now reside in the relevant databases.[1573]

612. In support of this contention, AT&T/WorldCom cite Verizon's own claim that, for 90 percent of recent orders, LFACS contained all needed loop detail, and note that Verizon assumes further improvement to 96 percent (*i.e.*, four percent "fallout").[1574] These parties argue that Verizon's new MLQ Database, however, does not include the information that they need and assert that it actually was designed and developed only to meet the needs of Verizon's own retail DSL operations.[1575] AT&T/WorldCom request read-only electronic access to Verizon's existing databases (which Verizon states it has now made available): "All that competitors seek is to have read-only access to [the] underlying data ... in LFACS and similar databases."[1576]

613. The competitive LECs argue that, when necessary loop qualification data are missing, Verizon should promptly correct its database(s) and "provide the information to the requesting carrier, in an expeditious manner, without new charges being imposed on the competitor."[1577] In other words, Verizon need not fully populate its database, but it should be required to supply missing information promptly at no charge when it is needed. "To the extent that information needed for loop qualification resides only in Verizon's 'plats' (which are paper plant records), rather than in electronic databases, it reflects Verizon's failure to populate its databases as it should have given the upgrades that Virginia ratepayers have been funding for years."[1578]

614. AT&T/WorldCom also argue that Verizon's proposed NRCs for the Manual Loop Qualification and the Engineering Query create the wrong incentives: "As long as Verizon can pass along to its competitors the cost of whatever manual, short-run processes it imposes, the company will have every incentive to delay implementation of more efficient, electronic interfaces."[1579] Should we find some recovery appropriate for manual loop qualification and engineering queries, these parties assert that their NRC Model can be used to set rates for these processes.[1580]

[1573] AT&T/WorldCom Ex. 13, at 165.

[1574] AT&T/WorldCom Ex. 21, at 62.

[1575] AT&T/WorldCom Ex. 13, at 159.

[1576] *Id.* at 160.

[1577] *Id.* at 166.

[1578] *Id.* at 165.

[1579] *Id.* at 164.

[1580] AT&T/WorldCom Ex. 21, at 56.

3. Discussion

615. As discussed below, we reject some of Verizon's proposed loop qualification charges and substantially reduce other such charges. We agree with AT&T/WorldCom that, if Verizon had followed standard practices or its own procedures, it would have populated the LFACS database much more fully. Thus, if adopted, Verizon's proposed loop qualification charges would recover costs made necessary by its own failures. The proposed charges also reflect some inefficient manual procedures and other procedures designed primarily for Verizon's own retail purposes. We do not believe that an efficient, forward-looking network would incur such costs and, accordingly, Verizon should not be permitted to impose the associated charges on its competitors.

616. We agree with AT&T/WorldCom that the MLQ Database is of limited value to competitive LECs and appears to have been designed primarily for Verizon's retail xDSL operations. Although Verizon evidently intends to offer only limited, basic forms of xDSL, competitive LECs may wish to offer more advanced forms and thus require more loop makeup detail. Accordingly, we reject Verizon's proposed recurring charge.[1581]

617. With respect to the Manual Loop Qualification and Engineering Query NRCs, assuming competitive LECs do now have full electronic access to the data in LFACS, as Verizon indicates in the record, the need for manual qualification should be fairly rare. We take notice of the finding of the New York Commission that, if Verizon had followed its own procedures in recent decades, LFACS would contain the needed data for a higher proportion of orders.[1582] Thus, allowing Verizon to impose its proposed manual charges would permit it to impose the costs of its own inefficiency on its competitors and does not provide proper incentives to develop efficient procedures.

[1581] There are, moreover, a number of difficulties with Verizon's computation of the proposed charge. For example, amortization over 30 months assumes that neither Verizon nor another carrier will ever use the line for DSL services again, which seems unlikely. If we were to conclude that Verizon's proposed charges reflect more than mere corrections of Verizon's past failures to follow its own stated procedures, they should be viewed as something in the nature of a permanent improvement that should be amortized over a substantially longer period (such as the remaining life of the loops).

