*
[653] *Verizon v. FCC*, 2002 WL 970643 at *36; *Verizon New Jersey Order* at n.734.
[654] Exhibit No. 1, at ¶ 94.
[655] *Id.*
[656] *Id.* at 97.
[657] *Id.* at 97-98.
[658] Exhibit No. 65, at ¶ 13.
[659] *Id.* at ¶ 11.
[660] *Id.*

Robert W. Walker, president of Comsource, Inc., presented testimony on behalf of OpenBand in which he raised issues concerning UNE combinations.[661] Mr. Walker stated that OpenBand "expects that it will require combinations of interoffice transport, and perhaps other network elements, in order to connect its community-based, broadband networks to each other and to outside networks."[662] Mr. Walker urged the Commission to reaffirm the requirement that Verizon Virginia not separate UNEs that it currently combines.[663] Also, Mr. Walker asked the Commission to follow the lead of a number of other state commissions and reinstitute obligations requiring Verizon Virginia affirmatively to combine network elements on behalf of CLECs.[664]

Verizon Virginia – Reply

In its Reply Checklist Declaration, Verizon Virginia argues that OpenBand's request that the Commission reaffirm the requirement that Verizon Virginia may not separate UNEs that are already combined is unnecessary because Verizon Virginia currently abides by all applicable provisions of law and FCC regulations, and will continue to do so.[665] Verizon Virginia goes on to argue that it has already responded appropriately to the recent U.S. Supreme Court decision regarding UNE combinations.[666]

d) Discussion

The effect of WorldCom's pending arbitration is addressed in the Discussion section to Checklist Item 1. As to OpenBand's issue regarding the combination of network elements, on brief, Verizon Virginia stated the Commission need not reaffirm the requirement that Verizon Virginia not separate UNEs that are already combined.[667] Verizon Virginia affirmed that it "already abides by that requirement . . . ."[668] Thus, the finding that Verizon Virginia offers nondiscriminatory access to network elements will be based in part on Verizon Virginia's affirmation it will not separate UNEs that are already combined.

e) Conclusion

Based on the record and the above discussion, I find that Verizon Virginia is offering nondiscriminatory access to network elements in accordance with the requirements of § 251(c)(3).

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[661] Exhibit No. 64 at ¶¶ 26-30.
[662] *Id.* at ¶ 26.
[663] *Id.* at ¶ 27.
[664] *Id.* at ¶ 28.
[665] Exhibit No. 8, at ¶ 65.
[666] *Id.* at ¶¶ 66-67.
[667] Verizon Virginia Brief at 20.
[668] *Id.*

4. Pricing of Network Elements

Checklist item 2 of section 271 states that a BOC must provide "nondiscriminatory access to network elements in accordance with sections 251(c)(3) and 252(d)(1)" of the Act.[669] Section 251(c)(3) requires incumbent 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."[670] 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.[671]

a) Description

Pursuant to this statutory mandate, the Commission has determined that prices for UNEs must be based on TELRIC of providing those elements.[672] The Commission also promulgated rule 51.315(b), which prohibits incumbent LECs from separating already combined elements before providing them to competing carriers, except on request.[673]

b) Standard of Review

The FCC has held previously 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."[674]

Although the U.S. Court of Appeals for the Eighth Circuit stayed the Commission's pricing rules in 1996,[675] 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.[676] In reaching its decision, the Court acknowledged that § 201(b) "explicitly

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[669] 47 U.S.C. § 271(c)(2)(B)(ii); *Verizon New Jersey Order* at Appendix C ¶ 45.
[670] 47 U.S.C. § 251(c)(3); *Verizon New Jersey Order* at Appendix C ¶ 45.
[671] 47 U.S.C. § 252(d)(1); *Verizon New Jersey Order* at Appendix C ¶ 45.
[672] *Local Competition First Report and Order*, ¶¶ 674-79; 47 C.F.R. §§ 51.501 *et seq*.; *Verizon New Jersey Order* at Appendix C ¶ 45.
[673] 47 C.F.R. § 51.315(b); *Verizon New Jersey Order* at Appendix C ¶ 45.
[674] *Bell Atlantic New York Order* at 244; *SWBT Kansas/Oklahoma Order* at ¶ 59; *Verizon New Jersey Order* at Appendix C ¶ 45.
[675] *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 800, 804, 805-06 (8th Cir. 1997); *Verizon New Jersey Order* at Appendix C ¶ 46.
[676] *AT&T Corp. v. Iowa Utils. Bd*., 525 U.S. 366 (1999); *Verizon New Jersey Order* at Appendix C ¶ 46.

grants the FCC jurisdiction to make rules governing matters to which the 1996 Act applies."[677] Furthermore, the Court determined that § 251(d) also provides evidence of an express jurisdictional grant by requiring that "the [FCC] [shall] complete all actions necessary to establish regulations to implement the requirements of this section."[678] The Court also held that the pricing provisions implemented under the FCC's rulemaking authority do not inhibit the establishment of rates by the states.[679] The Court concluded that the FCC has jurisdiction to design a pricing methodology to facilitate local competition under the 1996 Act, including pricing for interconnection and unbundled access, as "it is the States that will apply those standards and implement that methodology, determining the concrete result."[680]

On remand from the Supreme Court, the Eighth Circuit concluded that while TELRIC is an acceptable method for determining costs, certain specific requirements contained within the FCC's pricing rules were contrary to Congressional intent.[681] The Supreme Court on May 13, 2002, upheld the FCC's forward-looking pricing methodology in determining costs of UNEs and "reverse[d] the Eighth Circuit's judgment insofar as it invalidated TELRIC as a method for setting rates under the Act."[682] Accordingly, the Commission's pricing rules remain in effect.[683]

c) Summary of the Evidence Before the Commission

Evidence concerning the pricing of network elements was presented by Verizon Virginia, Cavalier, AT&T, WorldCom, and Covad.

Verizon Virginia – Direct Case

On April 15, 1999, the Commission issued its Final Order in Case No. PUC-1997-00005[684] in which it set the following TELRIC-compliant rates for the following UNEs.[685]

UNE / RATE ELEMENT	Recur. Rate	NRC Rate
UNBUNDLED LOOPS		
2W Basic		
DC 1	10.74	
DC 2	16.45	

[677] *AT&T Corp. v. Iowa Utils. Bd*., at 380; *Verizon New Jersey Order* at n.742.
[678] *AT&T Corp. v. Iowa Utils. Bd*., at 382; *Verizon New Jersey Order* at n.742.
[679] *Id.*
[680] *Id.*
[681] *Iowa Utils. Bd. v. FCC*, 219 F.3d 744 (8th Cir. 2000), *petition for cert. granted sub nom. Verizon Communications v. FCC*, 121 S. Ct. 877 (2001); *Verizon New Jersey Order* at Appendix C ¶ 46.
[682] *Verizon v. FCC,* 2002 WL 970643 at *22; *Verizon New Jersey Order* at Appendix C ¶ 46.
[683] *Verizon New Jersey Order* at Appendix C ¶ 46.
[684] *Virginia Pricing Case*.
[685] Exhibit No. 1, at ¶ 99, Attachment 203i.

DC 3	29.40	
Service Order – Connect		10.81
Installation – No Prem Visit – Initial & Additional		2.68
Installation – Prem Visit – Initial		47.55
Installation – Prem Visit – Additional		21.69
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
ISDN		
DC 1	12.52	
DC 2	18.23	
DC 3	31.18	
Service Order – Connect		15.29
Installation – No Prem Visit – Initial & Additional		11.61
Installation – Prem Visit – Initial		56.48
Installation – Prem Visit – Additional		30.62
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
4W Premium Loop		
DC 1	22.25	
DC 2	33.23	
DC 3	56.75	
Service Order – Connect		10.81
Installation – No Prem Visit – Initial & Additional		50.89
Installation – Prem Visit – Initial		107.50
Installation – Prem Visit – Additional		81.63
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
2W Customer Specified Signaling		
DC 1	10.74	
DC 2	16.45	
DC 3	29.40	
Service Order – Connect		10.81
Installation – No Prem Visit – Initial & Additional		50.89
Installation – Prem Visit – Initial		107.50
Installation – Prem Visit – Additional		81.63
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
4W Customer Specified Signaling		
DC 1	22.25	
DC 2	33.23	
DC 3	56.75	
Service Order – Connect		10.81
Installation – No Prem Visit – Initial & Additional		50.89

Installation – Prem Visit – Initial		107.50
Installation – Prem Visit – Additional		81.63
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
DS-1		
DC 1	110.61	
DC 2	142.49	
DC 3	181.29	
Service Order – Connect		10.81
Installation – No Prem Visit – Initial & Additional		50.89
Installation – Prem Visit – Initial		107.50
Installation – Prem Visit – Additional		81.63
Service Order – Disconnect		4.91
Installation Disconnect – Prem/No Prem – Initial & Additional		1.07
NETWORK INTERFACE DEVICE		
Standalone NID		
2 Wire NID	0.44	
4 Wire NID	0.44	
COORDINATED CUTOVER		
Loop – No Prem Visit		2.89
Loop – Prem Visit		11.74
Port		2.89
UNBUNDLED SWITCHING		
POTS/PBX/CTX Port	1.30	
Service Order – Connect		10.81
Installation – Initial		2.68
Service Order – Disconnect		4.91
Installation Disconnect – Initial		1.07
ISDN PRI Port	81.28	
Service Order – Connect		10.81
Installation – Initial		102.13
Service Order – Disconnect		4.91
Installation Disconnect – Initial		1.07
ISDN Single Line BRI or CTX Port	6.52	
Service Order – Connect		10.81
Installation – Initial		2.68
Service Order – Disconnect		4.91
Installation Disconnect – Initial		1.07
Public/Semi-Public Port	1.51	
Service Order – Connect		10.81
Installation – Initial		2.68
Service Order – Disconnect		4.91
Installation Disconnect – Initial		1.07

DID Port	3.63	
Service Order – Connect		10.81
Installation – Initial		609.88
Service Order – Disconnect		4.91
Installation Disconnect – Initial		1.07
SWITCHING (PER MOU)		
Usage		
Originating with Vertical Services	0.004129	
Terminating with Vertical Services	0.002079	
POTS Features		
PBX	0.000833	
Multi-Line Hunting	0.000001	
Centrex Per MOU		
Intercom & Features	0.017372	
Hunting	0.000464	
UCD	0.000655	
Queing	0.000595	
Attendant	0.021223	
Attendant Console	0.017200	
Centralized Attendant Service	0.214070	
Attendant Access Code Dialing	0.040065	
ARX Per MOU	0.000408	
ETS Per MOU	0.000724	
Service Order Connect (All POTS Features)		8.42
ISDN Usage		
Digital – Circuit Switch Voice/Features – Originating	0.001993	
Digital – Circuit Switch Voice/Features – Terminating	0.000859	
Digital – Circuit Switch Data – Originating	0.001013	
Digital – Circuit Switch Data – Terminating	0.000859	
Service Order Connect (All ISDN Usage)		8.42
ISDN Features		
Centrex	0.004007	
Service Order Connect		8.42
Transport and Termination – per MOU		
Termination at Tandem	0.001590	
Termination at End Office	0.000927	
Tandem Transit Switch		
Tandem Switching MOU	0.000548	
Common Transport (Per MOU)		
Tandem Switching MOU	0.000548	
Fixed – Common (Switched Transport – Fixed)	0.000114	
DEDICATED TRANSPORT – PER CIRCUIT		
Entrance Facilities		

DS-1 Channel Termination	119.15	
Service Order – Connect		10.81
Installation – Initial		489.86
Installation – Additional		241.08
Service Order – Disconnect		4.91
Installation Disconnect – Initial		67.13
Installation Disconnect – Additional		32.61
DS-3 Channel Termination	767.44	
Service Order – Connect		10.81
Installation – Initial		489.86
Installation – Additional		241.08
Service Order – Disconnect		4.91
Installation Disconnect – Initial		67.13
Installation Disconnect – Additional		32.61
Voice Grade Chan Term 2W	13.76	
Service Order – Connect		10.81
Installation – Initial		333.32
Installation – Additional		192.99
Service Order – Disconnect		4.91
Installation Disconnect – Initial		55.39
Installation Disconnect – Additional		33.02
Voice Grade Chan Term 4W	27.89	
Service Order – Connect		10.81
Installation – Initial		441.02
Installation – Additional		255.99
Service Order – Disconnect		4.91
Installation Disconnect – Initial		65.71
Installation Disconnect – Additional		39.32
DS-3 to DS-1 Multiplexing	185.73	
Service Order – Connect		10.81
Installation – Initial & Additional		441.42
Service Order – Disconnect		4.91
Installation Disconnect – Initial & Additional		43.66
DS-1 to Voice Grade Multiplexing	53.77	
Service Order – Connect		10.81
Installation – Initial & Additional		441.42
Service Order – Disconnect		4.91
Installation Disconnect – Initial & Additional		43.66
IOF		
DS-1 Fixed (includes both ends)	35.10	
Service Order – Connect		10.81
Installation – Initial		216.79
Installation – Additional		11.86

Service Order – Disconnect		4.91
Installation Disconnect – Initial		92.88
Installation Disconnect – Additional		7.27
DS-3 Fixed (includes both ends)	604.53	
Service Order – Connect		10.81
Installation – Initial		216.79
Installation – Additional		11.86
Service Order – Disconnect		4.91
Installation Disconnect – Initial		92.88
Installation Disconnect – Additional		7.27
Voice Grade Fixed (includes both ends)	9.54	
Service Order – Connect		10.81
Installation – Initial		216.79
Installation – Additional		11.86
Service Order – Disconnect		4.91
Installation Disconnect – Initial		92.88
Installation Disconnect – Additional		7.27
DDS – Fixed (includes both ends)	9.84	
Service Order – Connect		10.81
Installation – Initial		216.79
Installation – Additional		11.86
Service Order – Disconnect		4.91
Installation Disconnect – Initial		92.88
Installation Disconnect – Additional		7.27
DIGITAL CROSS CONNECT SYSTEM		
Service Establishment		1683.85
Service Disconnect		84.06
Database Modification		134.70
Reconfiguration (30 minute increment)		29.67
Port Cost Per Month		
DS0 Termination	20.03	
Service Order – Connect		10.81
Installation		20.90
Service Order – Disconnect		4.91
Installation – Disconnect		3.37
DS1 Termination	69.95	
Service Order – Connect		10.81
Installation		20.23
Service Order – Disconnect		4.91
Installation – Disconnect		10.12
SIGNALING		
STP Port Termination (Monthly)	458.70	
Service Order – Connect		10.81

Installation		81.77
Service Order – Disconnect		4.91
STP Access Link (includes one end)	4.93	
Service Order – Connect		10.81
Installation – Initial		135.01
Installation – Additional		11.86
Service Order – Disconnect		4.91
Installation Disconnect – Initial		92.88
Installation Disconnect – Additional		7.27
SIGNALING DATABASE		
Databases		
800		
basic query	0.000658	
vertical query	0.000181	
LIDB (Per Query)		
Calling Card	0.0153	
Billed Number Screening	0.0153	
LIDB Point Codes Installation		80.93
LIDB Data Storage Installation		1381.66
DIRECTORY ASSISTANCE		
Directory Access (per call)	0.0313	
Directory Assistance Cost per Call	0.3209	
Direct Access Cost per Link Installation		27431.30
Direct Access – Svc. Establishment cost per customer Installation		13735.63
Branding Cost per Customer Message		1349.55
DA Transport		
Tandem Switched Transmission Cost per Call		
Transport	0.000098	
Tandem Switching Cost per Call	0.000468	
CALL COMPLETION		
Cost per Operator Work Second (Live)	0.010475	
Cost per Operator Work Second (Automated)	0.005547	
CUSTOMIZED ROUTING		
Per Line	0.12085	
Per Call	0.06043	
TIME AND MATERIAL		
Service Call – Dispatch & one 15 Minute Labor		27.35
Labor (additional 15 Min. Increments) OSP Tech		11.74
Labor – CO Technician – 15 Minute Increment		11.15
Service Order		6.47
DAILY USAGE FILE		
Cost per Tape	20.05	

Network Data Mover	0.000093	
CABS Billing per Bill Entry	0.000108	
CMDS	0.000093	
Message Recording	0.000246	
DUF TRANSPORT		
Communication Ports		
9.6kb	116.83	
56kb	483.91	
256kb	804.90	
T1 Port	2872.12	
Port Maintenance		
9.6kb	10.17	
56kb	28.08	
256kb	28.08	
T1 Port	356.61	
COMPUTER PROCESSING USAGE (CPU) per customer		
Data Transmission (CMDS and Tape)	1.18	
Line Installation	1.18	
Network Control Program Coding	1.18	
Port Set Up	0.18	
OPERATIONS SUPPORT SYSTEMS		
Pre-Ordering Per Query	.24	
EB-OSI Maintenance Per Trouble Ticket	1.16	
Ordering Per Transaction	3.83	
Non-Paper Media per CD-ROM	245.05	
SMS PRICING (AIN Service Creation)		
Developmental Charges		
Service Creation Access Ports	136.14	
Service Creation Usage		
Service Order – Connect – Service Establishment		878.23
Service Order – Service Activation		5.52
Remote Access per 24 Hour Day	1266.13	
On-Premise per 24 Hour Day	1266.13	
Certification and Testing Per Hour	76.49	
Help Desk Support Per Hour	80.95	
SERVICE CHARGES		
Subscription Charges	0.96	
Database Queries		
Network Query	0.0006	
CLEC Network Query	0.0006	
CLEC Switch Query	0.0006	
Trigger Charge		
Line Based	0.00042	

Office Based	0.00042	
Utilization Element	0.00031	
Service Modification		
DTMF Update Per Change	0.10	
Service Order Input		
Switched Based Announcement	0.00318	
INTERIM NUMBER PORTABILITY		
Cost Per MOU w/Transport	0.00151	
Cost Per MOU w/oTranport	0.00124	
Service Order – Connect		5.52

For UNEs that did not exist at the time of the *Virginia Pricing Case* or were not addressed in that case, Verizon Virginia determined their prices following one of two proxy methodologies. If the UNE rate element has a comparable existing UNE rate element, the rate set by the Commission for the comparable existing UNE rate element is used, as long as that rate is lower or equal to the rate any CLEC is paying.[686] If the UNE rate element does not have a comparable existing UNE rate element, Verizon Virginia set the price at "the lower of (1) any rate that a CLEC is currently paying Verizon [Virginia] or (2) the comparable New York rate adjusted . . . to reflect differences between New York and Virginia."[687]

Verizon Virginia adjusted for differences in costs between Virginia and New York based on the Universal Service Model, which showed relevant loop costs in Virginia to be 35% higher than in New York, and relevant port costs in Virginia to be 1% lower than in New York.[688] In addition, Verizon Virginia adjusted New York rates for rate design differences between Virginia and New York.[689]

Verizon Virginia offers the following UNEs based on a proxy pricing methodology: DS3 Loops, Two Wire xDSL Loops, Four Wire xDSL Loops, Distribution Two Wire Subloops, Distribution Four Wire Subloops, Feeder DS1 Subloops, Feeder DS3 Subloops, DDS/56 KD Loop, DS1 NIDs, dark fiber, IDLC/TR008 Ports, Switched DS1 Ports, SMDI Ports, Unbundled Coin Ports, Unbundled Public Access Line Ports, Unbundled Trunk Ports, STS-1 Transport and Facilities, OC-3 Transport and Facilities, OC-12 Transport and Facilities, xDSL Loop Qualification and Conditioning, Line Station Transfer, Line Sharing, EEL Testing, Centrex Platform, ISDN Centrex Platform, POTS Platform, ISDN-BRI Platform, Coin Platform, Public Access Line Platform, DS1 DID/DOD/PBX Platform, ISDN-PRI Platform, POTS/ISDN BRI FX Platform, DS1 DID/DOD/PBX FX Platform, and ISDN- PRI FX Platform.[690]

[686] Exhibit No. 1, at ¶ 100.
[687] *Id.* at ¶ 101.
[688] *Id.* at ¶ 104.
[689] *Id.* at ¶ 105.
[690] *Id.* at Attachment 203i.

Cavalier

The Cavalier Panel argued that Verizon Virginia discriminates against Cavalier by refusing to recognize significant demographic changes that have lowered costs for UNE loops.[691] Cavalier cited the Bethia Wire Center as an example of a wire center with reduced cost for which Verizon Virginia is unwilling to renegotiate the prices contained in its interconnection agreement with Cavalier.[692] Cavalier maintained such situations create a measurable overcharge to CLECs that significantly raises the cost to do business, even assuming it is still possible for CLECs to serve a Density 3 zone.[693] Moreover, Cavalier charged that in such situations Verizon Virginia keeps the cost savings for itself and effectively forecloses new competitors from entry.[694] Cavalier concluded that refusing to recognize significant demographic changes that have lowered costs is discriminatory and fails to meet the standards of Checklist Item 2.[695]

Furthermore, Cavalier complained of abusive prices for DSL conditioning.[696] Cavalier raised several issues regarding its attempts to provide DSL service to customers beyond 18,000 feet from their serving central office. Verizon Virginia simply refuses to process orders where Cavalier's advanced technology is capable of providing DSL service to customers beyond 18,000 feet.[697] One of the issues raised by Cavalier is that Verizon Virginia is offering "abusive" prices for DSL conditioning beyond 18,000 feet.[698] Cavalier based its view of Verizon Virginia's pricing on similar charges in other states.[699] Cavalier claimed that Verizon Virginia has rebuffed its efforts to get an amendment to its interconnection agreement.[700] In addition, Cavalier accused Verizon Virginia of inventing its own DSL rates as its rates were not approved by the Commission.[701]

AT&T

Robert J. Kirchberger, director of government affairs, law and state government affairs division of AT&T simply stated that "Verizon Virginia's existing UNE prices are too high to support competitive entry."[702]

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[691] Exhibit No. 72, at 55.
[692] *Id.* at 56.
[693] *Id.* at 57.
[694] *Id.*
[695] *Id.*
[696] *Id.* at 32-33.
[697] *Id.* at 31.
[698] *Id.* at 32-33.
[699] *Id.*
[700] *Id.* at 32.
[701] *Id.*
[702] Exhibit No. 95 at ¶ 3.

WorldCom

As described above, WorldCom witness Freifeld argued that because this Commission could not conduct arbitrations under the Act, and because WorldCom has a pending arbitration case before the FCC to address issues related to Checklist Item 2, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 2 at this time.[703] In this regard, Mr. Freifeld contended that issues remain open concerning whether Verizon Virginia's prices for UNEs comply with the FCC's TELRIC regulations.[704]

Covad

The Covad Panel termed Verizon Virginia's imposition of line and transfer charges on DSL loops as discriminatory.[705] In support, Covad pointed out that "neither retail customers nor purchasers of unbundled loops typically pay unique, non-recurring charges for a line and station transfer, even though Verizon [Virginia] might perform a line and station transfer to provide either a retail service or a non-DSL-related unbundled loop."[706]

In addition, Covad asserted that the conditioning charges Verizon Virginia imposes on CLECs make it uneconomical for Covad to offer service to these customers.[707] Covad explained that by imposing such excessive costs, Verizon Virginia has succeeded in limiting deployment of Covad's DSL service.[708]

In Covad's Responsive Supplemental Testimony on Electronic Billing, Ms. Evans argued that inaccurate electronic bills are even more troubling in view of the fact that Verizon Virginia is attempting to impose new charges on competitors without an agreement or order from the Commission.[709] Ms. Evans reported that Verizon Virginia notified CLECs by letter dated March 22, 2002, that payment of a bill by the CLEC signifies agreement to incorporate new charges into its interconnection agreement.[710] Though Verizon Virginia represented that in no case will the new UNE rates be higher than the current rates that CLECs are being billed, Ms. Evans cited to examples to the contrary, including line sharing rates that are significantly higher under Verizon Virginia's March 22 letter and the § 271 filing.[711] Ms. Evans showed that for Manual Loop Qualification, the charge in Covad's current Line Sharing Amendment is $53.72, while in the letter and § 271 application the rate is $93.70.[712] Similarly, Ms. Evans claimed that the rate for the Engineering Query has increased from $34.19 to $121.37, and the rate for

[703] Exhibit No. 65, at ¶ 13.
[704] *Id.* at ¶¶ 9-10.
[705] Exhibit No. 48, at ¶ 10.
[706] *Id.*
[707] *Id.* at ¶ 14.
[708] *Id.*
[709] Exhibit No. 49, at ¶ 4.
[710] *Id.*
[711] *Id.* at ¶ 5.
[712] *Id.*

Engineering Work Orders has increased from $193.15 to $500.90.[713] Finally, Ms. Evans contended that Verizon Virginia is now attempting to institute a rate for Cooperative Testing where none existed before.[714]

Ms. Evans concluded that all of the above problems are amplified, because certain BDT billing elements and summarization points are different than similar ones on the paper bill.[715] Ms. Evans stated that if Covad pays the bill, then, according to Verizon Virginia, it accepts the new rates as correct and modifies its interconnection agreement.[716]

Verizon Virginia – Reply

In its Reply Checklist Declaration, Verizon Virginia reaffirmed that all UNE rates offered by Verizon Virginia already conform to TELRIC.[717]

d) Discussion

The issues addressed in this section include: (i) Covad's Line Sharing Amendment prices; (ii) Cavalier's density zone and DSL disputes; and (iii) Use of New York rates.