[1582] In the New York DSL proceeding, the administrative law judge found that, if Verizon had followed its own database procedures over recent decades in recording additions and modifications to loops, LFACS would contain much more of the needed data, and thus would suffice for a significantly greater percentage of loops. *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case 98-C-1357, ALJ Recommended Decision at 165 (May 16, 2001) (*New York ALJ DSL Recommended Decision*), *aff'd*, Order on Unbundled Network Element Rates at 132-33 (Jan. 28, 2002) (*New York Commission DSL Decision*). For this reason, and to provide Verizon with an incentive to improve its database and implement efficient procedures, the New York administrative law judge recommended substantial reductions in Verizon's proposed loop qualification rates. *New York ALJ DSL Recommended Decision* at 165. The New York Commission affirmed the ALJ's recommendation, which, it found, explained "why the rate was being set toward the low end of the range of reason for these costs." *New York Commission DSL Decision* at 132-33.

618. At the same time, requiring Verizon to perform manual loop qualification at no charge may encourage excessive or frivolous requests from competitive LECs in situations in which the data may be of little value to them. Accordingly, we permit Verizon to impose charges for Manual Loop Qualification and an Engineering Query, but not at the levels it proposes. Verizon's proposed charges for these NRCs ($114.52 and $139.42, respectively)[1583] are calculated using the same methodology that we rejected with respect to other NRCs, leading us to conclude that they are overstated.[1584] The record in this proceeding does not, however, contain information that would provide a reasonable basis for reducing these charges.[1585] As with other NRCs, therefore, we direct AT&T/WorldCom to add these NRCs to their model and calculate the charges accordingly. That is, we direct AT&T/WorldCom to add these NRCs to their model using their methodology. This should produce charges considerably lower than those proposed by Verizon, thus providing an incentive for Verizon to improve its database and implement efficient procedures but also some disincentive for competitive LECs to make unneeded requests.

B. Wideband Testing

1. Introduction

619. Verizon proposes a monthly recurring charge of $2.19 per xDSL capable loop[1586] to recover the costs of its Wideband Test System (WTS). WTS is the equipment and associated operational support used to ensure that a loop, from the end-user customer to the DSLAM, is capable of supporting the desired services. WTS isolates problems to either the data or the voice layer. Verizon uses the Hekimian testing system in Virginia, which has remote and spectrum testing capabilities.[1587]

2. Positions of the Parties

620. Verizon asserts that use of WTS minimizes costs associated with the dispatch of service technicians to central offices and customer locations to check trouble reports, which may involve problems unrelated to the loop. "Without reliable test results, Verizon would have no choice but to dispatch a technician to try to isolate every reported trouble, which would be a

[1583] *See* AT&T/WorldCom Ex. 13, at 156; Verizon Ex. 124 at 144.

[1584] *See supra* section X(B)(2).

[1585] Although AT&T/WorldCom, as noted above, argue that LFACS data are currently sufficient for about 90 percent of orders and that Verizon expects to be able to improve this to 96 percent, it is not entirely clear that AT&T/WorldCom refer only to xDSL orders or to the LFACS data required to evaluate a loop's xDSL potential. In fact, this statement appears to refer to all orders. Thus the present record does not appear to provide a reliable basis for specifying a particular further rate reduction.

[1586] AT&T/WorldCom Ex. 13, at 103.

[1587] Verizon Ex. 107, at 150.

misuse of limited technician resources and highly inefficient."[1588] Although competitive LECs are free to do their own testing, Verizon argues that, before provisioning the loop, it still must perform its own testing "to ensure the loop is functioning free of spectrum or noise problems."[1589] Verizon further argues that "[i]t is fundamentally unfair for AT&T/WorldCom to seek to hold Verizon VA to high wholesale service standards, while refusing to contribute to the cost of achieving such standards."[1590]

621. AT&T/WorldCom argue that Verizon has provided no justification for recovering from competitors the costs of the Hekimian system.[1591] Further, because competitive LECs frequently provide their own testing systems (testing capability is normally built into the DSLAM), these carriers complain that Verizon is asking them to pay twice for testing.[1592] Accordingly, they argue that competitors should have to pay for access to Verizon's wideband testing capability system *only* if they choose to use it and *only* if Verizon provides full access to it.[1593] AT&T/WorldCom note that both the New York and Massachusetts Commissions found that competitors, not Verizon, will bear the consequences of their decisions to opt out of Verizon's WTS if this results in additional dispatches.[1594]

3. Discussion

622. We agree with AT&T/WorldCom that competitive LECs that provide their own testing system should not be required to pay for Verizon's WTS. Accordingly, AT&T/WorldCom will pay Verizon's proposed recurring charge only if they elect to use Verizon's WTS.[1595] Further, should they choose not to use Verizon's system, they will be responsible for additional service dispatches that are not caused by problems on the Verizon

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[1588] *Id.* at 151-52.

[1589] Verizon Ex. 124, at 106-07.

[1590] *Id.* at 105-06.

[1591] AT&T/WorldCom Ex. 13, at 104.

[1592] *See id.* at 105, 115.

[1593] *Id.* at 105.

[1594] *Id.* at 112 (citing *Proceeding on Motion of the Commission to Examine New York Telephone Company's Rates for Unbundled Network Elements*, Case No. 98-C-1357, Opinion and Order Concerning Line Sharing Rates at 26 (New York Commission May 26, 2000) *(New York Commission Line Sharing Order)*; *Verizon New England, Inc. dba Verizon Massachusetts*, Decision T.E. 98-57-Phase III at 76 (Massachusetts Commission Sept. 29, 2000) (*Massachusetts Commission Line Sharing Order*)).

[1595] *See New York Commission Line Sharing Order* at 25-26. Because all competitive LECs are not required to use (or pay for) WTS, we expect that the resulting charge for the optional service will be based upon reduced demand. This, in turn, should result in a rate higher than the rate originally projected, which would have been imposed on all competitive LECs. We direct Verizon to recalculate its proposed charge in accordance with our decision.

lines.[1596] Finally, they cannot hold Verizon to the same performance metrics as on lines on which Verizon performs this testing.[1597]

C. Line-sharing OSS

1. Introduction

623. Verizon proposes a monthly per line recurring charge of $0.84 for line-sharing OSS.[1598] Verizon divides these OSS costs into three categories: (1) those to be shared between line sharing and line splitting; (2) those related to internal ordering and billing OSS that are shared by line splitting and line sharing; and (3) those to be shared among line sharing, line splitting, and subloop unbundling.[1599] Verizon amortized its capital costs over five years.[1600]

2. Positions of the Parties

624. Verizon explains that it engaged Telcordia "to enhance its provisioning and inventory systems to recognize the particular requirements for line sharing, line splitting, and subloop service offerings for CLECs."[1601] The OSS costs associated with line sharing "include the amortization of one-time expenses in connection with the required Telcordia-provided OSS software for line sharing (and its associated installation and testing), which was necessary to enhance Verizon VA's inventory systems to recognize line sharing."[1602]

625. The OSS costs incorporated in Verizon's cost study include Telcordia costs to enhance the LFACS and the Service Order Analysis and Control (SOAC) software and the costs associated with Telecom Group Systems (TGS) or Information Systems for expansion and enhancement of the pre-ordering, ordering, and billing systems.[1603] Verizon claims that these enhancements were required for the systems to recognize that line sharing and line splitting arrangements involve more than one service provider. Further, Verizon states that enhancements were made to the Loop Engineering Information System (LEIS), the LEAD system, the Network

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[1596] *See id.* at 26-27.

[1597] *See id.* at 27.

[1598] AT&T/WorldCom Ex. 13, at 116.

[1599] Verizon Ex. 124, at 111.

[1600] *Id.*

[1601] Verizon Ex. 107, at 147.

[1602] *Id.* at 146.

[1603] *Id.* at 147-48.

and Services Data Base (NSDB), and the Provisioning Analyst Workstation.[1604]

626. AT&T/WorldCom argue that, like its support for its more general OSS study, Verizon's cost support for its line sharing OSS study is inadequate.[1605] They argue that the Commission should hold Verizon to a strict burden of proof to justify cost recovery claims for modifications to its OSS in connection with line sharing.[1606] They claim that Verizon has not met this burden.[1607]

627. Should the Commission decide to use Verizon's proposed cost study for line sharing OSS, however, AT&T/WorldCom recommend two modifications. First, they ask that the Commission direct Verizon to remove software maintenance costs from the line sharing OSS cost study. They contend that Verizon's markup for annual ongoing software maintenance is inappropriate, given its admission that it does not separately track ongoing maintenance costs for OSS projects.[1608] Accordingly, AT&T/WorldCom state that Verizon should move software maintenance costs into general ACFs and recover these costs, like other ongoing OSS costs, over all lines.[1609] Second, these carriers argue that the ten-year amortization that applies to costs for access to OSS should also apply here. As Verizon itself acknowledges with respect to access to OSS, use of a ten-year period would "'mitigate the impact on competing carriers and spread the costs among a relatively large number of CLECs.'"[1610] Along with the corrections to Verizon's ACF factors, which are advocated by AT&T/WorldCom's Recurring Cost Panel in reply testimony, these modifications would result in a charge of $0.54 per month per line.[1611]

3. Discussion

628. We conclude that it is appropriate to allow Verizon to recover the costs that it incurred to enhance its line-sharing OSS through the proposed per line recurring charge, but as modified by some of AT&T/WorldCom's requests. Specifically, we direct the parties to apply the same amortization period as is used for other OSS and to remove line sharing OSS costs from

[1604] *Id.* at 148.