Covad's Line Sharing Amendment Prices

As described by Covad witness Evans, Covad has a Line Sharing Amendment with Verizon Virginia, which includes prices that are lower than those Verizon Virginia implemented on March 22, 2002.[718] During the hearing and after some initial confusion on the part of Verizon Virginia's rebuttal witness,[719] counsel for Verizon Virginia acknowledged the existence of its Line Sharing Amendment with Covad and agreed to honor the prices contained therein.

> As Ms. Clayton indicated this morning, there was confusion on whether or not there existed a line sharing amendment between Covad and Verizon [Virginia], and Verizon [Virginia] had checked the appropriate records and was not able to locate it.
>
> Based on conversations this afternoon with Verizon [Virginia] and Covad, Verizon [Virginia] now has that – now has a valid amendment, and it will honor that amendment with Covad under the appropriate terms.

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[713] *Id.*
[714] *Id.*
[715] *Id.* at ¶ 6.
[716] *Id.*
[717] Exhibit No. 8, at ¶ 66.
[718] Exhibit No. 49, at ¶ 5.
[719] *See*, Clayton, Tr. at 661-62.

> And we will honor it back to the effective date of the amendment.[720]

Surprisingly, on brief, Covad argued the issue as if it had not received a commitment from Verizon Virginia to honor its agreement with Covad.[721] Nonetheless, the representation from Verizon Virginia's counsel should end this issue.

Cavalier's Disputes

Cavalier seeks to change to its current prices for DSL Loops contained in its interconnection agreement and seeks a change in the density zone classification of a specific wire center.[722] Neither of these issues addresses whether Verizon Virginia's UNE rates are consistent with the FCC's TELRIC principles. Both issues are more appropriately handled in an arbitration or generic pricing case.

New York Rates

Cavalier also contends that Verizon Virginia failed to present evidence that the UNE prices Verizon Virginia derived from New York prices are TELRIC-compliant.[723] Cavalier points to the inability of Verizon Virginia to explain an apparent inversion of density zone pricing (*i.e.*, in Virginia, the higher the density, the ***lower*** the price; but for some prices derived from New York, the higher the density, the ***higher*** the price).[724]

Verizon Virginia rests its assertion that the New York prices, as modified for Virginia, are TELRIC-compliant based on the FCC's use of benchmarks following similar methodology in other cases.[725] I agree that similar approaches have been used "as a way to transfer TELRIC compliance . . . by the FCC."[726] Indeed, in the *Verizon New Jersey Order* the FCC described the factors to be used to determine the reasonableness of rates developed in another state to include:

> whether the two states have a common BOC; whether the two states have geographic similarities; whether the two states have similar, although not necessarily identical, rate structures for comparison purposes; and whether the [FCC] has already found the rates in the comparison state to be TELRIC-compliant or an appropriate benchmark.[727]

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[720] Pulley, Tr. at 831.
[721] Covad Brief at 26.
[722] Cavalier Brief at 5-6.
[723] *Id.* at 5.
[724] West, Tr. at 118.
[725] *Id.* at 93.
[726] *Id.*
[727] *Virginia New Jersey Order* at ¶ 49.

In the *Verizon Maine Order*, the FCC found that New York rates were an appropriate benchmark for rates in Maine.[728] Such an analysis should also find New York rates appropriate for Virginia. Therefore, I find that Verizon Virginia has adequately supported its Virginia rates as being TELRIC-compliant for checklist verification purposes.

e) Conclusion

Based on the record and the above discussions, I find that Verizon Virginia satisfies the requirements of Checklist Item 2.

C. Checklist Item 3 – Poles, Ducts, Conduits, and Rights-of-Ways

Section 271(c)(2)(B)(iii) requires Verizon Virginia to provide nondiscriminatory access to poles, ducts, conduits, and rights-of-way it owns or controls, at just and reasonable rates in accordance with § 224.

1. Description

Section 224(f)(1) states that "[a] utility shall provide a cable television system or any telecommunications carrier with nondiscriminatory access to any pole, duct, conduit, or right-of-way owned or controlled by it." Section 224(a)(1) defines "utility" to include any entity, including a LEC, that controls "poles, ducts, conduits, or rights-of-way used, in whole or in part, for any wire communications." Notwithstanding the requirement of § 224(f)(1), § 224(f)(2) permits a utility providing electric service to deny access to its poles, ducts, conduits, and rights-of-way, on a nondiscriminatory basis, "where there is insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes."[729] In the *Local Competition First Report and Order*, the FCC concluded that, although the statutory exception enunciated in section 224(f)(2) appears to be limited to utilities providing electrical service, LECs should also be permitted to deny access to their poles, ducts, conduits, and rights-of-way because of insufficient capacity and for reasons of safety, reliability and generally applicable engineering purposes, provided the assessment of such factors is done in a nondiscriminatory manner.[730]

2. Standard of Review

Section 224 also contains two separate provisions governing the maximum rates that a utility may charge for "pole attachments."[731] Section 224(b)(1) states that the FCC shall regulate the rates, terms, and conditions governing pole attachments to ensure that they are "just and

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[728] *Verizon Maine Order*, at ¶ 32.
[729] 47 U.S.C. § 224(f)(2).
[730] *Local Competition First Report and Order* ¶¶ 1175-77; *Verizon New Jersey Order* at n.748.
[731] Section 224(a)(4) defines "pole attachment" as "any attachment by a cable television system or provider of telecommunications service to a pole, duct, conduit, or right-of-way owned or controlled by a utility."

reasonable." Notwithstanding this general grant of authority, § 224(c)(1) states that "[n]othing in [§ 224] shall be construed to apply to, or to give the [FCC] jurisdiction with respect to the rates, terms, and conditions, or access to poles, ducts, conduits and rights-of-way as provided in [section 224(f)], for pole attachments in any case where such matters are regulated by a State." Consequently, absent state regulation of terms and conditions of nondiscriminatory attachment access, the FCC retains jurisdiction.[732] As of 1992, nineteen states had certified to the FCC that they regulated the rates, terms, and conditions for pole attachments.[733] The Commission has not certified to the FCC that it regulates the rates, terms, and conditions for pole attachments in Virginia.[734]

3. Summary of the Evidence Before the Commission

Evidence concerning poles, ducts, conduits, and rights-of-ways was presented by Verizon Virginia and Cavalier.

Verizon Virginia – Direct Case

Verizon Virginia stated that it offers nondiscriminatory access to its poles, ducts, conduits and rights-of-way at rates, terms and conditions set forth in standard licensing agreements.[735] Verizon Virginia provides access on a "first-come, first-served" basis.[736] Upon request, Verizon Virginia provides access to information concerning the location and physical attributes of its poles, ducts, conduits, and rights-of-way relative to where the carrier intends to request access.[737] Carrier applications to attach to or occupy specific poles, ducts, conduits, or rights-of-way are processed on a "first-come, first-served" basis.[738] Verizon Virginia represented that from November 2001 through January 2002, it responded to 157 applications within 45 days of receipt.[739] If spare capacity is not available, but may be accommodated through the clearing of obstructions and rearrangement, transfer, replacement, removal or modification of Verizon Virginia's facilities, make-ready costs apply.[740] Verizon Virginia contractors and employees conduct the make-ready work, which is scheduled without regard to the requesting carrier's identity.[741] The requesting carrier is responsible for the installation of its facilities.[742]

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[732] *Local Competition First Report and Order* ¶ 1232; *Bell Atlantic New York Order* at ¶ 264; Verizon New Jersey Order at n.751.
[733] *Verizon New Jersey Order* at Appendix C ¶ 47; *See States That Have Certified That They Regulate Pole Attachments*, Public Notice, 7 FCC Rcd 1498 (1992).
[734] *Id.*
[735] Exhibit No. 1, at ¶ 108-09, Attachment 206.
[736] *Id.* at ¶ 111.
[737] *Id.* at ¶ 112.
[738] *Id.* at ¶ 114.
[739] *Id.* at ¶ 116.
[740] *Id.* at ¶ 117.
[741] *Id.* at ¶ 118.
[742] *Id.* at ¶ 122.

Cavalier

The Cavalier Panel expressed concerns over the costs for make-ready work on poles, the time required to perform make-ready work, the time taken to grant/deny applications for pole attachments, Verizon Virginia's refusal to allow third-party contractors to move Verizon Virginia's attachments, Verizon Virginia's legacy practices and its problematic billing practices.[743]

Regarding cost and time, Cavalier represented that Verizon Virginia overstaffed and overworked every task performed, and performs the make-ready work only on its own schedule – regardless of the urgency of the CLEC.[744] As to the time Verizon Virginia uses to grant/deny requests for pole attachments, Cavalier asserted that Verizon Virginia is interpreting the FCC regulation of 45 days to mean that it must "acknowledge receipt" of the application within the 45 days, but can take an extended period after that to grant or deny the application.[745] Cavalier also stated that Verizon Virginia refuses to allow Cavalier's third-party contractors to process an area and move all attachments as necessary.[746] Cavalier claimed that Verizon Virginia insists that its own personnel or designated contractor perform the make-ready work and adjust Verizon Virginia's attachments on all poles, including poles owned by others.[747]

Cavalier defined Verizon Virginia's "legacy" practice to be a policy that any Verizon Virginia attachments be the bottommost attachment on the poles.[748] Cavalier complained that this practice at times requires multiple moves instead of allowing a CLEC to attach to the pole below Verizon Virginia.[749]

Finally, Cavalier maintained that the billing, received every six months, for poles and conduits is problematic and inaccurate.[750] Cavalier indicated that it must request a spreadsheet with permit numbers, to be able to reconcile the bill sent by Verizon Virginia with Cavalier's applications and records to verify that the charges are valid.[751] If a billing dispute arises, Cavalier reported that Verizon Virginia is unresponsive and has chosen to turn disputed bills over to collection agents.[752]

Verizon Virginia - Reply

In its Reply Checklist Declaration, Verizon Virginia reaffirmed that it offers telecommunications carriers nondiscriminatory access to poles, ducts, conduits, and rights-of-

[743] Exhibit No. 72, at 61-62.
[744] *Id.* at 62.
[745] *Id.* at 63.
[746] *Id.*
[747] *Id.*
[748] *Id.* at 64.
[749] *Id.*
[750] *Id.*
[751] *Id.*
[752] *Id.* at 64-65.

way at rates, terms and conditions pursuant to standard licensing agreements.[753] Indeed, Verizon Virginia pointed out that several of the issues raised by Cavalier are addressed in its license agreement with Verizon Virginia.[754]

In reply to concerns expressed by Cavalier over the costs for make-ready work on poles and the time required to perform make-ready work, Verizon Virginia stated that it follows the same standards for its own pole attachment projects.[755] Verizon Virginia explained that when an application for a pole attachment is received, it will verify the application's accuracy and that the proposed request meets engineering and safety standards, and perform an on-site visit to determine if any make-ready work is required.[756] Pursuant to the standard licensing agreement, if make-ready work is required, Verizon Virginia represented that it provides the CLEC with a cost estimate for the work based on "actual cost of time and material."[757]

In regards to Cavalier's concern over the time required to perform the make-ready work, Verizon Virginia represented that it schedules Cavalier's make-ready work on a first-come, first-served basis along with all other requests.[758] Verizon Virginia stated that from July 2001 through January 2002, it completed make-ready work for CLECs in an average of 94 days while completing its own make-ready work in an average of 217 days.[759]

Concerning Cavalier's claim that Verizon Virginia wrongly interprets the FCC's 45-day rule, Verizon Virginia pointed to language in its standard license agreement that specifies that Verizon Virginia has 45 days after the receipt of an application to grant or deny such applications.[760] Verizon Virginia affirmed that it has tracked all applications from CLECs for the past two years and that all have received a response within the required 45 days.[761] Furthermore, Verizon Virginia represented that the FCC's 45-day rule does not include any make-ready work and that "[t]he make-ready timeframe is separate and does not start until Cavalier has approved the estimated make-ready charges and authorized Verizon VA to proceed by providing advanced payment of Make Ready Work Estimate dollar amounts."[762]

Verizon Virginia agreed with Cavalier that Verizon Virginia does not permit contractors working for a third party to move Verizon Virginia attachments.[763] Verizon Virginia maintained that it "has an obligation to its customers to strive to provide trouble-free service, and does not want a third party, unaccountable to Verizon Virginia, potentially disrupting service to Verizon

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[753] Exhibit No. 8, at ¶ 70; *See*, Exhibit 1, Attachment 206.
[754] Exhibit No. 8, at ¶ 70.
[755] *Id.* at ¶ 71.
[756] *Id.*
[757] *Id*.
[758] *Id.* at ¶ 72.
[759] *Id.*
[760] *Id.* at ¶ 73.
[761] *Id.*
[762] *Id.*
[763] *Id.* at ¶ 74.

Virginia's customers."[764] Verizon Virginia confirmed that it does employ third party contractors for some of its work, but the contractors must follow the terms of its labor agreement.[765]

Addressing Cavalier's concern with the "legacy" practice of placing Verizon Virginia attachments at the bottommost position on the poles, Verizon Virginia asserted that this is the result of very practical reasons, including: (i) Verizon Virginia's heavier copper cable is attached bottommost so that sag caused by the heat of summer and the ice of winter would not cause the copper cable to rest on the lighter fiber and coaxial cables of CATV and CLECs; (ii) such rub of the cables over time would have the potential to damage one or both cables; and (iii) the assignment of location on the poles, power company in the highest position, Verizon Virginia in the lowest position, with the CATV and CLECs in the middle provides consistency and makes identification easier.[766]

Regarding billing for poles and conduits being problematic and inaccurate, Verizon Virginia confirmed that Cavalier did have a billing dispute over a semi-annual bill dated December 2001.[767] Verizon Virginia stated that it verified the bill and made a "slight correction" in Cavalier's favor.[768] Verizon Virginia asserted that this correction was issued immediately and the billing error was corrected on a going-forward basis.[769] Verizon Virginia suggested that Cavalier's problem with reconciling the billing may be due to Cavalier not keeping the necessary pole attachment records, including the license number Verizon Virginia provides a CLEC each time an application is granted.[770] Verizon Virginia explained that this license number includes the number of attachments and pole details and is needed in any future correspondence with Verizon Virginia regarding the license.[771]

4. Discussion

Verizon Virginia maintains that it offers nondiscriminatory access to the poles, ducts, conduits, and rights-of-way it owns or controls.[772] Verizon Virginia claims that Cavalier, which is the only CLEC to challenge Verizon Virginia's compliance with this Checklist Item, submitted only six applications for pole attachments in the past 18 months, in contrast to the 158,504 pole attachment applications of 58 telecommunications carriers and 160 other entities.[773]

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[764] *Id.*
[765] *Id.*
[766] *Id.* at ¶ 75.
[767] *Id.* at ¶ 76.
[768] *Id.*
[769] *Id.*
[770] *Id.*
[771] *Id.*
[772] Verizon Virginia Brief at 21.
[773] *Id.* at 21-22; Exhibit No. 8, at ¶ 72; Exhibit No. 1, at ¶ 108.

On brief, Cavalier argues that Verizon Virginia's "unilateral prevention of improved make-ready charges, its lengthy and needlessly complex make-ready practices, and its inability to provide accurate bills for pole and conduit rental, show that Verizon [Virginia] has not satisfied Checklist Item 3."[774]

From the perspective of compliance with the competitive checklist, I disagree. Cavalier has failed to provide any evidence that Verizon Virginia's policies and practices regarding pole attachments are discriminatory towards it or other CLECs. For example, Verizon Virginia reported that it completed make-ready work for CLECs and others in an average of 94 days, while it completed its own make-ready work within an average of 217 days.[775]

5. Conclusion

Based on the record, I find that Verizon Virginia provides nondiscriminatory access to poles, ducts, conduits, and rights-of-way that it owns or controls, at just and reasonable rates in accordance with § 224.

D. Checklist Item 4 – Unbundled Local Loops

Section 271(c)(2)(B)(iv) requires Verizon Virginia to provide "[l]ocal loop transmission from the central office to the customer's premises, unbundled from local switching or other services."

1. Description

The FCC has defined the loop as a transmission facility between a distribution frame, or its equivalent, in an incumbent LEC's central office, and the demarcation point at the customer's premises. This definition includes 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.[776] The FCC explicitly has included dark fiber and loop conditioning among the features, functions and capabilities of the loop.[777] The FCC also included, "attached electronics (except those used for the provisioning of advanced services, such as DSLAMs [DSL Access Multiplexers]) owned by the incumbent LEC . . . ."[778]

2. Standard of Review

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[774] Cavalier Brief at 11.
[775] Exhibit No. 1, at ¶ 121.
[776] *Local Competition First Report and Order* at ¶ 380; *UNE Remand Order* at ¶¶ 166-67, n.301; *Verizon New Jersey Order* at Appendix C ¶ 48.
[777] *UNE Remand Order* at ¶¶ 166-67, n.301; *Verizon New Jersey Order* at n.754.
[778] *UNE Remand Order* at ¶ 167.

In order to establish that it is "providing" unbundled local loops in compliance with Checklist Item 4, a BOC must demonstrate that it has a concrete and specific legal obligation to furnish loops and that it is currently doing so in the quantities that competitors demand and at an acceptable level of quality.[779] A BOC must also demonstrate that it provides nondiscriminatory access to unbundled loops.[780] Specifically, the BOC must provide access to any functionality of the loop requested by a competing carrier unless it is not technically feasible to condition the loop facility to support the particular functionality requested.[781] In order to provide the requested loop functionality, such as the ability to deliver xDSL services, the BOC may be required to take affirmative steps to condition existing loop facilities to enable competing carriers to provide services not currently provided over the facilities.[782] The BOC must provide competitors with access to unbundled loops regardless of whether the BOC uses digital loop carrier ("DLC") technology or similar remote concentration devices for the particular loops sought by the competitor.[783]

On December 9, 1999, the FCC released the *Line Sharing Order*, which introduced new rules requiring BOCs to offer requesting carriers unbundled access to the high-frequency portion of local loops ("HFPL").[784] HFPL is defined as "the frequency above the voiceband on a copper loop facility that is being used to carry traditional POTS analog circuit-switched voiceband transmissions."[785] This definition applies whether a BOC's voice customers are served by copper or by digital loop carrier equipment.[786] Competing carriers should have access to the HFPL at either a central office or at a remote terminal.[787] However, the HFPL network element is *only* available on a copper loop facility.[788]

To determine whether a BOC makes line sharing available consistent with FCC rules set out in the *Line Sharing Order*, the FCC examines categories of performance measurements

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[779] *Verizon New Jersey Order* at Appendix C ¶ 49.
[780] *SWBT Texas Order* at ¶ 248; *Bell Atlantic New York Order* at ¶ 269; *Second BellSouth Louisiana Order* at ¶ 185; *Verizon New Jersey Order* at Appendix C ¶ 49.
[781] *Verizon New Jersey Order* at Appendix C ¶ 49.
[782] *Id.*
[783] *Id.*
[784] *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, 20924-27, ¶¶ 20-27 (1999) ("*Line Sharing Order*") (*vacated and remanded*, *USTA v. FCC*); *Verizon New Jersey Order* at Appendix C ¶ 50.
[785] *Id.*
[786] *Id.*
[787] *Id.*
[788] *Deployment of Wireline Services offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order on Reconsideration in CC Docket No. 98-147, Fourth Report and Order on Reconsideration in CC Docket No. 96-98, 16 FCC Rcd 2101, 2106-07, ¶ 10 (2001); *Verizon New Jersey Order* at Appendix C ¶ 50.

identified in the *Bell Atlantic New York Order* and *SWBT Texas Order*.[789] Specifically, a successful BOC applicant could provide evidence of its 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.[790] In addition, 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.[791] On May 24, 2002, the D.C. Circuit Court of Appeals vacated and remanded the *Line Sharing Order* to the FCC.[792]

Section 271(c)(2)(B)(iv) also requires that a BOC demonstrate that it makes line splitting available to competing carriers so that competing carriers may provide voice and data service over a single loop.[793] In addition, a BOC must demonstrate that a competing carrier, either alone or in conjunction with another carrier, is able to replace an existing UNE-P configuration used to provide voice service with an arrangement that enables it to provide voice and data service to a customer.[794] To make such a showing, a BOC must show that it has a legal obligation to provide line splitting through rates, terms, and conditions in interconnection agreements and that it offers competing carriers the ability to order an unbundled xDSL-capable loop terminated to a collocated splitter and DSLAM equipment, and combine it with unbundled switching and shared transport.[795]

3. Summary of the Evidence Before the Commission

Verizon Virginia, Cavalier, WorldCom, Covad, NTELOS, and Allegiance presented evidence concerning unbundled local loops.

Verizon Virginia – Direct Case

Verizon Virginia claimed to offer a full set of unbundled loops, including analog and digital 2-wire and 4-wire loops, which CLECs can use to offer services such as basic exchange telephone service, ISDN, xDSL, DS-1 transmission, DS-3 transmission, Line Sharing and Line

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[789] *Verizon New Jersey Order* at Appendix C ¶ 51.
[790] *Id.*
[791] *Id.*
[792] *USTA v. FCC.*
[793] *Id.* at ¶ 52; *See generally SWBT Texas Order* at ¶¶ 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").
[794] *Verizon New Jersey Order* at Appendix C ¶ 52.
[795] *Id.*; *See SWBT Kansas/Oklahoma Order* at ¶ 220.

Splitting.[796] As of December 2001, Verizon Virginia reported that it had over 155,000 stand-alone loops in service and over 8,200 loops provided as part of UNE-P combinations.[797]

Verizon Virginia claimed that overall, its actual UNE Loop provisioning performance has been good.[798] For example, Verizon Virginia consistently exceeded the parity standard for PR-4-04 - "Percent Missed Appointments - Verizon - Dispatch New Loop" and PR-4-05 - "Percent Missed Appointments - No Dispatch - Platform."[799] Similarly, Verizon Virginia stated that it met or exceeded parity standards for a majority of maintenance and repair performance metrics, such as MR-2-02 - "Network Trouble Report Rate - Loop" and MR-2-03 - "Network Trouble Rate - Central Office."[800] For the November 2001 through January 2002 period, Verizon Virginia's performance in fixing POTS' troubles when promised, surpassed retail parity.[801] Other maintenance and repair performance measures for November 2001 through January 2002 that showed better service to CLECs than Verizon Virginia provided to its retail customers included MR-4-01 - "Mean Time to Repair Total," MR-4-04 - "Percentage Cleared (all troubles) within 24 Hours," and MR-4-08 - "Percent Out of Service >24 Hours."[802] Verizon Virginia's performance in fixing POTS' troubles as measured by MR-5-01 - "Percent Repeat Reports within 30 Days" was below parity with retail.[803] However, Verizon Virginia pointed to flaws in the current metric that were recently addressed by the New York Carrier Working Group.[804] Verizon Virginia maintained that its performance satisfied the metric as revised by the New York Carrier Working Group.[805] Finally, Verizon Virginia contended that KPMG thoroughly tested the systems, processes and methods by which Verizon maintains and repairs loops in Virginia and found that Verizon Virginia satisfied all of the evaluation criteria with respect to maintenance and repair service.[806]

"Hot Cuts" entail the switching of a customer's dial-tone service from Verizon Virginia to a CLEC with minimal disruption in service to the end user.[807] In regards to Hot Cuts, Verizon Virginia stated that it uses the same methods and procedures as are used in Pennsylvania, Massachusetts, and New York.[808] In the test conducted by KPMG, Verizon Virginia satisfied all evaluation criteria regarding the Hot Cut process.[809] Verizon Virginia showed that its

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[796] Exhibit No. 1, at ¶ 127-28.
[797] *Id.* at 130.
[798] Exhibit No. 1, at ¶ 131.
[799] *Id.*
[800] *Id.* at ¶ 134.
[801] *Id.* at ¶ 135.
[802] *Id.* at ¶ 136-37.
[803] *Id.* at ¶ 138.
[804] *Id.*
[805] *Id.*
[806] *Id.* at ¶ 139; *See*, *KPMG Draft Final Report Verizon 1.0 Section VI.*
[807] Exhibit No. 1, at ¶ 140.
[808] *Id.*
[809] *Id.* at ¶ 141; *See*, *KPMG Draft Final Report Verizon 1.0 test points PPR-11-1 through PPR-11-7.*

performance during November 2001 through January 2002, exceeded the benchmarks for PR-9-01 - "Percent on time performance - Hot Cut," and only 0.03% of CLEC Hot Cuts had reported troubles within seven days of installation.[810]

Verizon Virginia claimed to offer the same Digital Loop offerings as Verizon offers in Pennsylvania, Massachusetts, New York, and Connecticut.[811] These offerings utilize the same pre-ordering and ordering processes in these states.[812] Moreover, Verizon Virginia testified that it offered CLECs in Virginia the methods and procedures for provisioning xDSL Loops developed in the New York DSL Collaborative.[813] As to maintenance and repair services, Verizon Virginia's performance from November 2001 through January 2002 has been good.[814] For example, Verizon Virginia exceeded the retail parity standard for MR-3-01 – "Percent Missed Appointment – Loop," MR-3-02 – "Percent Missed Appointment – Central Office," MR-4-02 – "Mean Time to Repair – Loop Trouble," and MR-4-03 – "Mean Time to Repair – Central Office Trouble."[815]

Verizon Virginia stated that it offers Line Sharing in Virginia in accordance with the FCC's *Line Sharing Order*, following the methods and procedures developed in the New York DSL Collaborative.[816] A CLEC may install, own and maintain the splitter in its own collocation arrangement or may have its splitter installed and maintained by Verizon Virginia in Verizon Virginia's central office space.[817] Verizon Virginia claimed that its performance results for November 2001 through January 2002, related to Line Sharing were comparable to the service provided to Verizon Advanced Data, Inc. ("VADI").[818]