[1605] AT&T/WorldCom Ex. 13, at 116.

[1606] *Id.* at 118-19.

[1607] *Id.* at 119.

[1608] *Id.* at 117 (citing Verizon Ex. 107, at 276).

[1609] Consequently, AT&T WorldCom state that Verizon should not back out these costs from its ACF calculation. *See* AT&T/WorldCom Ex. 12, at 94.

[1610] AT&T/WorldCom Ex. 13, at 117-18 (quoting Verizon Ex. 107, at 252).

[1611] *Id.* at 119.

the calculation of ACFs.[1612]

D. Cooperative Testing

1. Introduction

629. Verizon proposes a NRC of $30.78 for cooperative testing.[1613] In cooperative testing, which would occur only upon the request of a competitive LEC in the course of initial provisioning of an xDSL line, a Verizon field technician works with the competitive LEC to test and trouble-shoot the line.[1614] Cooperative testing is normally performed from the end-user's premises and may also require the participation of a frame technician at the central office.[1615] Cooperative testing supplements the standard testing performed in conjunction with provisioning.[1616]

2. Positions of the Parties

630. Verizon asserts that cooperative testing, which is performed only at the request and direction of a competitive LEC, involves the expenditure of time by a Verizon technician.[1617] Verizon argues that this testing eliminates the need for a competitive LEC to dispatch its own technician and thus benefits the competitive LEC, which should pay for it.[1618]

631. AT&T/WorldCom argue that the Commission should reject this charge. According to them, cooperative testing "was established in New York because Verizon-New York was providing many DSL-capable loops to competitors that did not even meet basic continuity requirements."[1619] They note that the Massachusetts[1620] and Maryland[1621] Commissions

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[1612] *See supra* sections VII(C) and III(E)(3)(c).

[1613] AT&T Ex. 13 (Talbott Direct), at 139.

[1614] *See* Verizon Ex. 107, at 142-44; Verizon Ex. 124, at 128.

[1615] *See* Verizon Ex. 107, at 142-43.

[1616] Verizon Ex. 124, at 128.

[1617] *Id.*

[1618] *Id.*

[1619] AT&T/WorldCom Ex. 13, at 140.

[1620] "[I]t is inappropriate to permit Verizon to levy a 'cooperative testing' charge on CLECs, which is based on costs that are caused by provisioning difficulties experienced by both Verizon and CLECs for stand-alone xDSL loops .... The record shows that CLECs already incur their own cost for the cooperative test. Moreover, the record is clear that Verizon believes such testing is 'mutually beneficial'; therefore, Verizon should share in the cost of cooperative testing by absorbing all of its own costs associated with this test as CLECs do .... Finally, the Department agrees that shifting the costs of this test to CLECs relieves Verizon of an incentive to improve its loop performance." *Massachusetts Line Sharing Order* at 113, *cited in* AT&T/WorldCom Ex. 13, at 140-41 n.148.

rejected Verizon's proposed cooperative testing charge, reasoning that each party should bear its own costs and that the proposed charge would enable Verizon to shift the costs of its own inefficiency to its competitors. AT&T/ WorldCom argue, in accordance with these decisions, that, if Verizon's own provisioning difficulties create the need for cooperative testing, its competitors should not be forced to pay for cooperative testing and thus bear the costs of Verizon's inefficiencies.[1622]

3. Discussion

632. We agree with AT&T/WorldCom and reject Verizon's proposed cooperative testing charge. To the extent that Verizon is obligated to provide an xDSL-capable loop,[1623] its competitors should not have to pay an additional charge when Verizon does not meet its obligation. We find that disallowing Verizon's charge for cooperative testing should provide the correct incentive to Verizon to provision its xDSL lines efficiently.

E. *Loop Conditioning Issues*

1. Introduction

633. Loop conditioning is the process of removing impediments to xDSL transmission to enable a loop to carry xDSL service. Verizon proposes NRCs for loop conditioning to remove load coils[1624] and bridged taps.[1625] It also proposes a charge, to be imposed on each conditioning

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[1621] "The Commission finds that each party should bear its own costs with respect to Cooperative Testing. Both parties, the ILEC and the CLEC, enjoy the benefits of engaging in cooperative testing and, as such, it would be grossly unfair to require CLECs to bear the burden of paying for their costs as well as for Verizon's. Additionally, Verizon, not the CLEC, has the duty and obligation of delivering a functioning high frequency portion of the loop to the CLEC ordering the line sharing UNE. Verizon's argument that cooperative testing is necessary for it to comply with this obligation is not compelling. The Commission believes that the proper allocation of the costs for cooperative testing is for each party to shoulder its own expenses." *Rhythms Links, Inc. v. Bell Atlantic-Maryland, Inc.*, Case No. 8842, Phase II, Order No. 76852 at 39 (Maryland Commission Apr. 3, 2001) (*Maryland Digital Line Sharing Rate Order*), *clarified on denial of reconsideration*, Order No. 77074 (Maryland Commission June 29, 2001), *cited in* AT&T/WorldCom Ex. 13, at 141 n.149.

[1622] AT&T/WorldCom Ex. 13, at 140.

[1623] *Triennial Review Order*, section VI(A)(4)(a)(v).

[1624] A load coil is an inductor that is connected into a loop in order to improve its voice transmission characteristics. *New York 271 Order*, 15 FCC Rcd at 4088 n.828.

[1625] A bridged tap is any portion of a loop that is not in the direct talking path between the central office and the service users' terminating equipment. For example, a bridged tap may be an extension of the circuit beyond the service user's location. *See Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Memorandum Opinion and Order, and Notice of Proposed Rulemaking, 13 FCC Rcd 24012, 24086 n.316 (1998) (*Advanced Services Order and NPRM*) (subsequent history omitted). It permits the appearance of the loop at a number of alternative servicing terminal locations, which gives the telephone company greater flexibility in reassigning a telephone number to a different address without rearranging existing facilities. (*continued....*)

task, for an engineering work order. The engineering work order is a detailed plan for performing the conditioning task and recording it in database records and on cable plats.[1626]

2. Positions of the Parties

634. Verizon proposes to impose a NRC for loop conditioning only in extraordinary cases and will recover ordinary conditioning in recurring charges that cover normal network maintenance. Verizon argues that this policy accommodates provision of xDSL services of the varieties and qualities that it considers appropriate and that competitive LECs wishing to offer other xDSL services should bear the cost of any extraordinary conditioning that may be needed.[1627] In accordance with its proposal policy, Verizon would not impose a NRC for load coil removal below 18,000 feet.[1628] Verizon explains that "where load coils are present on copper loops longer than 18,000 feet, the load coils generally cannot be removed because they are necessary for the circuits to function at voice grade standards. Verizon VA does not condition such loops for itself, but it will do so in the relatively rare case that a CLEC requests it."[1629] Similarly, because xDSL technologies are generally designed to operate with up to 6,000 feet of bridged tap, Verizon proposes to remove bridged taps as normal network maintenance (*i.e.*, recovering the costs through ACFs rather than NRCs) only on loops with more than 6,000 feet of bridged taps.[1630] Verizon contends that its proposed NRCs are legitimate and are cost justified.

635. In addition to the charges for the actual conditioning work, Verizon proposes to impose an engineering work order charge in excess of $600 on each conditioning task.[1631] This charge would cover the cost of certain work associated with loop conditioning, such as verifying facilities availability, writing the work order, preparing the special bill generated as a result of construction, and updating records.[1632] Verizon would impose the full charge even where the competitive LEC has previously ordered an Engineering Query (discussed above), because the loop information might have changed since the competitive LEC placed the original order.[1633] On surrebuttal, Verizon challenges AT&T/WorldCom's expert's forward-looking estimate of the

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New York 271 Order, 15 FCC Rcd at 4088 n.829. In order to provide xDSL, bridged taps generally have to be removed. *See Advanced Services Order and NPRM*, 13 FCC Rcd at 24086 n.316.

[1626] *See* Verizon Ex. 107, at 140-41.

[1627] *See id.* at 126-27; Verizon Initial Cost Brief at 203-04.

[1628] *See* Verizon Ex. 107, at 126-27.