Verizon Virginia submitted that it offered Line Splitting, either by using existing UNE offerings or through the Line Splitting-specific OSS capabilities developed in the New York Collaborative.[819] In addition, Verizon Virginia provides CLECs with access to copper distribution sub-loops at its remote terminals.[820]

As in other Verizon states, Verizon Virginia provided access to Unbundled High Capacity Loops, including DS-1s, DS-3s, and other specially designed digital loops.[821] As of the end of 2001, Verizon Virginia had provided over 1,000 Unbundled High Capacity Loops.[822]

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[810] *Id.* at ¶¶ 142-43.
[811] *Id.* at ¶ 145.
[812] *Id.* at ¶¶ 148-56.
[813] *Id.* at ¶ 157.
[814] *Id.* at ¶ 162.
[815] *Id.*
[816] *Id.* at ¶¶ 164-66.
[817] *Id.* at ¶ 168.
[818] *Id.* at ¶¶ 174-77.
[819] *Id.* at ¶¶ 178-86.
[820] *Id.* at ¶ 187.
[821] *Id.* at ¶ 192.
[822] *Id.*

Verizon Virginia affirmed that it will migrate existing high capacity loop facilities to fill a CLEC order, including cross-connecting to a CLEC's collocation arrangement, installing the appropriate high capacity card in spare slots or ports, correcting conditions on existing copper facilities that could affect transmission characteristics, and terminating the High Capacity Loop in the appropriate network interface device ("NID") at the customer's premises.[823]

Finally, Verizon Virginia explained that it offered EEL arrangements in compliance with FCC orders.[824] Verizon Virginia did not provide access to existing EEL combinations unless there was a significant amount of local traffic on those facilities.[825]

Cavalier

Regarding Checklist Item 4, the Cavalier Panel raised issues concerning the provisioning of DS-1 and DS-3 loops and Integrated Digital Loop Carriers ("IDLCs").[826]

Cavalier described that from August 1999 through May 2001 it experienced no problems ordering UNE DS-1 Loops.[827] However, Cavalier complained that in a July 24, 2001, memo Verizon Virginia notified Cavalier of a change in policy that now causes about 39% of its orders to be rejected for "No Facilities."[828] Cavalier stated that when its UNE DS-1 orders are rejected, it may order the DS-1 as special access, which inflates installation times from 18 days to 54 days and significantly increases the cost Cavalier must pay for the facilities.[829]

As to IDLCs, Cavalier asserted that Verizon Virginia has "shut down" its services in situations where Verizon Virginia is serving a customer with IDLC.[830] Cavalier explained that this occurs because such customers have little chance to switch to Cavalier and, if Verizon Virginia does provision the service to such a customer, that service will be noticeably inferior to the services that Verizon Virginia provides.[831] Furthermore, Cavalier claimed that Verizon Virginia informs Cavalier "*on the day of installation*" that it has no facilities often enough to affect "thousands of orders" per year.[832] Cavalier argued that Verizon Virginia's inability to unbundle IDLC systems is discriminatory because Verizon Virginia serves "all customers who request services, and they do so in a matter of days.[833] Cavalier testified that Verizon Virginia will build facilities to serve its own end users, at no additional charge – routinely waiving any

[823] *Id.* at ¶¶ 194-95.
[824] *Id.* at ¶ 201.
[825] *Id.* at ¶¶ 202-07.
[826] Exhibit No. 72, at 29-40.
[827] *Id.* at 29.
[828] *Id.* at 29-30.
[829] *Id.* at 30.
[830] *Id.* at 33.
[831] *Id.*
[832] *Id.* at 34.
[833] *Id.* at 35-36.

extra installation charges.[834] Cavalier asserted that Verizon Virginia fails to tell Cavalier at the time the order is placed, in real time, whether or not the order can be provisioned.[835] Cavalier maintained that such actions harm Cavalier's reputation and interfere with its efforts to serve its customers.[836] Cavalier contended that "multiple switch hosting" is a cost justifiable and technically feasible available solution that would permit the unbundling of IDLC systems.[837] Cavalier stated that as many as one million customers in Virginia may be deprived of a local carrier of competitive choice due to their being served by IDLC.[838]

Finally, Cavalier averred that Verizon Virginia's performance metrics do not measure the volume of orders cancelled for lack of facilities due to IDLC presence.[839] For example, Cavalier pointed out that PR-3-05-02 and –03 capture cancellations "that are being held for eventual facilities. When an order is rejected for 'no facilities ever' this voided order is not reflected in the metrics and is therefore not reported."[840]

WorldCom

As described above, WorldCom witness Freifeld argued that because this Commission could not conduct arbitrations under the Act, and because WorldCom has a pending arbitration case before the FCC to address issues related to Checklist Item 4, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 4 at this time.[841] Mr. Freifeld described the open issues before the FCC related to Checklist Item 4 to include conditions imposed by Verizon Virginia on access to subloops and dark fiber, which makes such access unreasonable, costly, and illusory.[842] For example, Mr. Freifeld complained that Verizon Virginia limits the availability of dark fiber to hard termination points, prohibits splicing altogether as a means of accessing dark fiber, requires collocation in order to access dark fiber, and prohibits WorldCom from accessing dark fiber in manholes or vaults.[843]

Covad

The Covad Panel addressed issues concerning loop conditioning, DSL loops, and loop pre-qualification related to Checklist Item 4.[844]

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[834] *Id.*
[835] *Id.* at 35.
[836] *Id.*
[837] *Id.* at 36-37.
[838] *Id.* at 40.
[839] *Id.* at 34.
[840] *Id.*
[841] Exhibit No. 65 at ¶ 17.
[842] *Id.* at ¶¶ 14-15.
[843] *Id.* at ¶ 15.
[844] Exhibit No. 48, ¶¶ 5-31.

Covad explained that in order to provide DSL services, Verizon Virginia must remove (condition) any electronic signal enhancement and enablers that were placed on the line to support voice service.[845] Covad observed that loop conditioning involves routine maintenance that Verizon Virginia has been performing for over 10 years to support the multitude of services Verizon Virginia provides over loops.[846] Covad described devices that adversely affect DSL service to include: (i) load coils, (ii) bridge taps, and (iii) DLC.[847] Covad pointed out that Verizon Virginia will perform line or station transfers at CLEC expense, for DSL competitors, but will perform such services at no change for retail customers or for purchasers of other UNEs.[848] Covad argued that imposition of such charges on DSL competitors is discriminatory.[849]

Regarding DSL loops, Covad urged the Commission to shorten significantly Verizon Virginia's current outdated business target of provisioning DSL loops within six days.[850] Furthermore, Covad maintained that Verizon Virginia fails its obligation to provide nondiscriminatory access to unbundled loops due to its policy of providing a retail DS-1 access service instead of the UNE DS-1 Loop as requested.[851] Covad offered that Verizon Virginia's willingness to provide DS-1s as retail access, demonstrates that it is technically feasible to provision a loop to support DS-1 digital signals to the address requested by the CLEC.[852] Covad contended that Verizon Virginia "is denying CLECs access to the UNEs to which they are entitled by law and is also engaging in a discriminatory practice of provisioning loops for its retail arm while refusing to do so for requesting carriers."[853]

Covad asserted that Verizon should be required to label, or "tag", all circuits at the demarcation point.[854] Covad explained that this is necessary to ensure that Covad knows the loop is terminated at the customer's premises rather than at a pole or elsewhere, and is able to locate the loop that is being provisioned.[855] Covad pointed out that cooperative testing alone cannot ensure that a loop has been tested for its entire length to the customer's premises.[856]

Moreover, Covad argued that some of the metrics used to measure loop provisioning and maintenance service quality are not representative of actual conditions.[857] Specifically, Covad

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[845] *Id.* at ¶ 5.
[846] *Id.* at ¶ 6.
[847] *Id.* at ¶¶ 7-9.
[848] *Id.* at ¶ 9.
[849] *Id.* at ¶ 10.
[850] *Id.* at ¶ 19.
[851] *Id.* at ¶ 20.
[852] *Id.*
[853] *Id.*
[854] *Id.* at ¶ 23.
[855] *Id.*
[856] *Id*. at ¶ 24.
[857] *Id.* at ¶¶ 26-31.

examined two metrics: PR-6-03 and MR-5-01.[858] Covad maintained that metric PR-6-03 is not a measure of CLEC performance as Verizon Virginia claimed, because it ignores the occasions when Verizon Virginia technicians fail to find a trouble that is actually in Verizon Virginia's network and count the report as a no trouble found condition.[859] Therefore, Covad contended that Verizon Virginia does not adequately capture the rate of repeat trouble reports because it measures only the percent of repeat reported troubles cleared and found to be in its network, which ignores the fact that CLECs must often file numerous reports for the same trouble, before Verizon Virginia can correctly identify the problem in its network.[860] Similarly, as to MR-5-01, Covad argued that not all repeated trouble reports can be explained away as "no access" situations.[861] Covad asserted that many of these no access situations result from Verizon Virginia's own provisioning failures.[862]

Finally, Covad asserted that it is "compelled to submit a manual loop qualification request," for which it has to pay, in situations where errors in LiveWire are discovered in conversations with prospective customers.[863] Covad added that many of the LiveWire reports that it receives show the loop length as either 99-kilofeet or zero feet, both of which are incorrect responses.[864] Covad complained that these false reports cause additional expense and delay in providing services to its customers.[865] Further, Covad asserted that it has been prevented from providing service to well over a thousand customers due to the spectrum compatibility false reports.[866] Covad stated that LiveWire false reports could be reduced by 30%.[867] Covad disputed the KPMG test finding that the pre-qualification results are accurate because KPMG made no attempt to provision a non-qualified LiveWire system reported pair.[868] Consequently, Covad argued that CLECs should not have to pay for loop qualification because of Verizon Virginia's failures and inaccuracies.[869] Instead, Covad recommended that the Commission require Verizon Virginia to correct its database prior to 271 approval and not permit Verizon to assess a manual loop qualification charge for competitors to obtain information that should be available electronically through LiveWire, for which CLECs are assessed a monthly recurring charge for electronic access.[870]

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[858] *Id.*
[859] *Id.* at ¶ 26.
[860] *Id.* at ¶ 27.
[861] *Id.* at ¶¶ 28-30.
[862] *Id.*
[863] *Id.* at ¶ 11.
[864] *Id.* at ¶ 12.
[865] *Id.*
[866] *Id.* at ¶ 13.
[867] *Id.*
[868] *Id.* at ¶ 16.
[869] *Id.* at ¶ 17.
[870] *Id.*

NTELOS

NTELOS witness Goodman testified that Verizon Virginia's placement of fiber facilities, including "lightspan" equipment, makes it much more difficult for CLECs to obtain UNE loops for simple voice service, DSL service, and/or DS-1 Loops.[871] Mr. Goodman observed that Verizon Virginia has chosen to "upgrade" existing plant by placing fiber-fed digital loop carriers in the field, effectively preventing NTELOS or any other CLEC from competing for these customers.[872]

Allegiance

Allegiance filed the testimony of Doreen Best, vice president of LEC management for Allegiance concerning unbundled DS-1 Loops.[873] Ms. Best stated that one of Allegiance's most popular products is an integrated voice/data service provided over a DS-1 facility and that in order to provide that service at a competitive price it must be able to obtain unbundled DS-1 Loops.[874] Ms. Best asserted that between December 2001 and March 2002, Verizon Virginia rejected 22 of 100 unbundled DS-1 orders placed by Allegiance on the basis of "no facilities."[875] Ms. Best explained that Allegiance then ordered the 22 denied UNE Loop facilities as special access circuits at much higher rates.[876]

Ms. Best stated that Verizon Virginia's monthly recurring UNE rate would be $110.61 for the Density Cell 1 DS-1 Loop plus $16.81 for the cross connect and that the special access rate is $198.24 per DS-1.[877] Ms. Best also showed that the nonrecurring rate for a UNE is $72.00 versus $355.00 for a special access circuit.[878] In addition, Ms. Best confirmed that the time required to provision a DS-1 facility to a CLEC customer is lengthened by approximately 30 days when the UNE DS-1 Loop request is first denied for "no facilities," then the UNE DS-1 Loop order is cancelled, and finally the loop is provisioned as a special access circuit.[879]

Ms. Best testified that Verizon Virginia has provided Allegiance and all other CLECs with a list of six reasons, each of which Verizon Virginia maintained constitutes a lack of facilities, which relieves Verizon Virginia of its obligation to provision unbundled DS-1 Loops.[880] The reasons are:

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[871] Exhibit No. 91, at 4.
[872] *Id.*
[873] Exhibit No. 52.
[874] *Id.* at 2.
[875] *Id.*
[876] *Id.*
[877] *Id.* at 3.
[878] *Id.* at 3-4.
[879] *Id.* at 4.
[880] *Id.*

1. There is no repeater shelf in the Central Office or customer location or remote terminal;
2. There is no apparatus/doubler case available;
3. There is a need to place fiber and/or a multiplexer to fulfill the order;
4. There is a need to adjust the multiplexer to increase capacity;
5. There is no riser cable or buried drop wire if a trench or conduit is not provided; and
6. The copper cable is defective, and there are no spares available; Verizon would need to place cable (fiber or copper) for spares.[881]

Ms. Best argued that at least two of these "no facility" circumstances – no repeater shelf, and no apparatus/doubler case - can be remedied without construction.[882] Ms. Best contended that Allegiance is confident that Verizon Virginia does not reject its retail customers for "no facilities."[883] Consequently, Ms. Best asserted that Verizon Virginia's treatment of CLECs' ordering unbundled DS-1 Loops is discriminatory.[884]

Ms. Best maintained that Verizon Virginia's own Attachment 210 lays out inconsistent statements with Verizon Virginia's stated reasons for denying unbundled DS-1 Loops.[885] Ms. Best submitted that Allegiance operates in 36 markets and that no other ILEC denies access to UNEs on such a rigorous basis.[886] Indeed, Ms. Best asserted that Pacific Bell will not reject UNE orders for "no facilities" or for any of the reasons given by Verizon Virginia except for lack of copper lines or defective copper.[887]

Ms. Best testified as to the effect of this issue on Allegiance's ability to compete in Virginia.

> Allegiance is dependent upon Verizon [Virginia] to provide the last mile loop facilities it needs to reach its end users. Verizon [Virginia]'s liberal use of the "no facilities" excuse to avoid providing access to UNE DS1 loops adversely impacts Allegiance's ability to provide timely and cost effective service to end users. This restricted access leaves Allegiance with two choices: either lose the customer or order far more expensive special access facilities.[888]

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[881] *Id.*; Exhibit No. 8, at ¶ 82.
[882] Exhibit No. 52, at 5.
[883] *Id.*
[884] *Id.*
[885] *Id.* at 5-6.
[886] *Id.* at 7.
[887] *Id.*
[888] *Id.* at 7-8.

Finally, Ms. Best observed that Verizon Virginia has indicated that it is evaluating modifying its Special Access Tariff to require a minimum duration of one year prior to allowing conversion of that service to an unbundled DS-1 Loop.[889] Ms. Best argued that such an increase in costs would severely limit the ability of CLECs to offer competitively priced service in Virginia, which ultimately limits the choice of carriers available to the citizens of Virginia.[890]

Verizon Virginia – Reply

In its Reply Declaration, Verizon Virginia argued that the FCC has held that the technological limitation of IDLC does not justify a finding of checklist non-compliance.[891] Verizon Virginia stated that "[t]here simply are no points within the central office building and outside the serving switch where individual voice grade, analog circuits being transported by the integrated system can be disconnected (unbundled) from the switch and re-connected to the CLEC's collocated equipment as a 2-wire analog UNE loop."[892] Verizon Virginia contended that the only issue for § 271 purposes related to IDLC is whether Verizon Virginia has procedures in place that will allow a CLEC to obtain service for its new customer using a different loop, if one is available, and the answer is "yes."[893] Verizon Virginia explained its procedures for processing UNE Loop requests for customers served on IDLC, then added that in such circumstances, "CLECs also have the option of ordering service UNE-Platform or Resale, both of which can be provided to CLECs on loops using IDLC technology."[894] In addition, Verizon Virginia averred that neither Cavalier, nor NTELOS, has used the BFR process in Virginia to attempt to define, evaluate and develop new types of UNE loops that might be used with customers currently served by IDLC loop technology.[895] Further, Verizon Virginia asserted that both IDLC substitutes, 2-wire analog and UDLC loops, "meet the technical transmission characteristics that are included in Verizon's technical reference documents, which are referenced in Cavalier's Interconnection Agreement."[896] Verizon Virginia concluded that the issue of customers served by IDLC is currently being addressed in Verizon Virginia's arbitration case with AT&T at the FCC "and, therefore, should not be part of this proceeding."[897]

Verizon Virginia explained that Covad's complaint about Verizon Virginia's charging for line and station transfers for DSL loops "is misplaced."[898] Verizon argues that the TELRIC rate for a line and station transfer is not comparable to any rates involved in retail offerings.[899]

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[889] *Id.*
[890] *Id.*
[891] Exhibit No. 8, at ¶ 91.
[892] *Id.* at ¶ 92.
[893] *Id.* at ¶ 94.
[894] *Id.* at ¶ 96.
[895] *Id.* at ¶ 97.
[896] *Id.* at ¶ 98.
[897] *Id.*
[898] *Id.* at ¶ 117.
[899] *Id.*

Verizon Virginia asserts that "Covad agreed to such charges and to the swapping process in the amendments to its interconnection agreements."[900]

Replying to Covad's claim about discriminatory pricing when Verizon Virginia performs specialized conditioning of loops over 18,000 feet in length, Verizon stated that, "[a]s permitted by law, Verizon [Virginia] charges CLECs TELRIC-based rates for costs it incurs. The formula for TELRIC compliance does not include a requirement to ensure the CLEC's market based service to its end customer is commercially viable."[901]

In response to Covad's complaint about the poor quality of the LiveWire database, Verizon Virginia asserted that it provides the same pre-order loop information via the same systems as Verizon provides in New York, Massachusetts, Pennsylvania, and Rhode Island, and that the FCC has concluded that each of these states satisfies the requirements of the competitive checklist including the obligation to provide access to loop qualifications information.[902] Moreover, Verizon Virginia contended that the Virginia database is an improved version of the one that the FCC found satisfactory in the New York § 271 Proceeding.[903] Further, Verizon Virginia affirmed that it uses the same database in its own DSL Loop qualifications.[904] Verizon Virginia maintained "it is Covad's business decision to turn customers away rather than to check through a manual qualification what Covad feels are questionable LiveWire results."[905] Verizon Virginia reported that in January 2002, with 12,000 loop qualification requests through LiveWire, there were two requests from all Virginia CLECs combined for manual loop qualifications.[906] Verizon Virginia explained that Covad's complaints about loop lengths of 99,000 feet or zero feet are due to "flags" entered into the LiveWire database to indicate where there were "issues with the initial loop qualification testing" or where initial testing had not been done, and that Covad is "well aware" of these conditions.[907] Moreover, Verizon Virginia testified that the remaining number of such flags is "minimal," and that Verizon Virginia's retail operations also have to contend with this issue when they use the LiveWire database.[908]

Verizon Virginia asserted that Covad offered no data that Verizon Virginia fails to follow its process of tagging DSL loops at the NID and testing cooperatively at the NID.[909]

Verizon Virginia argued that Covad's statement about Verizon Virginia's DSL loop provisioning interval, which Verizon Virginia satisfies, is not a § 271 compliance issue, but should be brought by Covad to the CLEC User Forum for industry consideration."[910]

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[900] *Id.*
[901] *Id.* at ¶ 119.
[902] *Id.* at ¶ 110.
[903] *Id.* at ¶ 111.
[904] *Id.*
[905] *Id.* at ¶ 112.
[906] *Id.*
[907] *Id.* at ¶ 113.
[908] *Id.*
[909] *Id.* at ¶ 127.

Verizon Virginia contended that its policy of disregarding troubles that are not found on Verizon Virginia's network complies with the Carrier-to-Carrier Guidelines in effect in Virginia and all other Verizon East states.[911] Further, Verizon Virginia offered that it "does report troubles not found in the Verizon network – in MR-2-05 (Network Trouble Report Rate – CPE/TOK/FOK) and MR-3-03, (% Missed Appointment CPE/TOK/FOK)."[912] Also, Verizon Virginia stated that Covad's suggestion that it has to file repeated trouble tickets before a Verizon Virginia trouble is found is measured in MR-5-01 (% Repeated Reports with 30 days), and "Verizon [Virginia]'s performance for DSL loops is excellent."[913] For example, Verizon Virginia reported that "for Covad in the November 2001 through January 2002 period, just 13% of the trouble tickets, where trouble was found, were repeat reports where trouble was found in the Verizon network. Less than 2% involved multiple reports closed to 'no trouble found' prior to the repair."[914] Verizon Virginia concluded that its "repair quality as measured by MR-5-01 is reported accurately, is not understated, and is not indicative of poor performance."[915]

4. Discussion

Verizon Virginia claims that it provides CLECs with all of the various types of unbundled loops required by the FCC, including both Line Sharing and Line Splitting.[916] Noting that the FCC's *Line Sharing Order* recently was vacated and remanded in *USTA v. FCC* by the D. C. Circuit, during the hearing, Verizon Virginia committed to continue its current Line Sharing offering.

> And until the uncertainty caused by the further appeals is resolved, we intend to continue to offer line sharing as we are doing today.[917]

Verizon Virginia affirms that it provides unbundled loops using the same process and procedures as Verizon uses in Massachusetts, New York, Pennsylvania, and New Jersey.[918] The FCC found that Verizon's processes and procedures in each of these states met the requirements of § 271 and its rules.[919]

(Continued from previous page)
[910] *Id.* at ¶ 128.
[911] *Id.* at ¶ 129.
[912] *Id.*
[913] *Id.*
[914] *Id.*
[915] *Id.*
[916] Verizon Virginia Brief at 23.
[917] White, Tr. at 829-30; Verizon Brief at 31.
[918] Verizon Brief at 23.
[919] *Id.*; *See*, *e.g.*, *Verizon New Jersey Order* at ¶ 136.

CLECs have raised issues concerning IDLC Loops, xDSL, and high capacity loops. Each issue will be addressed separately below.

IDLC Loops

Cavalier contends that it has no unbundled access to loops served on IDLC.[920] If Cavalier, or another CLEC orders an unbundled loop for a customer served on IDLC, Verizon Virginia makes an LST, transferring the customer to spare copper facilities or universal DLCs and provisions the loop to the CLEC.[921] Verizon Virginia confirms that approximately 24% of its local loops are served on IDLC, but only 1.5% of its local loops are at outside plant terminals where the only type of loop facility is IDLC.[922] Cavalier complained that it often receives notification from Verizon Virginia at the last minute of problems associated with customers served on IDLC, making Cavalier look bad to its customers.[923] Verizon Virginia explained that occasionally when it attempts an LST, it discovers defective facilities and thus cancels the order. Cavalier argues that this indicates that it will continue to have problems with orders like the hundreds it identified in its testimony.[924]

Further, Cavalier argues that Verizon Virginia has been unwilling to implement new technologies to unbundle IDLC loops, which indicates that Verizon Virginia has not satisfied its § 271 requirements.[925] Verizon Virginia responds by accusing Cavalier of failing to submit a BFR "precisely because it commits it financially to sharing any developmental costs to determine the technical feasibility and potential subsequent implementation."[926]

Verizon Virginia has taken steps to increase the level of spare copper and universal DLC within its network. For example, Mr. Albert testified:

> To put that into perspective, that number [1.5%] has been coming down. About two years ago that number was closer to 2 percent, and the reason the number is coming down is because we have a practice, an engineering practice, that we use in Verizon Virginia that when it's time to put more facilities into an outside plant terminal, because we've run out, what we do is when we provide additional facilities, if that terminal previously had only IDLC available type loops, when we put in more, we'll make sure that we also put in either some additional copper cable facilities or some additional universal digital loop carrier facilities.

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[920] Cavalier Brief at 8.
[921] Exhibit No. 8, at ¶ 95.
[922] Albert, Tr. at 739-40.
[923] Exhibit No. 72, at 34.
[924] Cavalier Brief at 8.
[925] *Id.* at 9.
[926] Verizon Virginia Brief at 27.