[1629] Verizon Initial Cost Brief at 204.

[1630] *Id.* (citing Tr. at 5000, 5027-28); *see also* Verizon Ex. 107, at 126-27.

[1631] *See* AT&T Ex. 13, at 144.

[1632] *See* Verizon Ex. 107, at 140-41.

[1633] *See id.* at 141-42.

labor required to perform an engineering work order.[1634]

636. AT&T/WorldCom argue, first, that an efficient, forward-looking network does not include inhibitors, such as load coils and excessive bridged taps, and that loops in such a network need not be "deconditioned" to carry DSL-based services.[1635] They claim that the premise that these inhibitors must be removed to render a loop suitable for the provision of DSL-based services applies to Verizon's embedded network and violates network engineering guidelines that have been in place since 1980.[1636] Second, they contend that they pay recurring loop rates that recover the costs of a forward-looking network in which conditioning is unnecessary.[1637] Thus, according to AT&T/WorldCom, they cannot also be charged NRCs for these activities because the Commission's rules prohibit recovering "more than the total, forward-looking economic cost of providing the applicable element."[1638]

637. Even if some NRC is appropriate, AT&T/WorldCom argue that a forward-looking network is designed to meet Carrier Service Area (CSA) guidelines and that a NRC should not be applied for bridged tap removal unless requested on loops with less tap than allowed under the CSA standards.[1639] These standards specify that bridged taps not exceed 2,500 feet, with no single tap longer than 2,000 feet.[1640] AT&T/WorldCom also contend that, due to inefficient methods and general flaws in Verizon's NRC Model, its cost study exaggerates the costs associated with removing load coils and bridged taps.[1641] In particular, AT&T/WorldCom argue that, if the Commission allows line conditioning NRCs, it should assume that conditioning is performed on a batch basis of 25 or 50 lines at a time, rather than one line at a time as assumed by Verizon.[1642] This would, of course, result in greatly reduced charges.

638. AT&T/WorldCom also challenge Verizon's proposed procedures and methodology for its proposed engineering work order. They argue that this is among the most

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[1634] Verizon Ex. 124, at 141-43.

[1635] *See* AT&T/WorldCom Ex. 8, at 54, 58; AT&T/WorldCom Ex. 13, at 145 n.154.

[1636] *See* AT&T/WorldCom Ex. 8, at 54, 58; AT&T/WorldCom Ex. 13, at 145.

[1637] *See* AT&T/WorldCom Ex. 21, at 58-59.

[1638] AT&T/WorldCom Ex. 8, at 58-61 (citing, *inter alia,* 47 C.F.R. 51.507(e)); *see also* AT&T/WorldCom Ex. 13, at 145-46.

[1639] *See* AT&T/WorldCom Ex. 8, at 54. The CSA standard was adopted in 1980, but it is implemented only as plant is installed or rebuilt. *See* AT&T/WorldCom Ex. 6, at 5-7; AT&T/WorldCom Ex. 13, at 143 n.152; Verizon Ex. 124, at 132.

[1640] AT&T WorldCom Ex. 6, at 7; Verizon Ex. 124, at 132.

[1641] AT&T/WorldCom Ex. 13, at 148-50 and Attach. A.

[1642] *Id.* at 150-51 and Attach. A.

severely overstated of all Verizon's proposed NRCs.[1643] They present a restated estimate by an expert that purports to show that an efficient, forward-looking estimate would be a bit less than five percent of Verizon's estimate.[1644] In addition, they would allow only one engineering work order charge per service order for loop conditioning.[1645]

3. Discussion

639. We allow Verizon to recover loop conditioning costs through NRCs, as specified below. AT&T/WorldCom argue that loop conditioning is unnecessary in a forward-looking network, and thus such costs are unrecoverable. We acknowledge that these carriers highlight a possible tension between our TELRIC pricing rules,[1646] which apply to both recurring and non-recurring costs, and prior decisions of this Commission with respect to loop conditioning. We act here under authority delegated to us by the Commission, which has specifically stated that requesting carriers "bear the cost of compensating the incumbent LEC for [loop] conditioning," even though a contemporary network might not require such conditioning.[1647] Although we find reasonable Verizon's proposal to charge loop conditioning NRCs only in "extraordinary" cases, we find its proposed charges are unsustainable for the same reasons we reject its other proposed NRCs, *i.e.,* Verizon substantially overstates forward-looking costs.[1648] Accordingly, as with other NRCs, we direct AT&T/WorldCom to add loop conditioning to their model, as discussed below.