> We've been using that practice probably since about the middle of '98, and as a result of that, the 1.5 percent of our access lines that I mentioned – that has reduced over the last two years from like around 2 percent.[927]

Based on Verizon Virginia's efforts to increase the level of spare copper and universal DLC within its network, and based on FCC approval of the same unbundling processes and procedures in other Verizon states, I find that Verizon Virginia satisfies its obligation to provide CLECs with unbundled loops when a customer is served by IDLC.

xDSL Loops

On brief, Covad states several concerns regarding xDSL conditioning, xDSL pre-qualification, and xDSL provisioning. Regarding xDSL conditioning, Covad maintains that Verizon Virginia's imposition of LST charges on DSL competitors is discriminatory and fails to meet the requirements of Checklist Item 4.[928] As to xDSL pre-qualification, Covad asserts that if loop qualification information is missing from its LiveWire database, Verizon Virginia should be required to correct its database and provide the information to the requesting carrier expeditiously and without charge.[929] In addition, Covad argues that its loop qualification process discriminates against CLECs, in favor of its retail affiliate.[930] Covad urges the Commission not to permit Verizon Virginia to assess a manual loop qualification charge or an engineering work order charge for competitors to obtain information that should be available through LiveWire as a condition of recommending Verizon Virginia's § 271 application to the FCC.[931] Concerning xDSL provisioning, Covad recommends shortening the provisioning period for xDSL loops from the current six days.[932] Finally, Covad asks the Commission to require Verizon Virginia to offer an end-to-end UNE Loop provisioned over the fiber-fed Next Generation DLC, and the right to request the full set of features and functions supported on the Next Generation DLC platform, as those features and functions become commercially available.[933]

NTELOS joined Covad in regards to DSL pre-qualification.[934] NTELOS highlights its experience in September 2001, when Verizon Virginia failed to pre-qualify eight DSL requests, but eventually provisioned seven of those requests.[935] NTELOS requests that it not be subject to any additional charges if the pre-qualification system incorrectly rejects DSL orders.[936]

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[927] Albert, Tr. at 740-41.
[928] Covad Brief at 5.
[929] *Id.* at 9.
[930] *Id.* at 10.
[931] *Id.* at 13.
[932] *Id.* at 14-16.
[933] *Id.* at 20.
[934] NTELOS at 7-8.
[935] *Id.* at 7; Exhibit No. 91, at 4-5.
[936] NTELOS Brief at 7-8; Clancy, Tr. at 838

Verizon Virginia counters that its retail operations make use of the same pre-qualification database, LiveWire, as CLECs.[937] Verizon Virginia confirms that as of December 2001, LiveWire database included 100% of its central offices.[938] Further, Verizon Virginia is working to develop system enhancements that will automatically search for alternative facilities when a loop comes back as not qualified because of spectrum incompatibility issues.[939] As to Next Generation DLC, Verizon Virginia contends Covad cannot obtain UNEs that are yet unbuilt or part of Verizon Virginia's network, and this specific request may relate to a type of switching that the FCC has not required ILECs to unbundle.[940] Moreover, Verizon Virginia stresses that it employs the same methods and procedures for conditioning, pre-qualifying and provisioning xDSL in Virginia as Verizon uses in other jurisdictions that have received FCC approval.[941]

Furthermore, there appears to be very little manual loop qualification activity in Virginia. A review of Verizon Virginia's carrier-to-carrier performance reports for the three months ended April 2002, shows the number of manual loop qualifications reported for PO-8-01 – "Average Response Time – Manual Loop Qualification" to be three, five, and four, respectively.[942]

Therefore, based on the FCC's approval of the same processes and procedures in other Verizon jurisdictions, the fact that CLECs have access to the same pre-qualification information as Verizon Virginia's retail arms, and the relatively low manual loop qualification activity in Virginia, I find that Verizon Virginia's provisioning of xDSL Loops complies with the requirements of Checklist Item 4.

High Capacity Loops

At the heart of the issues raised by CLECs regarding high capacity loops, including DS-1 and DS-3 Loops, is Verizon Virginia's policy regarding what it considers "additional construction." This policy became more of an issue after Verizon Virginia began applying it rigorously in mid-2001.[943] Verizon Virginia maintains that its policy is consistent with FCC rules that an ILEC is not required to construct new facilities or install additional equipment to provide unbundled DS-1 Loops.[944] In its brief, Allegiance highlights that Verizon Virginia considers lack of facilities in relation to unbundled DS-1 Loops to include: (i) no repeater shelf in the Central Office or customer location or remote terminal, (ii) no apparatus/doubler case available, and (iii) no riser cable or buried drop wire if a trench or conduit is not provided.[945] Indeed, during the hearing Verizon Virginia confirmed that it will deny a CLEC's UNE DS-1 order for "no facilities" even when all that Verizon Virginia must to provide the requested

[937] Verizon Brief at 29.
[938] *Id.* at 30; Exhibit No. 3, Attachment 305; Exhibit No. 8, ¶ 114-15.
[939] *Id.*
[940] Verizon Brief at n.28.
[941] *Id.* at 23, 28-31.
[942] Exhibit No. 12, at Attachment 407.
[943] *See*, Exhibit No. 47.
[944] Exhibit No. 8, at ¶ 79.
[945] Allegiance Brief at 2; Exhibit No. 52, at 4.

service is open a cable sheath to splice existing pairs into an existing apparatus case.[946] Allegiance asserts Verizon Virginia "routinely undertakes such minor upgrades to make DS-1s available to its retail end users."[947] Allegiance also claims that Verizon stands alone among BOCs in regards to its no-facilities policy.[948] For example, Allegiance reports that in May 2002, Verizon rejected 23% of Allegiance's UNE DS-1 orders, whereas all other BOCs combined rejected only 3% of Allegiance's UNE DS-1 orders during the same period.[949]

The Virginia metrics Guidelines and the New Guidelines do not measure the number of UNE-DS-1 orders turned back for no facilities. However, Verizon Virginia witness Nogay testified that according to Verizon Virginia's own studies, between 10% and 30% of all UNE high capacity loop orders are turned back for no facilities.[950]

CLECs complain that under Verizon Virginia's policies, they are required to follow an arduous and expensive three-step process to obtain unbundled DS-1 Loops.[951] First, the CLEC orders UNE DS-1 and has its order rejected for no facilities.[952] The CLEC then must order the DS-1 facility as special access, at a significantly higher cost.[953] Finally, the CLEC then converts the special access to a UNE DS-1 Loop.[954] Cavalier estimates that the normal interval to provision a UNE DS-1 Loop order is 18 days, while the three-step process takes 54 days.[955] Indeed, NTELOS suggests that Verizon Virginia institute a special process whereby CLECs can indicate on their orders that if facilities are not available for a UNE DS-1, Verizon Virginia should automatically convert the order to special access and automatically convert it back to UNE DS-1 as soon as the UNE DS-1 becomes an option.[956] As Allegiance witness Best testified, changing a UNE DS-1 order into a special access DS-1 order increases the nonrecurring charge from $72.00 to $355.00 and increases monthly costs from $127.42 to $198.24.[957]

On brief, Verizon Virginia insists that in the *Verizon New Jersey Order*, the FCC "flatly rejected" Allegiance's complaint regarding Verizon Virginia's no construction policy.[958] Specifically, the FCC found:

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[946] Nogay, Tr. at 819, 822.
[947] Allegiance Brief at 3.
[948] *Id.* at 2.
[949] *Id.*; Exhibit No. 52, at 7; Best, Tr. at 933.
[950] Nogay, Tr. at 824-25.
[951] Cavalier Brief at 6-7; AT&T Brief at 82; Allegiance Brief at 4-5.
[952] *Id.*
[953] *Id.*
[954] *Id.*
[955] Exhibit No. 37.
[956] NTELOS Brief at 5.
[957] Exhibit No. 52, at 3-4. The $127.42 amount is based on the Density Cell 1 DS-1 Loop rate of $110.61 plus the cross connect charge of $16.81.
[958] Verizon Brief at 33.

> XO and Allegiance also argue that Verizon rejects competitive LEC UNE orders under its "no facilities" policy when any "necessary" facilities are Unavailable. Verizon explains that it provides unbundled high capacity loops where facilities are available, and that it will also provide competitive LECs with unbundled high capacity loops where not all necessary facilities are available, but the central office common equipment and equipment at the end user's location necessary to create a high capacity loop can be accessed. This is the same policy the [FCC] found not to expressly violate the [FCC's] unbundling rules in our Verizon Pennsylvania Order.[959]

Moreover, Verizon Virginia points out that the FCC is currently reviewing ILECs' obligation to provide unbundled network elements, including the question of the precise extent to which ILECs are required to modify their existing networks to provide access to network elements.[960] According to Verizon Virginia that is the proper venue for issues like those raised regarding no facilities for UNE DS-1.[961]

Based on the *Verizon New Jersey Order*, Verizon Virginia's "no facilities" policy is compliant with FCC rules and thus, I find that Verizon Virginia's provision of high capacity loops meets the requirements of Checklist Item 4.

However, I find that to fulfill our consulting role the Commission should advise the FCC that Verizon Virginia's policy has a significant and adverse effect on competition in Virginia, is inconsistently applied across UNEs, is at odds with industry accounting rules, and is inconsistent with TELRIC-pricing principles.

From November 2001 through March 2002, Verizon Virginia confirmed orders for UNE DS-1s that if provisioned, would have provided the equivalent capacity of 117,240 voice grade circuits.[962] Cavalier calculates its UNE DS-1 rejection rate to be 39%.[963] To put this level of activity in perspective, during this same five-month period, Verizon Virginia reported actual

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[959] *Verizon New Jersey Order* at ¶ 151 (footnotes omitted).
[960] Verizon Virginia Brief at 33; *See*, Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers; Implementation of the Local Competition Provisions of the Telecommunications Act of 1996; Development of Wireline Services Offering Advanced Telecommunications Capability*, 16 FCC Rcd 22781, ¶ 63 (2001).
[961] Verizon Virginia Brief at 33-34.
[962] Derived from CLEC orders reported for the five-month period for OR-1-04-3211, per Exhibit No. 101, at Appendix E-21; OR-1-06-3211, per Exhibit No. 101, at Appendix E-23; and OR-1-08-3211, per Exhibit No. 101, at Appendix E-25. CLEC orders for < 6 lines were counted as one DS-1, while CLEC orders for >= 6 were counted as 6 DS-1s. The total number of DS-1s was multiplied by 24 to determine equivalent voice grade circuits.
[963] Exhibit No. 37.

access line growth for CLECs in Virginia to be 116,652.[964] These calculations indicate that UNE DS-1 Loops are significant to competition in Virginia. Furthermore, Cavalier and Allegiance demonstrate that denied access to UNE DS-1s hurt their ability to compete as this increases both the time and cost to provide service. I note that Case Nos. PUC-2001-00166 and PUC-2001-00176 concerned complaints by Broadslate Networks of Virginia, Inc., and 360 Communications Company of Charlottesville d/b/a ALLTEL regarding the provisioning of high capacity loops. While these complaints were withdrawn, it is significant that neither company operates as CLECs in Virginia today.

In addition, Verizon Virginia's application of what it considers construction appears to be inconsistently applied across UNEs. For example, during the hearing, Verizon Virginia confirmed that for UNE Loops, Verizon Virginia would provision the loop to a CLEC even if it is necessary for Verizon Virginia to add a new drop to a new home.[965] This appears to be at odds with its strictly enforced policy for UNE DS-1 Loops. In addition, Verizon Virginia stated that it would make cable pairs available through line station transfers, but following its "no construction" policy, Verizon Virginia will not splice any of those available pairs into existing repeater cases.[966]

Verizon Virginia's classification of opening a cable sheath to splice existing cable pairs into an existing apparatus case as construction for purposes of UNE DS-1 Loops is in conflict with the FCC's established accounting rules. Specifically, 47 C.F.R. § 32.5999(b)(3) states:

> The Plant Specific Operations Expense accounts shall include the cost of . . . replacing items of plant other than retirement units; rearranging and changing the location of plant not retired . . . .

Thus, from an accounting perspective, the rearrangement of existing facilities, such as opening a cable sheath to splice existing cable pairs into an existing apparatus case should be accounted for as an expense and not as a capital item. Likewise, from an unbundling perspective, such rearrangements should not be treated as construction. Verizon Virginia offered no testimony reconciling accounting and unbundling treatment of these activities. For example, Verizon Virginia's Loops Panel could not address the application of the FCC accounting rules in regards to the rearrangement of existing facilities.[967]

Finally, TELRIC pricing models, at least as applied by this Commission, include growth and fill factors.[968] Such models are based on a fundamental assumption that the ILEC's network will grow to meet forecasted demand in Virginia. Fill factors reflect that a certain level of spare plant will continuously remain available to meet demand, and the costs associated with this plant

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[964] Derived from subtracting the October 2001 Total Competitive Lines, per Exhibit No. 54, from the March 2002 Total Competitive Lines, per Exhibit No. 54.
[965] Nogay, Tr. at 829.
[966] Verizon Virginia's Loops Panel, Tr. at 818-19; Exhibit No. 47.
[967] Verizon Virginia's Loops Panel, Tr. at 827.
[968] *See*, *Virginia Pricing Case* at 226-29.

are included in the TELRIC-based rates. Verizon Virginia's "no facilities" policy appears at odds with the development of TELRIC models because it appears to adopt a short-run assumption that no new plant is constructed to meet demand from CLECs. In other words, high capacity facilities are provided only when spares happen to be available to fill CLEC orders.

5. Conclusion

Based on the record and applicable FCC precedent, I find that Verizon Virginia provides local loop transmission from the central office to the customer's premises, unbundled from local switching or other services in accordance with the requirements of Checklist Item 4. However, Verizon Virginia's "no facilities" policy should be revised to require rearrangement and connection of existing facilities for all CLEC UNE Loop orders. Furthermore, the FCC should analyze and adjust its TELRIC pricing models to be consistent with the implemented "no facilities" policy.

E. Checklist Item 5 – Unbundled Local Transport

Section 271(c)(2)(B)(v) requires Verizon Virginia to provide "[l]ocal transport from the trunk side of a wireline local exchange carrier switch unbundled from switching or other services."

1. Description

The FCC has required that BOCs provide both dedicated and shared transport to requesting carriers.[969] 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.[970] Shared transport consists of transmission facilities shared by more than one carrier, including the BOC, between end office switches, between end office switches and tandem switches, and between tandem switches, in the BOC's network.[971]

2. Standard of Review

A BOC has the following obligations with respect to dedicated transport: (i) provide unbundled access to dedicated transmission facilities between BOC central offices or between such offices and serving wire centers ("SWCs"); between SWCs and interexchange carriers points of presence ("POPs"); between tandem switches and SWCs, end offices or tandems of the BOC, and the wire centers of BOCs and requesting carriers; (ii) provide all technically feasible transmission capabilities such as DS1, DS3, and Optical Carrier levels that the competing carrier could use to provide telecommunications; (iii) not limit the facilities to which dedicated interoffice transport facilities are connected, provided such interconnections are technically

[969] *Second BellSouth Louisiana Order* at ¶ 201; *Verizon New Jersey Order* at Appendix C ¶ 53.
[970] *Id.*
[971] *Second BellSouth Louisiana Order* at n.650; *Verizon New Jersey Order* at Appendix C ¶ 53.

feasible, or restrict the use of unbundled transport facilities; and (iv) to the extent technically feasible, provide requesting carriers with access to digital cross-connect system functionality in the same manner that the BOC offers such capabilities to interexchange carriers that purchase transport services.[972]

The FCC also found that a BOC has the following obligations with respect to shared transport: (i) provide shared transport in a way that enables the traffic of requesting carriers to be carried on the same transport facilities that a BOC uses for its own traffic; (ii) provide shared transport transmission facilities between end office switches, between its end office and tandem switches, and between tandem switches in its network; (iii) permit requesting carriers that purchase unbundled shared transport and unbundled switching to use the same routing table that is resident in the BOC's switch; and (iv) permit requesting carriers to use shared (or dedicated) transport as an unbundled element to carry originating access traffic from, and terminating traffic to, customers to whom the requesting carrier is also providing local exchange service.[973]

3. Summary of the Evidence Before the Commission

Verizon Virginia, Cavalier, WorldCom, and OpenBand presented evidence concerning unbundled local transport.

Verizon Virginia – Direct Case

Verizon Virginia claimed that as in Pennsylvania and New York, it provides nondiscriminatory access to all technically feasible transmission capabilities, including dedicated and shared transport facilities and associated functionalities.[974] Dedicated interoffice facility ("IOF") transport gives CLECs exclusive use of IOF such as DS-1, DS-3, STS-1, OC-3, and OC-12.[975] Verizon Virginia stated that it rejects CLEC orders for IOF if suitable facilities are not available.[976] However, in situations where IOFs are not available, but Verizon Virginia has new construction planned or underway, Verizon Virginia will present the CLEC a due date that includes the estimated construction interval, plus the standard provisioning interval.[977] For the three months ended January 2002, Verizon Virginia completed all 22 IOF orders by the commitment date.[978]

Verizon Virginia granted CLECs access to shared transport, which is the use of multiple interoffice transmission paths over non-dedicated facilities.[979] Verizon Virginia maintained that

[972] *Second BellSouth Louisiana Order* at ¶ 201; *Verizon New Jersey Order* at n.762.
[973] *Second BellSouth Louisiana Order* at n.652; *Verizon New Jersey Order* at n.763.
[974] Exhibit No. 1, at ¶¶ 210-11.
[975] *Id.* ¶¶ 212-17.
[976] *Id.* at ¶ 218.
[977] *Id.*
[978] *Id.* at ¶ 220.
[979] *Id.* at ¶ 221.

CLECs that purchase unbundled switching have purchased shared transport.[980] Through December 2001, Verizon Virginia was providing shared transport to and from approximately 8,250 unbundled local switching ports provisioned to CLECs.[981]

Verizon Virginia offered unbundled dark fiber available to CLECs pursuant to the FCC's *UNE Remand Order*.[982] Furthermore, Verizon Virginia maintained that its methods and procedures related to unbundled dark fiber are "similar to those in effect for the provision of unbundled dark fiber by Verizon in Pennsylvania and New York."[983] Verizon Virginia stated that it provisioned six unbundled dark fiber orders for the three months ending January 2002.[984]

Cavalier

The Cavalier Panel questioned Verizon Virginia's provisioning of dark fiber.[985] In this regard, Cavalier argued that Verizon Virginia's process by which it offers access to UNE dark fiber, is designed to thwart reasonable access, delay competitive entry, and force Cavalier to incur excess costs in order to maintain connectivity and service to its customers.[986] Cavalier contended that Verizon Virginia's process requires it to submit inquiries for every possible combination of connectivity for all central offices in a region.[987] Instead, Cavalier submitted that it should be able to specify its desired path.[988] Cavalier complained that Verizon Virginia provides it with over-complicated maps, which are "very expensive" for Cavalier to use for specifying the path where it wants to use the dark fiber.[989] Furthermore, Cavalier explained that Verizon Virginia's process requires it to get CFA or port assignments before it can order dark fiber.[990] Because there is a 113-day interval for obtaining CFAs, Cavalier avowed that the required dark fiber may no longer be available.[991] Cavalier argued that Verizon Virginia's instructions on what to do about this are ineffective, and though Verizon has been working with Cavalier to address these problems in other states, it has not provided such assistance in Virginia.[992]

WorldCom

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[980] *Id.* at ¶ 223.
[981] *Id.*
[982] *Id.* at ¶ 224; *UNE Remand Order* at ¶¶ 325-30.
[983] Exhibit No. 1, at ¶ 224.
[984] *Id.*
[985] Exhibit No. 72, at 57-59.
[986] *Id.* at 57.
[987] *Id.*
[988] *Id.*
[989] *Id.* at 58.
[990] *Id.*
[991] *Id.*
[992] *Id.* at 59.

As described above, WorldCom witness Freifeld advised this Commission that WorldCom has an arbitration pending before the FCC, which has open issues related to some of the competitive Checklist Items.[993] Pending issues related to Checklist Item 5 include Verizon Virginia's failure to provide: (i) the multiplexing feature of unbundled transport upon request, (ii) the functionality of its digital cross-connect systems in the same manner that it provides such functionality to interexchange carriers, and (iii) unbundled dedicated transport to be used in conjunction with facilities purchased out of tariffs.[994] Mr. Freifeld advised that until the FCC issues its ruling in WorldCom's arbitration case, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 5.[995]

OpenBand

OpenBand witness Walker urged the Commission to ensure that competitive providers like OpenBand have full access to Verizon Virginia's interoffice transport facilities on an unbundled basis.[996] Mr. Walker asked the Commission to prohibit Verizon Virginia from limiting access to such facilities that would preclude or impair facilities-based, broadband providers like OpenBand from continuing to offer its services.[997]

Mr. Walker presented two major issues (*i.e.*, termination and information) that prevent OpenBand from acquiring dark fiber transport from Verizon Virginia.[998] Mr. Walker defined the "termination issue" to include situations where Verizon Virginia refuses to provide dark fiber facilities "that have been left un-terminated (or at some other stage of installation that leaves the fiber one simple step away from use)."[999] Mr. Walker contended that Verizon Virginia's refusal to provide access to currently un-terminated dark fiber is a misinterpretation of the FCC's *UNE Remand Order* that the Texas PUC flatly rejected.[1000] Mr. Walker urged the Commission to "use this proceeding to reject a termination requirement or any other similar impediment to the availability of dark fiber and adopt clear guidelines like those created by the Texas PUC."[1001]

As to the "information issue," Mr. Walker asserted that Verizon Virginia refuses to provide timely, usable information on the location of dark fiber in their network.[1002] Mr. Walker maintained that when Verizon Virginia says there is no dark fiber available between two locations, "there is no way for the competitor to question or confirm Verizon [Virginia]'s determination."[1003] Moreover, Mr. Walker complained that Verizon Virginia does not disclose

[993] Exhibit No. 65.
[994] *Id.* at ¶ 19.
[995] *Id.* at ¶¶ 20-21.
[996] Exhibit No. 64, at ¶ 8.
[997] *Id.*
[998] *Id.* at ¶¶ 9-25.
[999] *Id.* at ¶ 12.
[1000] *Id.* at ¶¶ 13-17.
[1001] *Id.* at ¶ 19.
[1002] *Id.* at ¶ 20.
[1003] *Id.* at ¶ 21.

whether there is dark fiber available on an alternative route between the same two locations.[1004] Mr. Walker discussed decisions on this issue by the Texas and Maine commissions, which required the BOC to provide information to CLECs that shows the location of dark fiber facilities.[1005] Mr. Walker urged the Commission to adopt the requirements imposed in Texas, or at a minimum, the requirements imposed by Maine.[1006]

Verizon Virginia – Reply

In its Reply Checklist Declaration, Verizon Virginia stated that WorldCom has raised a number of issues that are currently awaiting decision by the FCC in the arbitration case.[1007] Nonetheless, Verizon Virginia advised that such arbitations do not preclude this Commission from gathering information for its consultative report to the FCC on Verizon Virginia's § 271 application.[1008]

In addition, Verizon Virginia asserted that OpenBand's testimony should be given no weight, since OpenBand has no experience with Verizon Virginia's dark fiber practices and procedures in Virginia.[1009] Verizon Virginia stated that it has no obligation "to provide dark fiber in Virginia in accordance with any dark fiber" offerings in Maine or rulings by the Texas PUC.[1010] Rather, Verizon Virginia advised that its only obligation is to "provide nondiscriminatory access to dark fiber in Virginia solely in accordance and compliance with the requirements of the Act and the FCC's *UNE Remand Order,* which it is doing."[1011] Verizon Virginia maintained that the "FCC found Verizon's transport offerings, including dark fiber, in Pennsylvania to be in compliance with its Checklist requirements," and that its offerings in Virginia are the same.[1012]

Verizon Virginia contended that both OpenBand and Cavalier have interconnection agreements with Verizon Virginia that specify the terms and conditions for UNE dark fiber, and the "appropriate means" to address "the unique terms and conditions they seek regarding the availability of dark fiber information is through the interconnection agreement negotiation process."[1013]

In response to Cavalier's complaint concerning the "unnecessarily lengthy process" of ordering dark fiber, Verizon Virginia explained that it is now conducting a trial of "parallel

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[1004] *Id.*
[1005] *Id.* at ¶¶ 22-24.
[1006] *Id.* at ¶ 25.
[1007] Exhibit No. 8, at ¶ 142.
[1008] *Id.* at ¶ 144.
[1009] *Id.* at ¶ 146.
[1010] *Id.*
[1011] *Id.*
[1012] *Id.* at ¶ 147.
[1013] *Id.* at ¶ 148.

provisioning" to shorten that process.[1014] Verizon Virginia confirmed that it has agreed with Cavalier to amend its interconnection agreement at the end of the trial, "to reflect the availability of the parallel provisioning option," and the "new provisioning option will be offered to other carriers through interconnection agreement amendments, as necessary."[1015]

Verizon Virginia argued that OpenBand's claim concerning unterminated dark fiber "goes beyond the requirements of the FCC's *UNE Remand Order*."[1016] Verizon Virginia asserted that unterminated dark fiber is not "easily called into service and readily available after marginal work," and concluded that because construction would be necessary to terminate these fibers, they "are not available to CLECs as unbundled dark fiber."[1017]

4. Discussion

Access to dark fiber was the only issue raised by CLECs concerning unbundled local transport. Verizon Virginia contends that its established methods and procedures to provide CLECs with unbundled access to dark fiber are in accordance with the FCC's *UNE Remand Order* and are similar to those the FCC reviewed in approving Verizon's applications in Pennsylvania, New York, Connecticut, and Vermont.[1018]

On brief, Cavalier provides five reasons why Verizon Virginia fails Checklist Item 5, describing Verizon Virginia's procedures as "a problematic, delay-ridden, needlessly complex, needlessly expensive, and eminently manipulable process to play "hide the ball" with dark fiber."[1019] First, Cavalier claims Verizon Virginia admits that it has failed to filled any of Cavalier's orders to provide dark fiber to customer premises in Virginia.[1020] Second, Cavalier maintains that as in Pennsylvania, Verizon Virginia waited until it filed for § 271 before offering Cavalier a more workable process.[1021] Third, Cavalier accuses Verizon Virginia of refusing to let Cavalier participate in field inspections it requests to test whether dark fiber is available.[1022] Fourth, Cavalier points out that unlike in Rhode Island and other Verizon states, Verizon Virginia requires Cavalier to collocate in intermediate central offices.[1023] Finally, Cavalier asserts that Verizon Virginia admits that its definition of when dark fiber is "terminated," and thus available for unbundling, is a "blurry, ill defined term."[1024]

[1014] *Id.* at ¶¶ 154-55.
[1015] *Id.* at ¶ 156.
[1016] *Id.* at ¶ 157.
[1017] *Id.* at ¶ 159.
[1018] Verizon Virginia Brief at 35.
[1019] Cavalier Brief at 15.
[1020] *Id.* at 13; Albert, Tr. at 161.
[1021] Cavalier Brief at 13-14.
[1022] *Id.* at 14; Albert, Tr. at 165.
[1023] Cavalier Brief at 14; Shockett, Tr. at 160-61.
[1024] Cavalier Brief at 14; Verizon Virginia's Transport Panel, Tr. at 177.