640. AT&T/WorldCom assert that load coils are typically removed on a batch basis, that is, entire binder groups at a time.[1649] Such batch conditioning yields a much lower cost per

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[1643] *Id.* at 79-91, 148-150, and Attach. A.

[1644] *See id.*, Attach. A.

[1645] *See id.* at 152.

[1646] *See, e.g.*, 47 C.F.R. §§ 51.505(b)(1), 51.507(e).

[1647] *See Local Competition First Report and Order*, 11 FCC Rcd at 15692, para. 382, *cited in* Verizon Initial Cost Brief at 204 n.221. *But see Maryland Digital Line Sharing Rate Order* at 34-35, *cited in* AT&T/WorldCom Ex. 13 at 147 (denying recovery for load coil removal because FCC rulings relevant only "to states that have assumed copper feeder for purposes of calculating forward looking costs."); *Massachusetts Commission Line Sharing Order* at 87 ("The FCC has not directed states to assume copper feeder in calculating TELRIC, and, without such a directive, it would be illogical for the FCC to mandate the recovery of costs that are relevant only to a network assumption that may not have been approved in a particular state.").

[1648] *See supra* section X(B)(2); *cf. New York ALJ DSL Recommended Decision* at 162 (allowing the "concept of Verizon's loop conditioning charges," subject to corrections necessitated by flaws the ALJ found in Verizon's development of these charges and "to possible prospective change in light of the reexamination of DSL provisioning technology"), *aff'd New York Commission DSL Decision.*

[1649] *See* AT&T/WorldCom Ex. 13, Attach. A. A "binder group" is a group of 25 or 50 pairs bound by a thin color-coded ribbon within a copper cable sheath. *Id.* at n.1.

line because, as AT&T/WorldCom illustrate,[1650] many of the steps required in conditioning (for example, travel, set up, opening the splice case) need be performed only once to condition either a single line or an entire binder group. Verizon does condition loops shorter than 18,000 feet on a batch basis.[1651] These short loops, however, are not at issue here, because Verizon recovers the costs of conditioning them in its recurring charges as part of its network maintenance. Accordingly, Verizon does not seek additional recovery through NRCs for these lines. The proposed NRC for load coil removal would apply only to loops longer than 18,000 feet. Thus the question is whether it is feasible to condition these longer loops on a batch basis.

641. Based on the record before us, we conclude that batch load coil removal is not feasible for loops longer than 18,000 feet. Demand for DSL services on such longer loops is lower because, under currently deployed technology, most forms of DSL services do not work well (*i.e.*, attained speeds are low) at distances greater than 18,000 feet.[1652] Moreover, if the loop is longer than 18,000 feet, removal of load coils renders the loop unusable for voice service.[1653] Further, as distance from the switch increases, the probability of finding an entire binder group in which no pair is carrying voice service becomes very low.[1654] This makes batch coil removal on long loops impractical.[1655] Thus, although batch conditioning appears feasible and efficient for shorter loops, it does not appear feasible for the longer loops for which Verizon is proposing to charge a NRC. Accordingly, for loops longer than 18,000 feet, we direct the parties to assume conditioning of one loop at a time[1656] because batch load coil removal is unlikely to be feasible for the long loops to which the charge would apply.

642. We also permit Verizon to charge for bridged tap removal, but we agree with AT&T/WorldCom that Verizon may impose this charge only when the bridged tap is within the

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[1650] *See id.*, Attach. A, at paras. 11-12.

[1651] Tr. at 4994.

[1652] This conclusion may be modified in the future as new technology extends the reach of xDSL. *See, e.g.*, Brian Hammond, *NECA Study Sees Cost of Rural Broadband Declining*, TR DAILY, Apr. 28, 2003 (suggesting that new repeater technology will soon be available that may extend the "reach" of xDSL to distances as great as 100,000 feet).

[1653] Tr. at 4994.

[1654] *See id.* at 4994-97; 5005-07.

[1655] *See* Verizon Initial Cost Brief at 207-08; *see also* Verizon Ex. 124, at 135 ("As a result of tapering at ... distances [farther than 18,000 feet from the wire center] cable cross-section sizes are substantially smaller than those closer to the office and certainly less likely to have completely spare 25-pair loaded complements that could be unloaded at the same time.").