In its brief, AT&T characterized Verizon Virginia's process for unbundling dark fiber as broken, as it is elsewhere.[1025]

In its brief, OpenBand stressed that different states have successfully required BOCs, including Verizon, to improve upon their dark fiber offerings.[1026] For example, OpenBand points to Texas, which rejected a "termination" requirement similar to the one used by Verizon Virginia.[1027] OpenBand concludes that if competition in the area of "smart neighborhoods" or "wired communities" is to be realized in Virginia, providers like OpenBand must have ready access to dark fiber on terms and conditions similar to those established in Texas, Massachusetts, and Maine.[1028]

Verizon Virginia argues that its dark fiber offering in Virginia is substantially the same as Verizon's offering in Pennsylvania, which received FCC approval.[1029] Verizon Virginia contends state decisions such as Maine's do not expand the requirements of the Act or the FCC's orders interpreting the Act.[1030] Nonetheless, Verizon Virginia asserts that it goes beyond the requirements of the Act in Virginia and is willing to work with CLECs on large building projects to provide more information on the location of interoffice fiber spans within a geographic area.[1031] It also has trials under way with Cavalier to permit the simultaneous ordering of dark fiber and collocation.[1032]

There appears to be no real debate concerning whether Verizon Virginia's processes and procedures for unbundling dark fiber are compliant with the Act. Rather, the CLECs urge the Commission to move beyond what is required by the Act. Consequently, I find that Verizon Virginia's dark fiber offering satisfies the requirements of Checklist Item 5.

5. Conclusion

I find that Verizon Virginia provides local transport from the trunk side of a wireline local exchange carrier switch unbundled from switching or other services in accordance with Checklist Item 5.

F. Checklist Item 6 – Unbundled Local Switching

Section 271(c)(2)(B)(vi) requires Verizon Virginia to provide "[l]ocal switching unbundled from transport, local loop transmission, or other services."

[1025] AT&T Brief at 81.
[1026] OpenBand Brief at 5.
[1027] *Id.* at 7.
[1028] *Id.* at 9-10.
[1029] Verizon Virginia Brief at 36.
[1030] *Id.*
[1031] *Id.*; Albert, Tr. at 146, 187-89; Exhibit No. 8, ¶ 155.
[1032] *Id.*

1. Description

A switch connects end user lines to other end user lines, and connects end user lines to trunks used for transporting a call to another central office or to a long-distance carrier.[1033] Switches can also provide end users with "vertical features" such as call waiting, call forwarding, and caller ID, and can direct a call to a specific trunk, such as to a competing carrier's operator services.[1034]

2. Standard of Review

In the *Second BellSouth Louisiana Order*, the Commission required BellSouth to provide unbundled local switching that included line-side and trunk-side facilities, plus the features, functions, and capabilities of the switch.[1035] The features, functions, and capabilities of the switch include the basic switching function as well as the same basic capabilities that are available to the incumbent LEC's customers.[1036] Additionally, local switching includes all vertical features the switch is capable of providing, as well as any technically feasible customized routing functions.[1037]

Moreover, in the *Second BellSouth Louisiana Order*, the FCC required BellSouth to permit competing carriers to purchase UNEs, including unbundled switching, in a manner that permits a competing carrier to offer, and bill for, exchange access and the termination of local traffic.[1038] In addition, the FCC stated that measuring daily customer usage for billing purposes requires essentially the same OSS functions for both competing carriers and incumbent LECs, and that a BOC must demonstrate that it is providing equivalent access to billing information.[1039] Therefore, the ability of a BOC to provide billing information necessary for a competitive LEC to bill for exchange access and termination of local traffic is an aspect of unbundled local switching.[1040] Thus, there is an overlap between the provision of unbundled local switching and the provision of the OSS billing function.[1041]

To comply with the requirements of unbundled local switching, a BOC must also make available trunk ports on a shared basis and routing tables resident in the BOC's switch, as necessary to provide access to shared transport functionality.[1042] In addition, a BOC may not limit the ability of competitors to use unbundled local switching to provide exchange access by

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[1033] *Verizon New Jersey Order* at n.764.
[1034] *Id.*
[1035] *Second BellSouth Louisiana Order* at ¶ 207; *Verizon New Jersey Order* at Appendix C ¶ 54.
[1036] *Id*.
[1037] *Id.*
[1038] *Second BellSouth Louisiana Order* at ¶ 208; *Verizon New Jersey Order* at Appendix C ¶ 55.
[1039] *Id.*; *Ameritech Michigan Order* at ¶ 140.
[1040] *Second BellSouth Louisiana Order* at ¶ 208; *Verizon New Jersey Order* at Appendix C ¶ 55.
[1041] *Id.*
[1042] *Ameritech Michigan Order* at ¶ 306; *Second BellSouth Louisiana Order* at ¶ 209; *Verizon New Jersey Order* at Appendix C ¶ 56.

requiring competing carriers to purchase a dedicated trunk from an interexchange carrier's POP to a dedicated trunk port on the local switch.[1043]

3. Summary of the Evidence Before the Commission

Verizon Virginia and WorldCom presented evidence concerning unbundled local switching.

Verizon Virginia – Direct Case

Verizon Virginia asserted that it provides nondiscriminatory access to UNE local switching, including features, functions and capabilities of the switch, using the same processes and procedures used by Verizon in Pennsylvania.[1044] Verizon Virginia contended that its interconnection agreements with CLECs include specific terms and conditions that require it to provide access to line-side and trunk-side facilities of the local switch, basic switching functions, trunk ports and a shared basis, tandem switching, vertical switch features, customized routing, and usage information to bill for inter/intraLATA exchange access.[1045] In addition, Verizon Virginia provides CLECs with UNE-P, which includes both an unbundled local switching element and an unbundled local loop network element.[1046]

Verizon Virginia maintained that in establishing unbundled local switching, CLECs may ask for calls to be routed exactly the same way Verizon Virginia routes its own calls, or may request customized routing.[1047] Verizon Virginia affirmed that it provisioned CLEC UNE switching with the same personnel, facilities and equipment as it used for its own retail orders.[1048] Verizon Virginia declared that it provided CLECs purchasing unbundled local and tandem switching elements with the data necessary to bill exchange access charges to IXCs and suppressed its own exchange access billing.[1049]

As of December 2001, Verizon Virginia provided more than 8,200 (*i.e.*, 2,400 business and 5,800 residential) line side local switching ports as part of UNE-P.[1050] Moreover, as of December 2001, Verizon Virginia had not received any requests for unbundled tandem switching on a stand-alone basis.[1051]

[1043] *Ameritech Michigan Order* at ¶¶ 324-25; *Second BellSouth Louisiana Order* at ¶ 209; *Verizon New Jersey Order* at Appendix C ¶ 56.
[1044] Exhibit No. 1, at ¶ 228.
[1045] *Id.* at ¶ 229.
[1046] *Id.* at ¶¶ 235-36.
[1047] *Id.* at ¶¶ 240-41.
[1048] *Id.* at ¶ 243.
[1049] *Id.*
[1050] *Id.* at ¶ 244.
[1051] *Id.* at ¶ 246.

WorldCom

As described above, WorldCom witness Freifeld advised this Commission that WorldCom has an arbitration pending before the FCC, which has open issues related to some of the competitive Checklist Items.[1052] Pending in this arbitration is whether Verizon Virginia correctly interprets the FCC's "switching exception" such that it will not provide unbundled switching whenever there is a customer with a single line in Density Zone 1 who has three or more other locations somewhere within the same LATA.[1053] Mr. Freifeld advised that because of this open issue, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 6.[1054]

4. Discussion

The only issue related to unbundled local switching is WorldCom's FCC's arbitration issue, which is dealt with in the Discussion section of Checklist Item 1. Verizon Virginia contends that its processes and procedures concerning unbundled local switching are the same as those the FCC found to meet the requirements of the Act in Pennsylvania.[1055]

5. Conclusion

Based on the record, I find that Verizon Virginia provides local switching unbundled from transport, local loop transmission, or other services in accordance with the requirements of Checklist Item 6.

G. Checklist Item 7 – 911, E-911, Directory Assistance, Operator Calls

Section 271(c)(2)(B)(vii) requires Verizon Virginia to provide "[n]ondiscriminatory access to: (I) 911, E-911; (II) directory assistance services to allow the other carrier's customers to obtain telephone numbers; and (III) operator call completion services."

1. Description

911 and E-911 services transmit calls from end users to emergency personnel.[1056] The FCC has found that it is critical that a BOC provide competing carriers with accurate and nondiscriminatory access to 911/E-911 services so that these carriers' customers are able to reach emergency assistance.[1057] Customers use directory assistance and operator services to obtain customer listing information and other call completion services.[1058]

[1052] Exhibit No. 65.
[1053] *Id.* at ¶ 23.
[1054] *Id.* at ¶ 24.
[1055] Verizon Virginia Brief at 38.
[1056] *Verizon New Jersey Order* at n.774.
[1057] *Id.*
[1058] *Id.*

2. Standard of Review

In the *Ameritech Michigan Order*, the FCC found that "section 271 requires a BOC to provide competitors access to its 911 and E-911 services in the same manner that a BOC obtains such access, *i.e.*, at parity."[1059] Specifically, the FCC 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."[1060] 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."[1061]

Section 271(c)(2)(B)(vii)(II) and § 271(c)(2)(B)(vii)(III) require a BOC to provide nondiscriminatory access to "directory assistance services to allow the other carrier's customers to obtain telephone numbers" and "operator call completion services," respectively.[1062] 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."[1063] While both §§ 251(b)(3) and 271(c)(2)(B)(vii)(II) refer to nondiscriminatory access to "directory assistance," § 251(b)(3) refers to nondiscriminatory access to "operator services," while § 271(c)(2)(B)(vii)(III) refers to nondiscriminatory access to "operator call completion services."[1064] The term "operator call completion services" is not defined in the Act, nor has the FCC previously defined the term.[1065] However, for § 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."[1066] In the same order, the FCC 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 and completion of a telephone call.[1067] All of these services may be needed or used to place a call.[1068] For example, if a customer tries to direct dial a telephone number and constantly

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[1059] *Ameritech Michigan Order* at ¶ 256; *Verizon New Jersey Order* at Appendix C ¶ 57.
[1060] *Id.*
[1061] *Id.*
[1062] 47 U.S.C. §§ 271(c)(2)(B)(vii)(II), (III); *Verizon New Jersey Order* at Appendix C ¶ 57.
[1063] 47 U.S.C. § 251(b)(3); *Verizon New Jersey Order* at Appendix C ¶ 57. The Commission implemented section 251(b)(3) in *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 sub nom. 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.*, 525 U.S. 366 (1999); 47 C.F.R. § 51.217.
[1064] 47 U.S.C. §§ 251(b)(3), 271(c)(2)(B)(vii)(III); *Verizon New Jersey Order* at n.780.
[1065] *Verizon New Jersey Order* at n.780.
[1066] *Local Competition Second Report and Order* at ¶ 110; *Verizon New Jersey Order* at n.780.
[1067] *Local Competition Second Report and Order* at ¶ 111; *Verizon New Jersey Order* at n.780.
[1068] *Verizon New Jersey Order* at n.780.

receives a busy signal, the customer may contact the operator to attempt to complete the call.[1069] 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 FCC 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."[1070] As a result, the FCC uses the nondiscriminatory standards established for operator services to determine whether nondiscriminatory access is provided.[1071] That is, a BOC must be in compliance with the regulations implementing § 251(b)(3) to satisfy the requirements of §§ 271(c)(2)(B)(vii)(II) and 271(c)(2)(B)(vii)(III).[1072]

In the *Local Competition Second Report and Order*, the FCC 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: (i) the identity of a requesting customer's local telephone service provider; or (ii) the identity of the telephone service provider for a customer whose directory listing is requested."[1073] The FCC limited the *Local Competition Second Report and Order*'*s* interpretation of § 251(b)(3) "to access to each LEC's directory assistance service."[1074] However, § 271(c)(2)(B)(vii) is not limited to the LEC's systems but requires "nondiscriminatory access to . . . directory assistance to allow the other carrier's customers to obtain telephone numbers."[1075] Combined with the FCC'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,"[1076] § 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.[1077] Furthermore, the FCC concluded that 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.[1078] The FCC specifically held that the phrase "nondiscriminatory access to operator services" means that "a telephone service customer, regardless of the identity of his or

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[1069] *Id.*
[1070] *Second BellSouth Louisiana Order* at n.763; *Verizon New Jersey Order* at n.780.
[1071] *Verizon New Jersey Order* at n.780.
[1072] *Verizon New Jersey Order* at Appendix C ¶ 57.
[1073] 47 C.F.R. § 51.217(c)(3); *Local Competition Second Report and Order* at ¶¶ 130-35; *Verizon New Jersey Order* at Appendix C ¶ 57.
[1074] *Local Competition Second Report and Order* at ¶ 135; *Verizon New Jersey Order* at n.781.
[1075] 47 U.S.C. § 271(c)(2)(B)(vii); *Verizon New Jersey Order* at n.781.
[1076] *Local Competition First Report and Order* at ¶¶ 535-37; *Verizon New Jersey Order* at n.781.
[1077] *Verizon New Jersey Order* at n.781.
[1078] *Local Competition Second Report and Order* at ¶ 151; *Verizon New Jersey Order* at Appendix C ¶ 57.

her local telephone service provider, must be able to connect to a local operator by dialing '0,' or '0 plus' the desired telephone number."[1079]

Competing carriers may provide operator services and directory assistance by reselling the BOC's services, outsourcing service provision to a third-party provider, or using their own personnel and facilities.[1080] The FCC's 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.[1081] Competing carriers wishing to provide operator services or directory assistance using their own or a third party provider's 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.[1082] Although the FCC originally concluded that BOCs must provide directory assistance and operator services on an unbundled basis pursuant to §§ 251 and 252, the FCC removed directory assistance and operator services from the list of required UNEs in the *UNE Remand Order*.[1083] Checklist item obligations that do not fall within a BOC's obligations under § 251(c)(3) are not subject to the requirements of §§ 251 and 252 that rates be based on forward-looking economic costs.[1084] Checklist item obligations that do not fall within a BOC's UNE obligations, however, still must be provided in accordance with §§ 201(b) and 202(a), which require that rates and conditions be just and reasonable, and not unreasonably discriminatory.[1085]

3. Summary of the Evidence Before the Commission

Evidence concerning nondiscriminatory access to 911, E-911, Directory Assistance, and Operator Calls was presented by Verizon Virginia, Cavalier, Cox, and Allegiance.

Verizon Virginia – Direct Case

[1079] *Id*.
[1080] *Verizon New Jersey Order* at Appendix C ¶ 58.
[1081] 47 C.F.R. § 51.217(d); *Local Competition Second Report and Order* at ¶ 148; *Verizon New Jersey Order* at Appendix C ¶ 58.
[1082] 47 C.F.R. § 51.217(C)(3)(ii); *Local Competition Second Report and Order* at ¶¶ 141-44; *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Provision of Directory Listing Information Under the Communications Act of 1934, as amended*, Third Report and Order, Second Order on Reconsideration, and Notice of Proposed Rulemaking, 14 FCC Rcd 15550, 15630-31, ¶¶ 152-54 (1999); *Provision of Directory Listing Information Under the Communications Act of 1934, as amended*, First Report and Order, 16 FCC Rcd 2736, 2743-51 (2001); *Verizon New Jersey Order* at Appendix C ¶ 58.
[1083] *UNE Remand Order* at ¶¶ 441-42; *Verizon New Jersey Order* at Appendix C ¶ 58.
[1084] *UNE Remand Order* at ¶ 470; *Verizon New Jersey Order* at Appendix C ¶ 58.
[1085] *UNE Remand Order* at ¶¶ 470-73; *Verizon New Jersey Order* at Appendix C ¶ 58; *See also* 47 U.S.C. §§ 201(b), 202(a).

Verizon Virginia averred that it meets the requirements of this Checklist Item by offering CLECs nondiscriminatory access to 911, E-911, Directory Assistance, and Operator Call Completion services pursuant to interconnection agreements.[1086] Verizon Virginia contended that the customers of CLECs that purchase resale, UNE switching, or interconnect their own switches are able to dial 911 in the same manner as Verizon Virginia's end user customers.[1087] CLECs using their own switching may interconnect at Verizon Virginia's E-911 tandems using their own trunks or trunks provided by Verizon Virginia or another carrier.[1088] Verizon Virginia stated that as of December, 2001, it is providing interconnection in each of its 14 E-911 tandems.[1089] In addition, Verizon Virginia verified that CLECs have the ability to input their customer information directly into the E-911 databases.[1090] Verizon Virginia inputs such information for resellers and CLECs using its local switching on a first-come, first-served basis along with information for Verizon Virginia's end users.[1091] Verizon Virginia claimed that as of December 31, 2001, CLECs using their own switches had approximately 570,000 E-911 listings in Virginia.[1092]

Verizon Virginia declared that it offered CLECs three options for providing directory services.[1093] First, resellers may resell Verizon Virginia's Directory Assistance.[1094] Second, CLECs may purchase Verizon Virginia's Directory Assistance.[1095] Third, CLECs can establish their own centers to provide Directory Assistance and use Verizon Virginia's database.[1096] As of December 31, 2001, five CLECs were purchasing Verizon Virginia's Directory Assistance and interconnection using dedicated Directory Assistance and Operator Call Completion trunk ports and transmission facilities provided by Verizon Virginia, and an additional 84 CLECs and resellers were purchasing Verizon Virginia's Directory Assistance, and interconnecting using Verizon Virginia's shared transport.[1097] For CLECs that choose to use either their own or another carrier's Directory Assistance, Verizon Virginia stated that they must establish customized routing and provide transmission facilities, which may be either their own, Verizon Virginia's, or another carrier's.[1098]

Verizon Virginia testified its Directory Assistance service is available with the CLEC's own brand, unbranded, or with Verizon Virginia's brand. As of December 31, 2001, the number

[1086] Exhibit No. 1, at ¶ 249.
[1087] *Id.* at ¶¶ 251-52.
[1088] *Id.* at ¶ 253.
[1089] *Id.* at ¶ 255.
[1090] *Id.* at ¶ 256.
[1091] *Id.* at ¶ 257.
[1092] *Id.* at ¶ 263.
[1093] *Id.* at ¶ 264.
[1094] *Id.*
[1095] *Id.*
[1096] *Id.*
[1097] *Id.* at ¶ 266.
[1098] *Id.* at ¶ 267.

of CLEC-specific branded, unbranded, and Verizon Virginia-branded service was 15, 6, and 71, respectively.[1099] In addition, Verizon Virginia indicated that as of December 31, 2001, 91 CLECs also subscribed to Verizon Virginia's Connect ReQuest service, which allows CLEC customers to complete calls automatically to numbers obtained from Directory Assistance.[1100]

Verizon Virginia explained that Virginia CLECs also have three options for providing Operator Call Completion services, including reselling Verizon Virginia's retail service for resellers, purchasing Verizon Virginia's Operator Call Completion services, or establishing their own centers to provide Operator Call Completion service.[1101] Verizon Virginia submitted that its Operator Call Completion service is available with the CLEC's own brand, unbranded, or with Verizon Virginia's brand.[1102] In addition, Verizon Virginia confirmed that it offers Line Status Verification ("LSV") and LSV with Interrupt ("LSVI") to CLECs that purchase its Operator Call Completion services.[1103] Verizon Virginia asserted that as of December 31, 2001, it provided LSV and LSVI to 92 CLECs.[1104]

Cavalier

The Cavalier Panel described how Verizon Virginia's scare tactics have caused counties in Virginia not to pay Cavalier for 911 services provided by Cavalier.[1105] Cavalier claimed that Verizon Virginia refuses to lower its bills to counties despite losing customers to Cavalier.[1106]

Cox

Cox witness Clarke testified that Verizon Virginia failed to unlock 911 records for customers porting from Verizon Virginia to Cox and that Verizon Virginia has both omitted information sent by Cox for input into the 911 record and added information to the Cox customer 911 record that was not sent by Cox.[1107]

Ms. Clarke explained that the 911 unlock issue involves a customer ordering Cox services, then moving and waiting for the service to be installed.[1108] The customer's 911 record cannot be processed to update the address until installation.[1109] Ms. Clarke confirmed that this is

[1099] *Id.* at ¶ 268.
[1100] *Id.* at ¶ 269.
[1101] *Id.* at ¶ 275.
[1102] *Id.* at ¶ 279.
[1103] *Id.* at ¶ 280.
[1104] *Id.*
[1105] Exhibit No. 72, at 60-61.
[1106] *Id.*
[1107] Exhibit No. 70, at 8-10.
[1108] *Id.* at 9.
[1109] *Id.*

an ongoing problem, although no 911 failures have resulted.[1110] Ms. Clarke urged the Commission to order Verizon Virginia to unlock 911 records within 24 hours of being ported.[1111]

Ms. Clarke stated that Cox became aware of its customers' 911 records being changed without their knowledge in the fall of 2001 when the 911 database was being converted to a PSALI format.[1112] Moreover, Ms. Clarke complained that monthly reconciliation of disparities between Cox's 911 records and Verizon Virginia's records is time consuming.[1113] Ms. Clarke requested that Verizon Virginia's process for managing Cox's 911 records not permit changes to be made without Cox's knowledge or consent.[1114]

Allegiance

Allegiance witness Best testified that Verizon Virginia does not have a reliable process to get a customer listing into the directory assistance database and that even if the listing is completed correctly the first time, the listing may be dropped from the directory assistance database at any time, with no warning.[1115]

4. Discussion

Verizon Virginia asserts that it has demonstrated that it complies with this Checklist Item as it offers CLECs nondiscriminatory access to E-911 services and to directory assistance and operator services pursuant to interconnection agreements.[1116] Moreover, Verizon Virginia's performance metrics for the accuracy of Verizon Virginia's completion of database updates show that it performs at or within about one percent of parity.[1117]

In its brief, the Attorney General emphasized the importance of E-911 services and the seriousness of the situations that could prompt a person to call E-911.[1118] As the Attorney General states, "there is simply no room for errors."[1119] The Attorney General urges a policy "mandating the proper populating of all the informational fields in the E-911 database should be required of Verizon [Virginia] and all CLECs directly updating the E-911 database."[1120] I agree, but do not believe that this is a § 271 issue. Verizon Virginia and the CLECs provide E-911 service according to tariffs filed with the Commission. The terms and conditions of these tariffs should be reviewed in separate cases and not in the context of a § 271 proceeding.

[1110] *Id.*
[1111] *Id.* at 10.
[1112] *Id.* at 8-9.
[1113] *Id.* at 9.
[1114] *Id.* at 10.
[1115] Exhibit No. 52, at 8-9.
[1116] Verizon Virginia Brief at 40.
[1117] *Id.* at 41; Exhibit No. 8, at ¶ 178.
[1118] Attorney General Brief at 5-6.
[1119] *Id.* at 6.
[1120] *Id.*

Cavalier's complaint concerning E-911 relates to a billing dispute between itself and Chesterfield County in which Cavalier is trying to collect its costs associated with providing E-911 service.[1121] Cavalier contends that Verizon Virginia continues to bill the county for E-911 service in accordance with a tariff developed in 1980, which does not adjust costs to reflect migration of customers to competitive providers.[1122] During the hearing, Verizon Virginia's witnesses agreed, but maintained that its tariff recovers fixed costs associated with E-911 that do not change when customers move to CLECs.[1123] On brief, Verizon Virginia argued that Cavalier's billing dispute with Chesterfield County "in no way impugns Verizon [Virginia]'s showing under this Checklist Item."[1124] I agree that this issue does not appear to touch upon the requirements of § 271. Again, such an issue should be raised in a proceeding addressing the rates, terms and conditions by which Verizon Virginia and CLECs provide E-911 service, where all interested parties, including Chesterfield County and other localities may participate.

In its brief, Cox indicates that Verizon Virginia has taken steps to address concerns raised by Cox in its prefiled testimony.[1125] Specifically, Cox reports that Verizon Virginia "has agreed to consider providing Cox real-time notification of updates to the [Master Street Address Guide]."[1126]

Finally, Verizon Virginia answers Allegiance's contentions by pointing out that most of the errors alleged by Allegiance occurred prior to system improvements Verizon Virginia implemented in the fall of 2001.[1127] Moreover, for those few instances occurring after the system improvements, Verizon Virginia claims that almost half of those errors were the responsibility of Allegiance.[1128] This limited number of errors appears to be consistent with overall performance results.

Consequently, I find that Verizon Virginia provides nondiscriminatory access to E-911 services in accordance with the requirements of the Act.

5. Conclusion

Based on the record, I find that Verizon Virginia provides nondiscriminatory access to 911, E-911, directory assistance services to allow the other carrier's customers to obtain telephone numbers, and operator call completion services in accordance with the requirements of Checklist Item 7.

[1121] Cavalier Brief at 15-16.
[1122] *Id.* at 15.
[1123] Green, Tr. at 398, 402-03.
[1124] Verizon Virginia Brief at 41.
[1125] Cox Brief at 38.
[1126] *Id.*
[1127] Verizon Virginia Brief at 42; Exhibit No. 10, at ¶ 88.
[1128] *Id.*

H. Checklist Item 8 – White Page Directory Listings

Section 271(c)(2)(B)(viii) requires Verizon Virginia to provide white page directory listings for CLEC customers.

1. Description

Section 251(b)(3) obligates all LECs to permit competitive providers of telephone exchange service and telephone toll service to have nondiscriminatory access to directory listing. In the *Second BellSouth Louisiana Order*, the FCC concluded that, "consistent with the Commission's interpretation of 'directory listing' as used in § 251(b)(3), the term 'white pages' in § 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 provider."[1129] The FCC 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."[1130]

2. Standard of Review

In the *Second BellSouth Louisiana Order* the FCC held that a BOC satisfies the requirements of Checklist Item 8 by demonstrating that it: (i) provided nondiscriminatory appearance and integration of white page directory listings to competitive LECs' customers; and (ii) provided white page listings for competitors' customers with the same accuracy and reliability that it provides its own customers.[1131]

3. Summary of the Evidence Before the Commission

Evidence concerning white page directory listings was presented by Verizon Virginia, Cavalier, Cox, AT&T, and NTELOS.

Verizon Virginia – Direct Case

Verizon Virginia avowed that it has procedures in place to ensure that directory listings of CLEC customers are included in its database on an accurate, reliable, and nondiscriminatory basis.[1132] Verizon Virginia claimed that as of December 31, 2001, its Virginia White Page database contained over 300,000 CLEC and Reseller listings.[1133]

Verizon Virginia explained that it provides residential and business customers of CLECs with one free White Page listing for each telephone service.[1134] In addition, a CLEC's business

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[1129] *Second BellSouth Louisiana Order* at ¶ 255; *Verizon New Jersey Order* at Appendix C ¶ 60.
[1130] *Id*.
[1131] *Id.*
[1132] Exhibit No. 1, at ¶ 284.
[1133] *Id.*
[1134] *Id.* at ¶ 287.

customer is provided with a "basic" Yellow Page Directory listing at no charge.[1135] Verizon asserted that these listings are identical in appearance, placement and font to those provided to Verizon Virginia's retail customers and intermixed alphabetically with Verizon Virginia's listings.[1136] Verizon Virginia's affiliate, Verizon Information Services Virginia Inc. ("VIS"), processes listing service order data for customers of both Verizon Virginia and CLECs in the same manner.[1137] Verizon Virginia disclosed that it is VIS's policy not to remove a listing from the published directory without the receipt of a disconnect listing service order or a listing service order changing the account to a non-published or non-listed service.[1138]

Verizon Virginia described four procedures that CLECs and Resellers may use to validate their customers' listings.[1139] First, thirty days prior to the close date for a particular White Page directory, VIS gives each carrier a Listings Verification Report ("LVR"), which contains all listings for the carrier that are in the VIS database for publication in the upcoming directory.[1140] Second, CLECs may view an up-to-date display of the White Page directory database for all Virginia-published listings through a Web GUI.[1141] Third, at a CLEC's request, Verizon Virginia will provide the LVR in a searchable and sortable electronic text format.[1142] Fourth, CLECs receive an electronic confirmation order from Verizon Virginia, which if compared to the associated LSR, permits CLECs and Resellers to determine whether their listing information was processed accurately.[1143]

Verizon Virginia contended that VIS distributes directories to Verizon Virginia and CLEC customers at exactly the same time and in the same manner.[1144] Similarly, "out-of-area" White Page directories are available to Verizon Virginia and CLEC customers on the same terms.[1145]

Finally, Verizon Virginia asserted that KPMG found that Verizon Virginia accurately provisioned 94.7% of its test orders in its Directory Listings database.[1146]

Cavalier

The Cavalier Panel claimed that Verizon Virginia is not meeting Checklist Item 8 because its directory listing input process is fraught with problems and fundamentally flawed.[1147]

[1135] *Id.*
[1136] *Id.*
[1137] *Id.* at ¶ 290.
[1138] *Id.* at ¶ 291.
[1139] *Id.* at ¶¶ 292-95.
[1140] *Id.* at ¶ 292.
[1141] *Id.* at ¶ 293.
[1142] *Id.* at ¶ 294.
[1143] *Id.* at ¶ 295.
[1144] *Id.* at ¶ 297.
[1145] *Id.*
[1146] *Id.* at ¶ 301.

Cavalier asserted that KPMG can test the OSS but it cannot fix the fundamental flaw in the directory process.[1148] Cavalier stated that the fundamental flaw is that Verizon Virginia puts the responsibility on the CLECs to verify and fix Verizon Virginia's mistakes.[1149] Cavalier asserted that because of Verizon Virginia's flawed directory process, Cavalier has been forced to dedicate six full time employees to verify Verizon Virginia's inputs.[1150]

Cavalier claimed that Verizon Virginia's directory process requires it to review the LVR provided by Verizon Virginia only 30 days before the directory closes and that Cavalier's experience with this review has routinely uncovered numerous errors made by Verizon Virginia.[1151] Cavalier testified that it inputs the directory listing information of its customers correctly and receives a confirmation that the order was accepted; however, in many instances when it gets the LVR the listing is not there.[1152] Cavalier complained that it is forced to "chase" thousands of last minute corrections because of this problem.[1153]

Cavalier pointed to its experience with the 2001 Hampton Roads and Richmond Directory closings to document directory problems.[1154] Cavalier claimed that these closings demonstrate there were thousands of listing errors that it had to fix by expending its own resources.[1155] Cavalier further maintained that Verizon Virginia has never disputed that these mistakes occurred.[1156] In support of its claims, Cavalier filed several letters that it sent to Verizon Virginia regarding the problems with the 2001 Richmond Directory, as well as documents showing a root cause analysis made by Verizon Virginia of approximately fifty 2001 Richmond Directory errors identified by Cavalier.[1157] According to Cavalier, Verizon Virginia admitted its responsibility for twenty-six of these errors – but Cavalier put the number of Verizon Virginia errors at thirty-six.[1158]

Cavalier declared that it does all it can do using the tools available to ensure its customers have correct listings, but errors still occur.[1159] Cavalier claimed that it does not know why Verizon Virginia's directory process does not work but suspects that errors occur because of multiple manual entry steps.[1160] Cavalier contended that the Directory Listing Workshop

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(Continued from previous page)
[1147] Exhibit No. 72, at 18-19.
[1148] *Id.* at 19.
[1149] *Id.*
[1150] *Id.*
[1151] *Id.*
[1152] *Id.* at 20.
[1153] *Id.*
[1154] *Id.*
[1155] *Id.*
[1156] *Id.* at 21.
[1157] *Id.* at Exhibits 7-11.
[1158] *Id.* at 22-24.
[1159] *Id.* at 24.
[1160] *Id.*

conducted by the Commission's Staff on March 28, 2002 is further evidence that other CLECs are experiencing similar listing errors, and that Verizon Virginia is making no effort to develop solutions.[1161] In addition, Cavalier stated that the KPMG test did not capture whether directory listings were correct, only whether the LVR was sent on time.[1162] As Cavalier described "KPMG only looked at the front end of the process and not the critical tail end final product."[1163]

Cavalier also raised concerns regarding business Yellow Page listings.[1164] Cavalier noted that there is no LVR for listings in the Yellow Pages and there are instances where listings may appear in the white pages but not in the Yellow Pages and vice versa.[1165] Cavalier observed that Verizon Virginia fails to offer any payment or other compensation to CLEC customers that are omitted from the Yellow Pages.[1166] Cavalier also accused Verizon Virginia of using inappropriate marketing practices when discussing Yellow Page listings with Cavalier's customers.[1167]

Cavalier asserted that there is no performance metric in place for Verizon Virginia to cover inaccurate directory listings, and there is no recourse or remedy to the CLEC for these inaccuracies.[1168]

Cox

Tracy Carhart, technical support supervisor for residential LNP and residential and commercial directory listings in the systems operations center for Cox, asserted that there are two primary systematic problems with Verizon Virginia's directory listing process.[1169] Ms. Carhart described these problems as (i) the requirement for an ALI Code/BANs, and (ii) the lack of a comprehensive electronic sortable proof of directory listings.[1170]

Ms. Carhart explained that Verizon Virginia responds to a CLEC directory listing order by sending a confirmation order that includes the ALI Code, which must be associated with a particular BAN that the CLEC submitted with its initial order.[1171] Whenever customers want to change their listing or disconnect a number, the CLEC must reference the ALI Code and BAN combination, or the order will be rejected.[1172] Ms. Carhart asserted that the challenge for CLECs is that the sources available to search for the ALI/BAN combination are not easily searchable or

[1161] *Id.* at 24-25.
[1162] *Id.* at 25.
[1163] *Id.*
[1164] *Id.* at 26.
[1165] *Id.* at 25-26.
[1166] *Id.* at 27-28.
[1167] *Id.* at 28.
[1168] *Id.* at 26-27.
[1169] Exhibit No. 84, at 5.
[1170] *Id.*
[1171] *Id.*
[1172] *Id.*

consistently accurate, which makes this process time consuming, administratively burdensome, and costly to Cox.[1173]

Similarly, Ms. Carhart maintained that the process for auditing the LVR is unmanageable and manually intensive, as it is not an electronic document.[1174] Ms. Carhart stated that the current LVR for Cox's Hampton Road directory listings is 1767 pages and is not available in a sortable, electronic format.[1175]

In addition, Ms. Carhart pointed out that the LVR does not provide the layout of a caption listing.[1176] Ms. Carhart contended that it is very important for business customers to have their directory listing appear as requested, and without the layout, Cox has no way of checking.[1177] Ms. Carhart observed that BellSouth provides galley pages or proofs of the actual layout of the directory listing.[1178] Ms. Carhart urged the Commission to require Verizon Virginia to provide galley pages.[1179]

Ms. Carhart complained that Verizon Virginia requires Cox's customers to pay for directory advertisements on a lump sum basis, while it offers its own customers the option of paying monthly.[1180]

In addition, Ms. Carhart reported on the serious impact on directory listings that resulted from Verizon Virginia's President's Day software upgrade in February 2002.[1181] Ms. Carhart contended that as a result of numerous problems, Cox was unable to make timely directory listing changes, and even Verizon Virginia's work-around suggestions failed.[1182] Ms. Carhart affirmed that a number of problems arose from this software upgrade and associated trouble tickets still remain open.[1183]

Ms. Carhart recommended that the Commission require the following document as a solution to Cox's ALI Code/BAN and LVR problems:

> Verizon Virginia could provide a single document, a one-stop shop, if you will, for the CLECs that is (1) electronic; (2) sortable by type of listing (i.e. nonpublished/nonlisted/listed/name only); (3) sortable by class of customer (i.e. commercial/residential); (4)

[1173] *Id.* at 5-7.
[1174] *Id.* at 7.
[1175] *Id.*
[1176] *Id.*
[1177] *Id.* at 7-8.
[1178] *Id.* at 9.
[1179] *Id.*
[1180] *Id.* at 10-11.
[1181] *Id.* at 11.
[1182] *Id.* at 11-20.
[1183] *Id.*

> sortable by name; (5) sortable by telephone number; (6) sortable by BAN; (7) reliable; (8) contains the correct ALI Code/BAN combination for each telephone number.[1184]

Ms. Carhart indicated that if an electronic LVR is not immediately available, Verizon Virginia could take the interim steps of providing a sortable electronic copy of the current LVR and upgrade the Directory Listing Response in the GUI to include all of Cox's listings, even those in Legacy, and to include the ALI Code/BAN combination[1185]

AT&T

The AT&T Panel asserted that the KPMG test did not check directory listings to see if they actually appeared in a directory because KPMG utilized only unpublished numbers.[1186] Therefore, AT&T contended that KPMG was able to check the status of only those listings in the directory assistance database.[1187]

AT&T maintained that directory listing errors can severely impact consumers because they must usually wait a full year before the error can be corrected in the next directory.[1188] AT&T submitted that CLECs in Virginia have had a substantial number of directory listing errors.[1189] AT&T argued that this experience demonstrates that the failure of KPMG to test directory listings is a serious omission that should be rectified before the Commission rules in this case.[1190]

NTELOS

NTELOS witness Goodman contended that overall, Verizon Virginia has fallen short of opening the local telecommunications market in Virginia and has failed to offer acceptable performance in providing wholesale services.[1191]

Mr. Goodman complained that Verizon Virginia's directory listing process is completely inadequate and causes irreparable damage to CLECs.[1192] Mr. Goodman testified that problems with directory listings are well known to the Commission and that Verizon Virginia has made no

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[1184] *Id*. at 23.
[1185] *Id.*
[1186] Exhibit No. 93, at 39.
[1187] *Id.*
[1188] *Id.*
[1189] *Id.* at 10.
[1190] *Id.* at 40.
[1191] Exhibit No. 91, at 2.
[1192] *Id.* at 5.

meaningful progress towards improving the process.[1193] Mr. Goodman stressed that CLECs are harmed because the directory listing cannot be corrected for a year[1194]

Mr. Goodman claimed that NTELOS and other CLECs in Virginia have expended considerable time and money finding directory errors.[1195] Mr. Goodman stated that listings that appeared correct on the LSR as well as at other points in the process will then somehow show up wrong in the LVR.[1196] Mr. Goodman pointed out that because Verizon Virginia does not provide CLECs with access to the final proof of the directory, the LVR is the final checkpoint for CLECs.[1197] Mr. Goodman relayed that although NTELOS attempts to verify directory listings in the LVR, this effort does not assure that all of its listings will appear correctly in the actual directory.[1198]

Verizon Virginia – Reply

Verizon Virginia stated that four CLECs challenge its compliance with Checklist Item 8.[1199] However, Verizon Virginia contended that their opposition is based on out-of-date claims or a misunderstanding of the white page listing requirements of the 1996 Act.[1200]

Verizon Virginia attested that it undertook several steps last year to improve its white page listing processes.[1201] For example, in the fall of 2001, Verizon Virginia implemented a quality verification process for all manually processed orders.[1202] This verification audit looks at the manual entry of a service order into the SOP from the CLEC's LSR by the NMC, and checks whether the information on the LSR is identical to that on the service order.[1203] Verizon Virginia also pointed to the eleven CLEC workshops and training sessions it has held on directory listings since January 2001 and stated that extensive documentation is available on its Wholesale website.[1204] Therefore, Verizon Virginia argued that any claims that predate these changes are of little value in evaluating the current operations.[1205]

Verizon Virginia maintained that while not perfect, the white page directory information is highly accurate in Virginia.[1206] Verizon Virginia pointed out that Cavalier identified only a

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[1193] *Id.* at 5-6.
[1194] *Id.* at 6.
[1195] *Id.*
[1196] *Id.*
[1197] *Id.*
[1198] *Id.*
[1199] Exhibit No. 8, at ¶¶ 179-200.
[1200] *Id.* at ¶ 179.
[1201] *Id.* at ¶ 181.
[1202] Exhibit No. 10, at ¶ 87.
[1203] *Id.*
[1204] *Id.* at ¶¶ 85-86.
[1205] Exhibit No. 8, at ¶ 182.
[1206] *Id.* at ¶ 183.

few examples of errors published in the directory and Cavalier recognized that some of these were their own.[1207] Verizon Virginia stated that the results of Metric OR 6-04 – "Listing Accuracy Metric," which takes a random sampling of LSRs and compares the directory listing information on those with the corresponding service order, confirms the accuracy of its directory listing information.[1208] In March 2002, Verizon Virginia reported a 100% match.[1209]

Verizon Virginia explained that it did a special study to look at the downstream directory listing process by taking the sample from the OR 6-04 in March and comparing the service order listing information to that on the information in the VIS systems and found that 95.63% of the service orders matched information in the VIS systems and another 4.03% were in the process of being updated, resulting in a 99.63% match.[1210]

Verizon Virginia affirmed that it does allow CLECs to migrate "as is" directory listings when a CLEC is obtaining a Verizon Virginia retail customer, a resale customer or a UNE-P customer, by indicating this in the End User Retaining Listings ("ERL") field on the initial LSR.[1211] Verizon Virginia provided that the use of the ERL field was significantly increased in February 2002, based on a change request by a CLEC, to include partial migrations.[1212] Verizon Virginia also described the directory team it has dedicated to work with CLECs to make sure that reported LVR directory discrepancies are resolved to meet book-closing dates.[1213]

Verizon Virginia stressed that the directory listing process for CLECs is the same process as for Verizon Virginia's retail service orders.[1214] Contrary to CLEC assertions, Verizon Virginia claimed that there are various checkpoints in this process (before the LVR) where the CLEC can verify the accuracy of its listings, including: (i) the local service confirmation, (ii) the BCN, or (iii) through a Directory Listing Request that enables the CLEC to retrieve listing data from VIS for a specific customer at any given time.[1215]

Verizon Virginia argued that issues raised by Cavalier and Cox related to Yellow Pages are outside the scope of this case, and Yellow Pages are neither regulated nor a checklist item.[1216] Verizon Virginia testified that Yellow Pages customers of VIS are treated the same whether service is provided by Verizon Virginia or a CLEC.[1217]

[1207] *Id.*
[1208] *Id.* at ¶ 184.
[1209] *Id.*
[1210] *Id.* at ¶ 196; Exhibit No. 10, at ¶ 87.
[1211] Exhibit No. 10, at ¶ 82.
[1212] *Id.* at ¶ 94.
[1213] *Id.* at ¶ 96.
[1214] *Id.* at ¶ 83.
[1215] *Id.* at ¶¶ 83-84; Exhibit No. 8, at ¶ 192.
[1216] Exhibit No. 8, at ¶¶ 197-200.
[1217] *Id.*

Verizon Virginia disputed CLECs' claims that there are significant errors on the LVRs.[1218] While Verizon Virginia recognized there were problems on LVRs for several directories, those were prior to the quality verification process on manually processed listings, implemented in October 2001.[1219] Verizon Virginia pointed out that the CLECs themselves are responsible for some directory errors.[1220]

Verizon Virginia maintained that the CLEC must manage the directory listings of its customers.[1221] For example, Verizon Virginia described the project it is undertaking for Cavalier to remove almost 10,000 dead listings in the South Hampton Roads directory because Cavalier failed to submit a disconnect LSR for the directory listing when the associated loop was disconnected.[1222]

Verizon Virginia contended that complaints by Cavalier and Cox regarding missing expressTRAK ALI codes are no longer valid.[1223] As of February 2002, the ALI code spreadsheets include information on both legacy and expressTRAK accounts. [1224]

Verizon Virginia advised that if Cox wanted a sortable, electronic LVR, then it should submit such a request through the change management process.[1225] However, in its oral rebuttal testimony in the hearing, Verizon Virginia witness McLean stated:

> [Verizon Virginia has] worked to develop an electronic version of the LVR that is today available on a pilot basis. We are working through the change management process to make that file generally available to any CLEC using standard file transfer methods.[1226]

As to galley proofs, though opposed to providing galley proofs to CLECs, Verizon Virginia offered that it does provide "a captioned view of the listings, which can be translated into a galley proof."[1227] This view of captioned listings is available through the directory listing transaction as part of the Web GUI.[1228]

4. Discussion

[1218] Exhibit No. 10, at ¶ 90.
[1219] *Id.* at ¶¶ 90-91.
[1220] *Id.* at ¶ 92.
[1221] *Id.* at ¶¶ 96-97.
[1222] *Id.* at ¶ 97.
[1223] *Id.* at ¶¶ 106-08.
[1224] *Id.* at ¶ 107.
[1225] *Id.* at ¶ 112.
[1226] McLean, Tr. at 1270.
[1227] Savino, Tr. at 888.
[1228] *Id.* at 889.

Verizon Virginia asserts that it has demonstrated it provides white page directory listings to CLECs on a nondiscriminatory basis.[1229] The CLECs and the Attorney General offer several criticisms and recommendations regarding white page directory listings.

Cavalier charges that Verizon Virginia's directory listings process is flawed, which creates "some of the most difficult and emotionally charged customer issues that Cavalier faces."[1230] Cavalier asserts that it has six full-time employees devoted to correcting the errors found in Verizon Virginia's LVRs.[1231] Cavalier argues that Verizon Virginia did not dispute the thousands of errors uncovered by Cavalier for the Richmond and Hampton Roads directories.[1232] Finally, Cavalier accused Verizon Virginia of using its error-prone Yellow Page process to scare Cavalier's customers into becoming win-backs for Verizon Virginia.[1233]

Cox presents administrative problems posed by Verizon Virginia's ALI codes and on the time-consuming difficulties encountered when manually reviewing Verizon Virginia's LVRs.[1234] To address directory listing problems, Cox seeks an electronic, sortable LVR and the opportunity to review galley proofs of the actual directory layout as provided to Cox by BellSouth.[1235]

On brief, AT&T emphasizes that KPMG did not test directory listings and that currently there is no check on the end-to-end process.[1236] AT&T insists that Verizon Virginia's LVR process shifts the responsibility of verifying Verizon Virginia's inputs to CLECs.[1237] Furthermore, AT&T characterizes the current manual review process of Verizon Virginia's LVR as "a lame vehicle for CLECs to use to verify directory listings."[1238]

Finally, the Attorney General highlights the fact that the Commission has already instituted an examination of Verizon Virginia's processes related to directory listings.[1239] The Attorney General stresses the importance of directory listings to business and residential customers.[1240] The Attorney General asks the Commission to require some combination of: (i) improving the Verizon Virginia process; (ii) providing CLECs with the additional error checking tools they have requested; and (iii) allowing CLECs to directly update the VIS database, in a manner similar to the E-911 database method or the method used when the listings of a neighboring ILEC appear in a Verizon Virginia telephone book.[1241]

[1229] Verizon Virginia Brief at 42.
[1230] Cavalier Brief at 17.
[1231] *Id.*; Exhibit No. 72, at 19.
[1232] Cavalier Brief at 17; Exhibit No. 72, at 20-23.
[1233] Cavalier Brief at 18.
[1234] Cox Brief at 19-20; Exhibit No. 84, at 7.
[1235] Cox Brief at 20-21; Exhibit No. 84, at 9, 23.
[1236] AT&T Brief at 85, 88.
[1237] *Id.* at 86-87.
[1238] *Id.* at 87.
[1239] Attorney General Brief at 6.
[1240] *Id.*
[1241] *Id.* at 7.

Verizon Virginia maintains that it has made significant improvements to its directory listings process since the fall of 2001.[1242] These improvements include: (i) a quality verification review of manually processed directory listing orders, which forms the basis of metric OR-6-04; (ii) automation of the quality verification review process; (iii) expanding the functionality of the "as is" option to CLECs; and (iv) providing the means by which CLECs can verify CLEC provided instructions for all listings associated with the services to be migrated, deleted, or changed.[1243]

Verizon Virginia asserts that the CLECs overstate the problems associated with directory listings because most of the problems cited occurred before its recent system improvements and because errors in the LVR do not equate to errors in the directory.[1244] Verizon Virginia points to its analysis of Cavalier's alleged errors in the Petersburg directory and the small number of errors in published directories as indicators that errors in the directory listing process are not competitively significant.[1245]

Verizon Virginia rejects requests for access to galley proofs and argues that the process would be highly labor intensive for CLECs and is unnecessary since Verizon Virginia provides CLECs with the option of "a captioned view of the listing, which can be translated into a galley proof."[1246] Furthermore, Verizon Virginia recommends against providing CLECs with direct access to VIS databases based on the added complexities that would involve.[1247]

On the other hand, Verizon Virginia committed to make a sortable, electronic version of the LVR generally available to CLECs through its Change Management process.[1248] Finally, Verizon Virginia volunteers to provide to the Commission six months of reports based on the white pages special study it described in ¶ 87 of Exhibit No. 10.[1249]

I disagree with any attempts by Verizon Virginia to minimize the level of directory problems that have been experienced in Virginia. For example, the *Style Weekly* article complained of thousands of mistakes in the Richmond directory, which a Verizon Virginia spokesman blamed on competition and erroneously directed customers "to inform Verizon when there is a switch in service and update listings."[1250] Based on the errors discovered in LVRs and in the directories themselves, the Commission has directed its ongoing collaborative on metrics to explore the development of additional measures to document directory errors.

[1242] Verizon Virginia Brief at 43-44; Exhibit No. 10, at ¶¶ 93-97.
[1243] *Id.*
[1244] Verizon Virginia Brief at 44.
[1245] *Id.* at 44-45, 47; McLean, Tr. at 1270.
[1246] Verizon Virginia Brief at 46; Verizon Virginia's Directory Listings Panel, Tr. at 888-90.
[1247] McLean, Tr. at 1271-73.
[1248] *Id.* at 1270; Verizon Virginia Brief at 48.
[1249] Verizon Virginia Brief at 48.
[1250] Exhibit No. 51.

Moreover, the KPMG test raised issues regarding directory listings. KPMG Exception Number 1, opened on August 14, 2001, described that KPMG tested 153 CLEC directory listings transactions to determine the accuracy of the directory listings database within 48 hours after the Verizon Virginia firm order confirmation date.[1251] KPMG found that only 58.8% of the telephone numbers were accurately entered.[1252] On November 13, 2001, KPMG repeated the test with its own production orders and found that 89 of 92, or 92.7% of the numbers were entered correctly into the directory listings database.[1253] These results were adjusted to correct for an error in the KPMG data, which produced a 94.7% accuracy rate. As noted in KPMG's draft Final Report, Verizon Virginia satisfied this test point because "94.7% is not statistically significantly different (p-value = 0.49) from the benchmark of 95% with 95% confidence."[1254]

Verizon Virginia's efforts as of late to improve the accuracy of directory listings are viewed as positive developments. Unfortunately, because directories are on annual cycles, improvements to the process may not be realized fully during the current directory cycle. Thus, CLEC reviews of LVRs will continue to be an important aspect of the overall process of providing accurate directories. Verizon Virginia's commitments to make a sortable, electronic version of the LVR generally available to CLECs through its change control process and to provide to the Commission six months of reports based on the white pages special study it described in ¶ 87 of Exhibit No. 10 are key factors in determining whether Verizon Virginia meets the requirements of Checklist Item 5. Indeed, Verizon Virginia should reflect in its change control process that this Commission endorses the establishment of a sortable electronic LVR with the functionality described by Cox witness Carhart.[1255]

Therefore, based on the improvements Verizon Virginia has made to its directory listing process and its commitments to provide a sortable, electronic version of the LVR through its change control process, I find that Verizon Virginia meets the requirements of Checklist Item 8. I further recommend that the Commission continue its collaborative initiative regarding directory listings and take any future actions that may be required to improve the accuracy of Verizon Virginia's white page directories. In other words, a finding that Verizon Virginia satisfies Checklist Item 8 in this proceeding should not be read as a limit on what may or may not be appropriate actions in the future.

5. Conclusion

Based on the record and its commitments I find that Verizon Virginia provides white page directory listings for CLEC customers in accordance with the requirements of Checklist Item 8.

[1251] *See*, Commission's OSS Test webpage: www.state.va.us/scc/division/puc/ossfolder/exc/ex01_v3.pdf.
[1252] *Id.*
[1253] *Id.*
[1254] Exhibit No. 2, Attachment 301 at 274.
[1255] *See*, Exhibit No. 84, at 23; Cox Brief at 21.

I. Checklist Item 9 – Number Administration

Section 271(c)(2)(B)(ix) requires Verizon Virginia to provide nondiscriminatory access to telephone numbers for assignment to the other carrier's telephone exchange service customers and to comply with any numbering administration guidelines, plans, or rules.

1. Description and Standard of Review

The checklist mandates compliance with "such guidelines, plan, or rules" after they have been established.[1256] A BOC must demonstrate that it adheres to industry numbering administration guidelines and FCC rules.[1257]

2. Summary of the Evidence Before the Commission

Verizon Virginia presented evidence concerning numbering administration.

Verizon Virginia – Direct Case

Verizon Virginia submitted that responsibility for assignment of telephone numbers has been transferred from it to NeuStar, which has been designated by the FCC as the North American Numbering Plan Administrator ("NANPA").[1258] Thus, NeuStar is responsible for area code relief planning and for assigning central office codes ("NXX codes").[1259] Verizon Virginia certified that it adheres in a timely and accurate manner to all industry numbering administration guidelines and FCC rules, including provisions requiring the accurate reporting of data to NeuStar and the updating of switches to recognize new CLEC NXX codes.[1260]

3. Discussion

No party challenges Verizon Virginia's compliance with the requirements of this Checklist Item.

4. Conclusion

[1256] 47 U.S.C. § 271(c)(2)(B)(ix); *Verizon New Jersey Order* at Appendix C ¶ 61.
[1257] *Verizon New Jersey Order* at Appendix C ¶ 61; *See Second Bell South Louisiana Order* at ¶ 265; *See also Numbering Resource Optimization*, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 7574 (2000); *Numbering Resource 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); *Numbering Resource Optimization*, Third Report and Order and Second Order on Reconsideration in CC Docket No. 96-98 and CC Docket No. 99-200 (rel. Dec. 28, 2001).
[1258] Exhibit No. 1, at ¶¶ 303-04.
[1259] *Id.* at ¶ 304.
[1260] *Id.* at ¶¶ 306-07.

Based on the record, I find that Verizon Virginia provides nondiscriminatory access to telephone numbers for assignment to the other carrier's telephone exchange service customers and complies with numbering administration guidelines, plans, or rules in accordance with the requirements of Checklist Item 9.

J. Checklist Item 10 – Databases and Associated Signaling

Section 271(c)(2)(B)(x) requires Verizon Virginia to provide "[n]ondiscriminatory access to databases and associated signaling necessary for call routing and completion."

1. Description and Standard of Review

In the *Second BellSouth Louisiana Order*, the FCC 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")."[1261] The FCC also required BellSouth to design, create, test, and deploy AIN based services at the SMS through a Service Creation Environment ("SCE").[1262] In the *Local Competition First Report and Order*, the FCC 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.[1263] At that time the FCC required incumbent LECs to provide unbundled access to their call-related databases, including but not limited to: the LIDB, the Toll Free Calling database, the Local Number Portability database, and Advanced Intelligent Network databases.[1264] In the *UNE Remand Order*, the FCC 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 E-911 databases."[1265]

2. Summary of the Evidence Before the Commission

Verizon Virginia and WorldCom presented evidence concerning access to databases and signaling.

Verizon Virginia – Direct Case

[1261] *Second BellSouth Louisiana Order* at ¶ 267; *See Verizon New Jersey Order* at Appendix C ¶ 62.
[1262] *Second BellSouth Louisiana Order* at ¶ 272; *See Verizon New Jersey Order* at Appendix C ¶ 62.
[1263] *Local Competition First Report and Order* at n.1126; *UNE Remand Order* at ¶ 403; *Verizon New Jersey Order* at Appendix C ¶ 62.
[1264] *Local Competition First Report and Order* at ¶ 484; *See Verizon New Jersey Order* at Appendix C ¶ 62.
[1265] *UNE Remand Order* at ¶ 403; *See Verizon New Jersey Order* at Appendix C ¶ 62.

Verizon Virginia asserted that it provides competing carriers with nondiscriminatory access to its (i) signaling networks, (ii) call-related databases, and (iii) SMS pursuant to its Virginia interconnection agreements.[1266] Verizon Virginia stated that it provides unbundled access to its signaling links and signaling transfer points, which permits CLECs to use Verizon Virginia's Common Channel Signaling System No. 7 ("SS7").[1267] Verizon Virginia uses an SS7 network to set up or establish calls (*i.e.*, dial tone, routing), and to carry queries and responses between switches and databases.[1268] Verizon Virginia offered that as of December 31, 2001, it provided eight CLECs in Virginia with access to its signaling network.[1269]

Verizon Virginia explained that its call-related databases provide the translation and routing data needed to deliver advanced network services and include: (i) LIDB, which provides access to the Calling Name; (ii) Toll Free Database; (iii) LNP Database; and (iv) AIN.[1270] Verizon Virginia maintained that access to these call-related databases is provided on an unbundled and nondiscriminatory basis.[1271]

Finally, Verizon Virginia described its SMS, which enables competing carriers to enter, modify, or delete entries for their own customers in Verizon Virginia's other databases.[1272] The SMS for the Toll Free Databases and for the LNP database is administered by a neutral third party.[1273]

WorldCom

As described above, WorldCom witness Freifeld advised this Commission that WorldCom has an arbitration pending before the FCC, which has open issues related to some of the competitive Checklist Items.[1274] Pending in this arbitration is whether Verizon Virginia may restrict WorldCom's use of LIDB to local calls only.[1275] Mr. Freifeld advised that because of this open issue, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 10.[1276]

3. Discussion

The only issue related to databases and signaling is WorldCom's FCC arbitration issue, which is dealt with in the Discussion section of Checklist Item 1.

[1266] Exhibit No. 1, at ¶ 310.
[1267] *Id.* at ¶ 313.
[1268] *Id.* at ¶ 315.
[1269] *Id.* at ¶ 317.
[1270] *Id.* at ¶ 318.
[1271] *Id.* at ¶¶ 322-44.
[1272] *Id.* at ¶ 345.
[1273] *Id.* at ¶ 346.
[1274] Exhibit No. 65.
[1275] *Id.* at ¶ 26.
[1276] *Id.* at ¶ 27.

4. Conclusion

Based on the record, I find that Verizon Virginia provides nondiscriminatory access to databases and the associated signaling necessary for call routing and competition in accordance with the requirements of Checklist Item 10.

K. Checklist Item 11 – Number Portability

Section 271(c)(2)(B)(xi) states that "[u]ntil the date by which the [FCC] issues regulations pursuant to section 251 of this title to require number portability, interim telecommunications number portability through remote call forwarding, direct inward dialing trunks, or other comparable arrangements, with as little impairment of functioning, quality, reliability, and convenience as possible. After that date, full compliance with such regulations."

1. Description

Number portability is defined as the "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another."[1277] Section 251(b)(2) requires all LECs "to provide, to the extent technically feasible, number portability in accordance with requirements prescribed by the [FCC]."[1278] 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 [FCC]."[1279]

2. Standard of Review

Pursuant to the statutory provisions described above, the FCC requires LECs to offer interim number portability "to the extent technically feasible."[1280] The FCC also requires LECs

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[1277] 47 U.S.C.S. § 153(30).
[1278] *Id.* at § 251(b)(2).
[1279] *Id.* at § 251(e)(2); *See Verizon New Jersey Order* at Appendix C ¶ 63; *See also Second BellSouth Louisiana Order* at ¶ 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, 15 FCC Rcd 16459, 16460, 16462-65, ¶¶ 1, 6-9 (1999) ("*Fourth Number Portability Order*").
[1280] *Fourth Number Portability Order* at ¶ 10; *Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8409-12, ¶¶ 110-16 (1996) ("*First Number Portability Order*"); *Verizon New Jersey Order* at Appendix C ¶ 63; *See also* 47 U.S.C. § 251(b)(2).

to gradually replace interim number portability with permanent number portability.[1281] The FCC has established guidelines for states to follow in mandating a competitively neutral cost-recovery mechanism for interim number portability,[1282] and created a competitively neutral cost-recovery mechanism for long-term number portability.[1283]

3. Summary of the Evidence Before the Commission

Verizon Virginia presented evidence concerning LNP.

Verizon Virginia – Direct Case

Verizon Virginia affirmed that it offers LNP throughout its service area.[1284] Verizon Virginia attested that as of December 31, 2001, it was porting approximately 436,800 telephone numbers using LNP arrangements with more than 25 CLECs.[1285] For the three months ended January 2002, Verizon Virginia claimed that it met the due date on approximately 99% of "LNP Only" orders.[1286] Because it has deployed LNP in all of its switches, Verizon Virginia stated that it no longer accepts new interim number portability orders.[1287] Verizon Virginia will transition existing interim arrangements to LNP on a schedule to be worked out with the CLEC.[1288] Verizon Virginia stated that as of December 31, 2001, it was providing interim number portability to approximately 300 telephone numbers for six CLECs.[1289]

4. Discussion

On brief, Cavalier accuses Verizon Virginia of "stealing" numbers from Cavalier, which Cavalier defines as the premature taking of a customer's number in a win-back situation.[1290] Cavalier argues that Verizon Virginia's witness agreed that taking numbers early, even in a win-back situation "poses problems for the continuity of service for the end-user, and that's a concern to everyone."[1291] Cavalier then describes an incident involving 500 direct inward dial numbers

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[1281] *Verizon New Jersey Order* at Appendix C ¶ 63; *See* 47 C.F.R. §§ 52.3(b)-(f); *Second BellSouth Louisiana Order* at ¶ 275; *First Number Portability Order* at ¶¶ 3, 91; *Third Number Portability Order* at ¶¶ 12-16.
[1282] *Verizon New Jersey Order* at Appendix C ¶ 63; *See* 47 C.F.R. § 52.29; *Second BellSouth Louisiana Order* at ¶ 275; *First Number Portability Order* at ¶¶ 127-40.
[1283] *Verizon New Jersey Order* at Appendix C ¶ 63; *See* 47 C.F.R. §§ 52.32, 52.33; *Second BellSouth Louisiana Order* at ¶ 275; *Third Number Portability Order* at ¶ 8; *Fourth Number Portability Order* at ¶ 9.
[1284] Exhibit No. 1, ¶ 349.
[1285] *Id.* at ¶ 350.
[1286] *Id.*
[1287] *Id.* at ¶ 351.
[1288] *Id.*
[1289] *Id.* at ¶ 352.
[1290] Cavalier Brief at 19.
[1291] *Id.*; Shockett, Tr. at 126.

that arose "far too late for Cavalier to include in its May 3, 2002 panel testimony."[1292] Cavalier attached two e-mails as "Exhibits" to its brief describing these problems.[1293]

Cavalier failed to present evidence of this issue during the hearing and any evidence or "Exhibits" offered for the first time in its brief cannot be considered as part of the record. Even if such evidence were part of the record, without a showing that Verizon Virginia's processes and procedures are designed to "steal" numbers on a significant and ongoing basis, such evidence would likely have little impact on the determination of whether Verizon Virginia meets the requirements of Checklist Item 11.

In its brief, Cox asserts that the OSS concerns it raised regarding number portability, especially its pre-ordering problems associated with "CSR not found" and the lengthy time it takes to resolve related trouble tickets, renders Verizon Virginia's porting process inconvenient and time-consuming.[1294] Cox contends that such issues are an integral part of number portability; thus Cox takes the position that Verizon Virginia fails to satisfy the requirements of Checklist Item 11.

Verizon Virginia submits that based on Cox complaints concerning CSRs, Verizon Virginia instituted two software fixes to correct the problems.[1295] Further, Cox was unable to provide convincing documentation regarding the magnitude of the problem.[1296]

Based on the overall level of porting provided by Verizon Virginia, on Verizon Virginia's relatively high on-time performance for the provisioning of "LNP Only" orders, and on Verizon Virginia's willingness to correct errors in its system when they are identified, I find that Verizon Virginia meets the requirements of this Checklist Item.

5. Conclusion

Based on the record, I find that Verizon Virginia provides number portability in full compliance with the FCC's regulations in accordance with the requirements of Checklist Item 11.

L. Checklist Item 12 – Dialing Parity

Section 271(c)(2)(B)(xii) requires Verizon Virginia 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 § 251(b)(3) of this title."

[1292] Cavalier Brief at 19.
[1293] *Id.*
[1294] Cox Brief at 39-40.
[1295] Verizon Virginia Brief at 55-56; Exhibit No. 10, at ¶¶ 17-18.
[1296] *See*, *e.g.*, Exhibit No. 10, at ¶ 15.

1. Description

Section 251(b)(3) imposes upon all LECs "[t]he duty to provide dialing parity to competing providers of telephone exchange service and telephone toll service with no unreasonable dialing delays."[1297] Section 153(15) of the Act defines "dialing parity" as "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 designation."[1298]

2. Standard of Review

Based on the FCC's view that § 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 FCC adopted rules in August 1996 to implement broad guidelines and minimum nationwide standards for dialing parity.[1299] The FCC's rules implementing § 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.[1300] Moreover, customers of competing carriers must not otherwise suffer inferior quality service, such as unreasonable dialing delays, compared to the BOC's customers.[1301]

3. Summary of the Evidence Before the Commission

Verizon Virginia presented evidence concerning local dialing parity.

Verizon Virginia – Direct Case

Verizon Virginia contended that it meets this Checklist Item by providing local dialing parity to CLECs that resell its retail service or purchase unbundled local switching, and by providing the information necessary for CLECs with their own switches to implement local dialing parity.[1302] Verizon Virginia claimed that its local dialing parity ensured that a CLEC's customer is not required to dial more digits than a Verizon Virginia end user and that Verizon Virginia does not cause a CLEC's customer to experience post-dialing delay, call completion

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[1297] 47 U.S.C. § 251(b)(3).
[1298] *Id.* § 153(15).
[1299] *Local Competition Second Report and Order* at ¶ 25; *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); *See Verizon New Jersey Order* at n.811.
[1300] 47 C.F.R §§ 51.205, 51.207; *See Verizon New Jersey Order* at Appendix C ¶ 65.
[1301] *See* 47 C.F.R. § 51.207 (requiring same number of digits to be dialed); *Local Competition Second Report and Order* at ¶¶ 5, 15; *Verizon New Jersey Order* at Appendix C ¶ 65.
[1302] Exhibit No. 1, at ¶ 354.

rate or transmission quality that is inferior to that experienced by a Verizon Virginia end user.[1303] Verizon Virginia disclosed that it provides local dialing parity at no additional charge to CLECs.[1304] Verizon Virginia stated that from January through December 2001, Verizon Virginia exchanged over 14.2 billion minutes of traffic with CLECs over local interconnection trunks – all completed with local dialing parity.[1305]

4. Discussion

No party questions whether Verizon Virginia provides local dialing parity as required by Checklist Item 12.

5. Conclusion

Based on the record, I find that Verizon Virginia provides nondiscriminatory access to such services and information as are necessary to allow the requesting carrier to implement local dialing parity in accordance with the requirements of § 251(b)(3) as required by Checklist Item 12.

M. Checklist Item 13 – Reciprocal Compensation

Section 271(c)(2)(B)(xiii) requires Verizon Virginia to provide reciprocal compensation arrangements in accordance with the requirements of § 252(d)(2).

1. Description and Standard of Review

Pursuant to § 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."[1306]

2. Summary of the Evidence Before the Commission

Verizon Virginia, Cavalier, Cox, and WorldCom presented evidence concerning reciprocal compensation.

[1303] *Id.* at ¶ 355.
[1304] *Id.* at ¶ 357.
[1305] *Id.* at ¶ 358.
[1306] 47 U.S.C.S. § 252(d)(2)(A).

Verizon Virginia – Direct Case

Verizon Virginia argued that the FCC has held that traffic bound for the Internet, and other types of traffic excluded by Section 251(g), are not subject to reciprocal compensation.[1307]

Verizon Virginia contended that it offers reciprocal compensation to CLECs for the termination of traffic from Verizon Virginia customers that is subject to reciprocal compensation under the Act.[1308] Conversely, these arrangements obligate CLECs to compensate Verizon Virginia for completing traffic from CLEC customers.[1309] Furthermore, Verizon Virginia explained that it assumes that any traffic that exceeds a 3:1 ratio of terminating to originating is Internet-bound traffic.[1310] Verizon Virginia stated that as of December 31, 2001, it was paying reciprocal compensation to 17 CLECs.[1311]

Cavalier

The Cavalier Panel testified that Verizon Virginia is avoiding its obligation to comply with the reciprocal compensation requirements of the Act by not paying for the transport of its traffic when utilizing the network and transport facilities of a CLEC to complete the further transport of its traffic.[1312]

Cox

Cox witness Clarke claimed that Verizon Virginia has changed the way it pays reciprocal compensation to Cox.[1313] Ms. Clarke stated that the change happened after the term of its initial interconnection agreement expired, even though the two companies have continued to operate under that agreement.[1314] More specifically, Ms. Clarke contended that Verizon Virginia unilaterally imposed the FCC's formula for phasing down the payment of reciprocal compensation for ISP-bound traffic.[1315] Ms. Clarke maintained that this formula should be imposed only on traffic in new interconnection agreements signed after July 2001.[1316]

Ms. Clarke pointed out that the Commission previously addressed the issue of reciprocal compensation to Internet service provider ("ISP")-bound traffic as it relates to Cox's interconnection agreement in Case No. PUC-1997-00069, in which the Commission determined that compensation should be paid. Ms. Clarke stated that because Verizon Virginia is not

[1307] Exhibit No. 1, at ¶ 360.
[1308] *Id.* at ¶ 361.
[1309] *Id.*
[1310] *Id.*
[1311] *Id.* at ¶ 362.
[1312] Exhibit No. 72, at 65-66.
[1313] Exhibit No. 70, at 11-12.
[1314] *Id.* at 11.
[1315] *Id.*
[1316] *Id.*

complying with a standing Commission order on this particular agreement, Verizon Virginia is not in compliance with this Checklist Item.[1317]

Ms. Clark concluded that the "Commission should order Verizon [Virginia] to follow the Commission's interpretations and requirements promulgated under its interpretation of the parties' Agreement, including the Commission's requirement concerning ISP-bound traffic."[1318]

AT&T

AT&T witness Kirchberger noted that Verizon Virginia does not identify how many of the over 14 million minutes that it claims it exchanged with CLECs were calls to ISPs for which Verizon Virginia refuses to pay reciprocal compensation.[1319]

WorldCom

As described above, WorldCom witness Freifeld advised this Commission that WorldCom has an arbitration pending before the FCC, which has open issues related to some of the competitive Checklist Items.[1320] Pending in this arbitration is whether Verizon Virginia must pay the end office rate or tandem rate for transport and termination of Verizon Virginia's originating traffic.[1321] Mr. Freifeld advised that because of this open issue, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 13.[1322]

3. Discussion

Verizon Virginia advises that it meets this Checklist Item by offering reciprocal compensation arrangements to CLECs, pursuant to interconnection agreements in accordance with applicable law.[1323]

Cavalier raises its GRIPs issue, which is dealt with in the Discussion section of Checklist Item 1. Likewise, WorldCom's FCC arbitration issue is addressed in the Discussion section of Checklist Item 1.

On brief, Cox cites to the *Verizon Massachusetts Order* in which the FCC held that to satisfy Checklist Item 13, a BOC was required to follow a state's decision on ISP- bound traffic.[1324] However, Cox acknowledges that in more recent decisions the FCC has not

[1317] *Id*. at 11-12.
[1318] *Id.* at 12.
[1319] Exhibit No. 95, at 9.
[1320] Exhibit No. 65.
[1321] *Id.* at ¶ 29.
[1322] *Id.* at ¶ 30.
[1323] Verizon Virginia Brief at 51.
[1324] Cox Brief at 40; *Verizon Massachusetts Order* at ¶ 217.

conditioned Checklist Item 13 on compliance with state decisions on ISP-bound traffic.[1325] Cox affirms that until recently Verizon paid reciprocal compensation on local ISP-bound traffic terminated by Cox.[1326] Though the Commission-interpreted interconnection agreement continues to be in effect, Verizon Virginia has imposed the FCC's formula for phasing down the payment of reciprocal compensation for ISP-bound traffic.[1327] The two parties now dispute whether there has been a "change of law" and whether there has been a breach of the interconnection agreement.[1328] Verizon Virginia argues that because the parties are addressing the dispute pursuant to the dispute resolution provisions of their interconnection agreement, this issue need not, and should not be addressed in this proceeding.[1329]

In two recent § 271 decisions, the FCC has ruled that whether a BOC pays reciprocal compensation for ISP-bound traffic is not relevant to compliance with Checklist Item 13. For example, in its *Verizon New Jersey Order* the FCC stated:

> AT&T and XO also argue that Verizon's refusal to pay reciprocal compensation for Internet-bound traffic violates checklist item 13. The [FCC] previously determined that whether a BOC pays reciprocal compensation for Internet-bound traffic "is not relevant to compliance with checklist item 13." In addition, as the New Jersey Board stated, allegations "that [competitive LECs] are entitled, under their interconnection agreements, to reciprocal compensation for Internet-bound traffic are already the subject of pending complaint proceedings . . . . [and] will be resolved by the Board in due course." There is no evidence on the record before us that warrants our interfering with these ongoing state proceedings. We therefore reject XO and AT&T's claims concerning reciprocal compensation for Internet-bound traffic.[1330]

Nothing in the record in this case supports a different result from that the FCC determined in New Jersey. Therefore, I find that whether Verizon Virginia pays reciprocal compensation for ISP-bound traffic is not determinative of Verizon Virginia's compliance with Checklist Item 13.

4. Conclusion

Based on the record and applicable FCC precedent, I find that Verizon Virginia provides reciprocal compensation arrangements in accordance with the requirements of § 252(d)(2) in compliance with the requirements of Checklist Item 13.

[1325] Cox Brief at 40.
[1326] *Id.* at 41; Exhibit No. 70, at 11-12.
[1327] *Id.*
[1328] Cox Brief at 42; Verizon Virginia Brief at 52.
[1329] Verizon Virginia Brief at 52.
[1330] *Verizon New Jersey Order* at ¶ 160 (footnotes omitted).

N. Checklist Item 14 – Resale

Section 271(c)(2)(B)(xiv) requires Verizon Virginia to make telecommunications services available for resale in accordance with §§ 251(c)(4) and 252(d)(3).

1. Description

Section 251(c)(4)(A) requires incumbent LECs "to offer for resale at wholesale rates any telecommunications service that the carrier provides at retail to subscribers who are not telecommunications carriers."[1331] Section 252(d)(3) requires state commissions to "determine wholesale rates on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the local exchange carrier."[1332] Section 251(c)(4)(B) prohibits "unreasonable or discriminatory conditions or limitations" on service resold under section 251(c)(4)(A).[1333]

2. Standard of Review

FCC concluded in the *Local Competition First Report and Order* that resale restrictions are presumed to be unreasonable unless the LEC proves to the state commission that the restriction is reasonable and nondiscriminatory.[1334] The Eighth Circuit acknowledged the FCC's authority to promulgate such rules, and specifically upheld the sections of the FCC's rules concerning resale of promotions and discounts.[1335] However, if an incumbent LEC makes a service available only to a specific category of retail subscribers, a state commission may prohibit a carrier that obtains the service pursuant to § 251(c)(4)(A) from offering the service to a different category of subscribers.[1336] If a state creates such a limitation, it must do so consistent with requirements established by the FCC.[1337] In accordance with sections 271(c)(2)(B)(ii) and 271(c)(2)(B)(xiv), a BOC must also demonstrate that it provides nondiscriminatory access to operations support systems for the resale of its retail telecommunications services.[1338] The obligations of § 251(c)(4) apply to the retail telecommunications services offered by a BOC's advanced services affiliate.[1339]

[1331] *See*, *Verizon New Jersey Order* at Appendix C ¶ 67.
[1332] *Id*.
[1333] *Id*.
[1334] *Local Competition First Report and Order* at ¶ 939; 47 C.F.R. § 51.613(b); *See Verizon New Jersey Order* at Appendix C ¶ 67.
[1335] *Iowa Utils. Bd. v. FCC*, 120 F.3d at 818-19, *aff'd in part and remanded on other grounds*, *AT&T v. Iowa Utils. Bd.*, 525 U.S. 366 (1999); *See also* 47 C.F.R. §§ 51.613-51.617; *Verizon New Jersey Order* at n.822.
[1336] 47 U.S.C. § 251(c)(4)(B); *See Verizon New Jersey Order* at Appendix C ¶ 67.
[1337] *Id.*
[1338] *Verizon New Jersey Order* at Appendix C ¶ 67; s*ee, e.g.*, *Bell Atlantic New York Order* at ¶¶ 178-81 (Bell Atlantic provides nondiscriminatory access to its OSS ordering functions for
(continued . . . .)

3. Summary of the Evidence Before the Commission

Verizon Virginia and WorldCom presented evidence concerning resale.

Verizon Virginia – Direct Case

Verizon Virginia asserted that it meets this Checklist Item by offering CLECs the opportunity to resell, at wholesale rates established by the Commission, all of the telecommunications services Verizon Virginia provides at retail to customers who are not telecommunication carriers.[1340] Verizon Virginia stated that as of December 31, 2001, there were more than 94,000 resold lines in service in Virginia.[1341]

The Commission has determined the wholesale discount off retail rates to be 18.50% if Verizon Virginia provides operator and directory services, and 21.30% if the reseller elects to provide its own operator and directory assistance services.[1342] However, Verizon Virginia acknowledged that as a condition of the FCC's approval of the merger between Bell Atlantic and GTE, Verizon Virginia currently offers a 32% discount rate, for a limited period of time, on resold residential lines ordered after the Merger Close Date and during the Offering Window.[1343]

Verizon Virginia affirmed that it provides extensive support for CLECs that wish to resell its telecommunications services. Resellers have access to Verizon Virginia's OSS for pre-ordering and ordering activities, submitting and managing trouble reports, and receiving technical assistance on a 24/7 basis.[1344]

Verizon Virginia contended that the only restrictions it places on the resale of its services are those authorized expressly by the FCC or Commission.[1345] Verizon Virginia listed the following examples of authorized restrictions: (i) resold service is available only to customers eligible to subscribe to the retail service; (ii) grandfathered retail service may be resold only to

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(Continued from previous page)
resale services and therefore provides efficient competitors a meaningful opportunity to compete).

[1339] *Verizon New Jersey Order* at Appendix C ¶ 67; s*ee Application of Verizon New York Inc., Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc. and Verizon Select Services, Inc. for Authorization to Provide In-Region, InterLATA Services in Connecticut*, CC Docket 01-100, Memorandum Opinion and Order, 16 FCC Rcd 14147, 14160-63, ¶¶ 27-33 (2001) ("*Verizon Connecticut Order*"); *Association of Communications Enterprises v. FCC*, 235 F.3d 662 (D.C. Cir. 2001).

[1340] Exhibit No. 1, at ¶ 364.

[1341] *Id.* at ¶ 367.

[1342] *Id.* at ¶ 371.

[1343] *Id.* at ¶ 372.

[1344] *Id.* at ¶ 373.

[1345] *Id.* at ¶ 376.

customers who already subscribe to the service; and (iii) the wholesale discount is not applied to promotional offerings available for 90 days or less.[1346]

Finally, Verizon Virginia claimed that its C2C reports for November 2001, December 2001, and January 2002, show that it is providing resold services at parity with Verizon Virginia's retail operations.[1347]

WorldCom

As described above, WorldCom witness Freifeld advised this Commission that WorldCom has an arbitration pending before the FCC, which has open issues related to some of the competitive Checklist Items.[1348] Pending in this arbitration is whether Verizon Virginia may prohibit resale where WorldCom uses another service delivery method, such as UNEs, to serve a portion of that customer's telecommunications needs.[1349] Mr. Freifeld advised that because of this open issue, the Commission should refrain from expressing an opinion on Verizon Virginia's compliance with Checklist Item 6.[1350]

4. Discussion

The only issue related to resale is WorldCom's FCC arbitration issue, which is dealt with in the Discussion section of Checklist Item 1.

5. Conclusion

Based on the record, I find that Verizon Virginia makes its telecommunications services available for resale in accordance with §§ 251(c)(4) and 252(d)(3) in compliance with the requirements of Checklist Item 14.

VII. PUBLIC INTEREST ANALYSIS

Section 271(d)(3)(C) directs the FCC to determine if "the requested authorization is consistent with the public interest, convenience, and necessity."

1. Description

Section 271(d)(2)(B) directs the FCC to consult with state commissions regarding only compliance with the requirements of § 271(c). However, from a practical perspective, the record developed by this Commission will be used by the FCC to determine if Verizon Virginia's entry

[1346] *Id.* at ¶¶ 377-79.
[1347] *Id.* at ¶¶ 381-86.
[1348] Exhibit No. 65.
[1349] *Id.* at ¶ 32
[1350] *Id.* at ¶ 34.

into the interLATA long distance market in Virginia is in the public interest. Thus, parties to this proceeding have been permitted to build a record concerning public interest.

2. Standard of Review

The FCC has held that compliance with the competitive checklist is itself a strong indicator that long distance entry is consistent with the public interest.[1351] This approach reflects the FCC's many years of experience with the consumer benefits that flow from competition in telecommunications markets.[1352]

Nonetheless, the public interest analysis is an independent element of the statutory checklist and, under normal canons of statutory construction, requires an independent determination.[1353] For example, Congress specifically rejected an amendment that would have stipulated that full implementation of the checklist necessarily satisfies the public interest criterion.[1354] Thus, the FCC views 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.[1355] Among other things, the FCC may review the local and long distance markets to ensure that there are no unusual circumstances that would make entry contrary to the public interest under the particular circumstances of the application at issue.[1356] Another factor that could be relevant to the analysis is whether the FCC has sufficient assurance that markets will remain open after grant of the application.[1357] While no one factor is dispositive in this analysis, the overriding goal is to ensure that nothing undermines the conclusion, based on the FCC's analysis of checklist compliance, that markets are open to competition.[1358]

3. Summary of the Evidence Before the Commission

Two public witnesses, Cavalier, AT&T, and Verizon Virginia presented testimony concerning the public interest.

[1351] *Verizon New Jersey Order* at Appendix C ¶ 70.
[1352] *Id.*
[1353] *Id.* at Appendix C ¶ 71.
[1354] *Id.* at n.835; *See Ameritech Michigan Order* at ¶¶ 360-66; *See also* 141 Cong. Rec. S7971, S8043 (June. 8, 1995).
[1355] *Verizon New Jersey Order* at Appendix C ¶ 71.
[1356] *Id.*; s*ee Second BellSouth Louisiana Order* at ¶ 360 (the public interest analysis may include consideration of "whether approval . . . will foster competition in all relevant telecommunications markets").
[1357] *Verizon New Jersey Order* at Appendix C ¶ 71.
[1358] *Id.*

Public Witnesses

Brian Barrier of Richmond, Virginia, described the bumpy, unpleasant road to being connected with Cavalier's DSL service.[1359] Mr. Barrier testified that because of poor customer service by Verizon Virginia, he was without service.[1360] Mr. Barrier claimed that Verizon Virginia technicians missed several appointments.[1361] After his DSL service was installed, Mr. Barrier reported that Verizon Virginia cut off his telephone service in anticipation of the start date for his DSL service.[1362]

Kathy Regester of Richmond, Virginia, testified concerning problems she has experienced as an employee of Ruffin & Payne, Incorporated ("Ruffin & Payne") since April 30, 2002.[1363] Since then, Ms. Regester stated that Ruffin & Payne's phone service was out on April 30 through May 1, 2002, and on June 6, 2002.[1364] Ms. Regester requested some type of grievance procedure for consumers "that's not so much red tape involved."[1365] Ms. Regester described other problems she experienced when she sold her home and Verizon Virginia refused to connect the new owner until her phone service from Cavalier was disconnected.[1366] In addition, Ms. Regester was told that she was unable to get Cavalier phone service at her newly constructed home until she first called Verizon Virginia for service. Even then, Ms. Regester explained that she was without phone service for several days at both her old home and her new home.[1367]

Cavalier

Cavalier witness Clift stated that the chaos resulting from Verizon Virginia's exploits has forced several CLECs into bankruptcy.[1368] He listed several CLECs that either are either in or are on the verge of being bankrupt, including Ambrose, Ntgrity, Mpower, Broadslate, Adelphia, Espire, XO, PICUS, Net2000, and McLeod.[1369] Mr. Clift opined that these CLECs made two mistakes: (i) they relied upon Verizon Virginia's self-designed and self-policed OSS that proved unworkable; and (ii) they assumed that regulators would enforce the 1996 Telecom Act more vigorously.[1370] Mr. Clift characterized Verizon Virginia's OSS system as being designed to put the CLECs out of business by preventing CLECs from delivering services in a timely and

[1359] Barrier, Tr. at 49.
[1360] *Id.*
[1361] *Id.* at 49-51.
[1362] *Id.* at 51.
[1363] Regester, Tr. at 53.
[1364] *Id.* at 53-56.
[1365] *Id.* at 56.
[1366] *Id.* at 57-58.
[1367] *Id.* at 59-60.
[1368] Exhibit No. 77, at 1.
[1369] *Id.* at 1-4.
[1370] *Id*. at 4.

efficient manner.[1371] Mr. Clift explained that both SBC and Verizon, as part of their respective merger conditions, were to begin CLEC operations out of region.[1372] Mr. Clift contended that SBC has given up because it knows that "there is no money in it" and because it cannot deal with Verizon's OSS systems.[1373]

Mr. Clift stated that customers go through many trials and tribulations to have their telephone service converted to a CLEC.[1374] He presented a simple analysis Cavalier performed to compare ordering a second line from Cavalier versus Verizon Virginia, which demonstrated that Cavalier's service could be added within 10-15 business days and Verizon Virginia's within three days.[1375] Mr. Clift argued that Cavalier is forced to play a fishing game because it has no idea when or whether Verizon Virginia will deliver an unbundled loop.[1376]

Mr. Clift testified that Cavalier keeps a "void" orders log that describes why customers cancel orders with Cavalier.[1377] Mr. Clift reported that in January 2002, Cavalier had 113 customers cancel orders due to excessive wait times for installation, 101 in February and 130 in March.[1378]

Mr. Clift concluded that Cavalier cannot come close to providing service at parity with Verizon Virginia.[1379]

AT&T

AT&T witness Kirchberger testified concerning the status of both local and interexchange competition in Virginia, including in the former GTE territory.[1380] Regarding the status of local competition in Virginia, Mr. Kirchberger asserted that Verizon Virginia's existing UNE prices are too high to support competitive entry, its OSS are not yet performing as they should, its PAP will not be implemented until after Verizon Virginia enters long distance competition, and flow-through thresholds have been lowered until year end 2002.[1381] Mr. Kirchberger considered each of these factors a deterrent to local competition in Virginia.[1382] Furthermore, Mr. Kirchberger contended the Woltz Declaration lists only twelve major facilities-based carriers, which shrinks to only eight when considering that three of the carriers listed, MCI WorldCom, Adelphia, and XO are now in or on the verge of bankruptcy; Verizon Virginia

[1371] *Id.* at 4-5.
[1372] *Id.* at 5.
[1373] *Id.*
[1374] *Id.* at 6.
[1375] *Id.*; Exhibit No. 78.
[1376] Exhibit No. 77, at 7.
[1377] *Id.*
[1378] *Id.*; Exhibit No. 78.
[1379] *Id.* at 8.
[1380] Exhibit No. 95.
[1381] *Id.* at ¶ 3.
[1382] *Id.*

witness Woltz failed to highlight or describe any other appreciable competitive presence in Virginia.[1383]

Mr. Kirchberger contended that the level of local competition in Virginia is scant when compared to that of other states.[1384] Mr. Kirchberger highlighted that as of the end of 2001, according to Verizon Virginia, there were only 8,200 UNE-P in Virginia, which pales in comparison to over a million UNE-Ps in Verizon's New York territory.[1385] Furthermore, Mr. Kirchberger asserted that there are no CLECs collocated in nearly 70% of Verizon Virginia's central offices.[1386] Mr. Kirchberger questioned whether the collocations established in Verizon Virginia's central offices are all actually used for local competition.[1387] Mr. Kirchberger affirmed that some carriers, including AT&T, are eliminating collocation arrangements as markets deteriorate.[1388]

Mr. Kirchberger argued that the "widespread CLEC" entry referenced by Mr. Woltz was not sufficient to prevent Verizon Virginia from adding access lines from 1995-2000, that eclipsed the number of lines added by all CLECs.[1389] Mr. Kirchberger observed that Verizon Virginia's loss of lines in 2001 was a result of the economic downturn, not CLEC activity.[1390]

As to the former GTE territory, Mr. Kirchberger stated that the FCC found the Act gave it no authority to require that the 14-point checklist be applied to the former GTE territories, now under Verizon Virginia.[1391] Consequently, Mr. Kirchberger stressed that only this Commission has the authority to require such enforcement as a pre-condition to § 271 authority.[1392] Mr. Kirchberger urged the Commission to ensure that in the former GTE territories in Virginia, Verizon provides: (i) UNEs and interconnection at rates comparable to Verizon Virginia, (ii) the same OSS interfaces as in the former Bell Atlantic territories, and (iii) the same measurements of OSS performance and remedies for non-performance as in the former Bell Atlantic territories.[1393]

As to long distance competition, Mr. Kirchberger asserted that the addition of Verizon Virginia to the hundreds of long distance companies currently offering service in Virginia will add little to the already attractive rates available to consumers.[1394] Mr. Kirchberger termed

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[1383] *Id.* at ¶ 6.
[1384] *Id.* at ¶ 7.
[1385] *Id.*
[1386] *Id.* at ¶ 8.
[1387] *Id.*
[1388] *Id*.
[1389] *Id.* at ¶ 10.
[1390] *Id*.
[1391] *Id.* at ¶ 13.
[1392] *Id.* at ¶ 14.
[1393] *Id*. at ¶ 17.
[1394] *Id*. at ¶¶ 21-22.

Verizon Virginia's studies showing that the long distance market is not competitive to be flawed.[1395]

Mr. Kirchberger concluded that: (i) Verizon Virginia is wrong in its assertions of local exchange competition in Virginia; (ii) Verizon Virginia is equally wrong in its assertions that benefits will occur with its entry into long distance; and (iii) Verizon Virginia's § 271 application should not be endorsed by this Commission until Verizon Virginia demonstrates it has opened its local exchange markets to competition, including the former GTE territory.[1396]

AT&T also filed the Supplemental Declaration of Robert J. Kirchberger.[1397] After examining data disclosing competition at the wire center level, Mr. Kirchberger affirmed that local competition is not nearly as prevalent in Virginia as Verizon Virginia would have the Commission believe.[1398] Mr. Kirchberger detailed how the vast majority of local competition is concentrated in about 20% of Verizon Virginia's wire centers.[1399]

In addition, AT&T filed the testimony of Dr. Lee L. Selwyn, president of Economic and Technology, Inc.[1400] Dr. Selwyn asserted that studies from the Telecommunications Research and Action Center ("TRAC") reach spurious and results-driven conclusions.[1401] Dr. Selwyn accused TRAC of being funded, at least in part, by Verizon Virginia, and therefore that studies conducted by TRAC will be biased in favor of Verizon Virginia.[1402] According to Dr. Selwyn, TRAC's results are based upon a highly unfair, distorted, and inconsistent comparison of Verizon and IXC pricing.[1403] Dr. Selwyn explained that TRAC compares the best Verizon long distance rates with IXC industry average rates (an average of the highest priced competitor and the lowest priced competitor).[1404] Dr. Selwyn pointed out that TRAC's methodology could be used to show that any one carrier's best rates were better than an industry average and should not be used to demonstrate that Verizon Virginia's entry into the interLATA market would produce any net benefit or otherwise be in the public interest.[1405]

Dr. Selwyn provided his own analysis of Qwest's comments to the FCC supporting Verizon New Jersey's § 271 application.[1406] Dr. Selwyn concluded that the Hausman/Sidak study is a "woefully misspecified" model that fails to demonstrate the income/education versus

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[1395] *Id.* at ¶¶ 23-27.
[1396] *Id*. at ¶ 28.
[1397] Exhibit Nos. 96P and 97.
[1398] Exhibit No. 97, at ¶ 2.
[1399] Exhibit Nos. 96P and 97.
[1400] Exhibit No. 92.
[1401] *Id.* at ¶ 3.
[1402] *Id.*
[1403] *Id*. at ¶ 16.
[1404] *Id*. at ¶ 19.
[1405] *Id*. at ¶ 23.
[1406] *Id.* at ¶¶ 24-37.

price relationship asserted by the authors.[1407] Dr. Selwyn maintained that the principal statistical test used to assess the overall explanatory power of the model, the coefficient of determination, shows that the model explains only 1.4% of the variation in the price of long distance calling.[1408] Dr. Selwyn provided an analysis of a Hausman/Sidak/Leonard study regarding consumer welfare benefits from lower long distance prices in New York and Texas.[1409] Dr. Selwyn observed that no source for data is provided regarding the empirical analysis upon which their conclusion is founded.[1410] Dr. Selwyn concluded that there is no valid scientific basis for their theory of consumer welfare, which is devoid of credibility and fails to demonstrate that BOC entry into in-region long distance is in the public interest.[1411]

Dr. Selwyn stated that Verizon Virginia's use of the inbound or joint marketing channel to "sell" long distance represents a substantial potential for it to remonopolize the long distance market.[1412] Dr. Selwyn presented a "dynamic model of market behavior" to test his assertion.[1413] Dr. Selwyn explained that his model was based upon actual experience in New York and Texas following the BOC's entry into long distance.[1414] Dr. Selwyn designed his model to provide several scenarios with varying market shares for Verizon Virginia and the CLECs.[1415] Dr. Selwyn concluded that Verizon Virginia's ability to exploit its captive relationship with the majority of local services customers through its joint marketing channels will ensure that its market share in long distance will grow rapidly and non-BOC IXCs will suffer a precipitous decline in customers and demand, thereby diminishing competition and potentially resulting in remonopolization of the Virginia LD market.[1416]

4. Discussion

On brief, Verizon Virginia argues that § 271(d)(3)(C) calls upon the FCC to determine whether long distance entry "is consistent with the public interest, convenience, and necessity."[1417] Moreover, Verizon Virginia asserts that if this Commission were to undertake a public interest analysis, such analysis under the Act is limited by FCC precedent.[1418]

In its brief, AT&T contends that Verizon Virginia has failed to show that all of its markets are irreversibly open to competition and that grant of § 271 authority would be in the

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[1407] *Id*. at ¶ 38.
[1408] *Id*. at ¶ 42.
[1409] *Id.* at ¶ 54.
[1410] *Id*.
[1411] *Id*. at ¶ 64.
[1412] *Id*. at ¶ 65.
[1413] *Id.* at ¶ 69.
[1414] *Id.*
[1415] *Id*. at ¶ 73.
[1416] *Id*. at ¶¶ 80, 82.
[1417] Verizon Virginia Brief at 83.
[1418] *Id.* at 83-84.

public interest.[1419] AT&T urges this Commission to ensure that competition extends to all of Virginia, including the former GTE territory in Virginia.[1420] In regards to the former GTE territory, AT&T argues that though the FCC may be "powerless to review Verizon Virginia's progress – or lack of progress – in opening the former GTE territory to competition, this Commission, acting under the broad powers extended to it under Virginia law, has both the power and the responsibility . . ."[1421] In addition, AT&T maintains that local exchange competition in Verizon Virginia's territory is not evident in most areas as it is limited to Northern Virginia, Richmond and Tidewater.[1422] Finally, AT&T contends that consumers in Virginia will reap no significant benefits from Verizon Virginia's entry into the Virginia interLATA market.[1423]

In its brief, the Attorney General advises "that in competitive markets, consumers are best protected by having as many choices as possible."[1424] Consequently, the Attorney General "urges the Commission to take the steps necessary to advance Verizon [Virginia]'s petition before the FCC for [Verizon Virginia] to enter the long distance market."[1425]

This case has focused on the performance of Verizon Virginia within the former Bell Atlantic area. The record does not address either the quality of service or level of competition in the former GTE territory. This limitation of the record in this proceeding should not be read to indicate any lack of interest or concern by this Commission regarding the quality of service or level of competition in the former GTE territory. Such issues may be addressed in other proceedings. Prior to the GTE-Bell Atlantic merger, GTE customers were able to choose GTE as their long distance carrier. After the GTE-Bell Atlantic merger, these former GTE customers were unable to continue to use GTE, now Verizon South, as their long distance carrier. Approval of Verizon Virginia's § 271 application will restore to the former GTE customers the option of choosing their local service provider as their long distance provider.

As to competition throughout all of Verizon Virginia's service territory, as Verizon Virginia witness Woltz pointed out:

> Competitors can go where they want to and have, based on their choices, not based on direction from Verizon. They have, through the offices, they have chosen to go to collocation access to 87 percent of Verizon Virginia's access lines. They have UNE loops in offices serving 86 percent of Verizon Virginia access lines.

[1419] AT&T Brief at 19-23.
[1420] *Id.* at 23-28.
[1421] *Id.* at 28.
[1422] *Id.* at 28-33.
[1423] *Id.* at 34-40.
[1424] Attorney General Brief at 9.
[1425] *Id.*

> They have more than 25 UNE-Ps in offices serving more than 83 percent of Verizon Virginia's access lines.[1426]

Further, both AT&T and Verizon Virginia seemed to agree that the lack of active facilities-based competition to the more rural areas of Virginia was a function of the relatively low retail rates enjoyed by such customers and the relatively higher cost to serve those customers.[1427] Thus, the geographic dispersion of facilities-based competition appears to be of little probative value to the general types of analysis addressed by § 271. Indeed, the FCC has rejected such arguments.[1428] I agree such evidence should not be read to deny Verizon Virginia's § 271 application.

As outlined in the standards section above, a factor that could be relevant to the public interest analysis is whether the FCC has sufficient assurance that markets will remain open after grant of the application.[1429] As discussed above, this Commission has determined that it cannot waive the Commonwealth's sovereign immunity. The practical consequence of this is that the FCC must take a more active role in arbitrating interconnection disputes and deciding other matters that normally fall to state commissions. CLECs have raised several issues related to this situation. For example, NTELOS made the following request:

> [T]he decision by the FCC in [pending] arbitrations will directly impact the ability of CLECs to compete in Virginia. While the Supreme Court recently upheld the TELRIC pricing methodology, the FCC has yet to render a decision on the arbitration cases. This uncertainty regarding the appropriate TELRIC rate for UNEs will only increase as more interconnection agreements expire and CLECs enter into new negotiations with Verizon [Virginia]. Based upon when its current agreement expires, NTELOS expects to soon open negotiations with Verizon [Virginia]. The FCC's decision on pricing of UNEs in Virginia will be binding in those negotiations. NTELOS recommends that, at the very least, the SCC include as part of its decision in this proceeding, an urgent

[1426] Woltz, Tr. at 1000-01.
[1427] AT&T Panel, Tr. at 1216-19; Woltz, Tr. at 1278-79.
[1428] *See*, *Verizon New Jersey Order* at ¶¶ 169-75.
[1429] *Verizon New Jersey Order* at Appendix C ¶ 71.

request that the FCC expeditiously complete its deliberations on the pending arbitrations.[1430]

5. Conclusion

No party in this case has raised a public interest concern that leads this Commission to question whether Verizon Virginia's application is in the public interest, convenience, and necessity in accordance with § 271(d)(3)(C).

[1430] NTELOS Brief at 6.

VIII. FINDINGS AND RECOMMENDATIONS

In conclusion, based on the evidence and for the reasons set forth above, I find that:

1. Verizon Virginia meets the requirements of 47 U.S.C. § 271(c)(1)(A) to enter into interconnection agreements with CLECs;

2. Verizon Virginia currently complies with each of the fourteen Checklist Items listed in 47 U.S.C. § 271(c)(2)(B);

3. The Commission should advise the FCC it supports granting Verizon Virginia authority to provide in-region interLATA services in Virginia;

4. The Commission should advise the FCC that Verizon Virginia's "no construction" policy as applied in regards to DS-1 Loops has a significant and adverse effect on competition in Virginia, is inconsistently applied across UNEs, is at odds with industry accounting rules, and is inconsistent with the pricing of unbundled network elements; and

5. The Commission should advise Verizon Virginia that it supports Cox's requested improvements to the Line Verification Report and that Verizon Virginia should reflect the Commission's support in its Change Management Process.

In accordance with the above findings, ***I RECOMMEND*** that the Commission advise the FCC that it adopts the findings and discussions of this report.

Respectfully submitted,

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Alexander F. Skirpan, Jr.
Hearing Examiner