[1656] It is conceivable that in some cases two or more loops might be conditioned at once, but there is no record evidence to support such a finding. In a future proceeding, however, a party could attempt to demonstrate that, on average, more than one loop is conditioned at a time, and thus that certain elements of the cost should be allocated among several loops.

current CSA standards. In other words, when the tap does not exceed 2,500 feet, with no single tap longer than 2,000 feet and the competitive LEC seeks removal, the competitive LEC will have to pay a removal charge. Verizon advocated and we agreed to apply CSA standards to recurring charges for loop design.[1657] Moreover, Verizon argues with respect to load coils that it "proposes recovery of costs for line conditioning through a NRC if -- and only if -- a CLEC requests conditioning that exceeds Verizon's network design standards."[1658] This argument applies with equal force to bridged taps. We also note that Verizon's proposal to remove bridged taps as normal network maintenance only on loops with more than 6,000 feet of bridged taps would benefit very few loops.[1659] Accordingly, we apply the CSA standards to bridged taps. We reject Verizon's NRC Model computation of the bridged tap charge for the same general reasons that we rejected its computation for load coil removal and other NRCs. We direct AT&T/WorldCom to estimate this cost assuming conditioning of one loop at a time, because batch conditioning also is unlikely to be feasible for bridged tap removal.[1660]

643. We find persuasive AT&T/WorldCom's criticisms of Verizon's engineering work order estimate. Their restated calculation is more credible than Verizon's, which is based on its NRC Model, rejected elsewhere in this order.[1661] Accordingly, we allow a single engineering work order charge per service order, using AT&T WorldCom's calculations.

644. Finally, we note that paragraph 751 of the *Local Competition First Report and Order*[1662] requires a rebate or other cost sharing arrangement where, as here, Verizon performs and charges for non-recurring activities that may in the future benefit other competitive LECs, or Verizon's own xDSL service. Given the churn for this type of service, we find such subsequent benefits likely to occur. Although neither party proposed a method to implement such cost-sharing,[1663] we direct the parties to do so in their compliance filings.

[1657] *See supra* section IV(C)(2)(f). We also note that Verizon should have been applying these standards for any new plant installed in the past two decades. *See* AT&T/WorldCom Ex. 6, at 7; AT&T WorldCom Ex. 13, at 143 n.152.

[1658] Verizon Initial Cost Brief at 203-04.

[1659] Less than five percent of loops nationwide contain more than 6,000 feet of bridged taps, according to a 1983 survey. *See* AT&T Ex. 122, at Fig. 12-6 (Bridged-Tap Length Distribution) (2000). Presumably there would be even fewer today.

[1660] *See* Verizon Initial Cost Brief at 207-08 (and authority cited therein); *see also supra* note 1656.

[1661] *See supra* section X(B)(2).

[1662] 11 FCC Rcd at 15876, para. 751.

[1663] *See* Tr. at 5017-21, 5030-44 (discussing implementation of paragraph 751).

F. NRCs for Establishing Line Sharing

1. Introduction

645. Verizon proposes certain NRCs for establishing line sharing. These charges would recover the cost of re-arranging cross-connects in the central office to insert a splitter, and to connect the high frequency portion of the loop to a competitive LEC's collocation facility.

2. Positions of the Parties

646. Verizon bases its line-sharing NRC on its NRC for a new UNE loop. Verizon explains that line sharing requires the disconnection of an existing cross-connect on the MDF and the establishment of two new cross-connects. It claims that Verizon's charges for these cross-connects are the same as the central office wiring charge of a two-wire initial loop ($35.10) for the first cross-connect, and the same as a two-wire additional loop central office wiring charge ($19.87) for the second.[1664]

647. AT&T/WorldCom argue that Verizon overstates the line sharing NRC. First, several steps related to confirming that a line is functioning cannot be necessary, because line sharing always involves an already working line.[1665] Still other activities appear unnecessary because they should be performed by the line sharing OSS, for which Verizon imposes a separate charge.[1666] Finally, these carriers argue that Verizon's line sharing NRC suffers from the flaws of the Verizon NRC Model, discussed at section X(B)(2) of this order.[1667]

3. Discussion

648. We allow Verizon to impose a NRC for establishing line sharing, but subject to AT&T/WorldCom's proposed adjustments. These adjustments are reasonable because we find that Verizon overstates the non-recurring costs associated with implementing line sharing and because Verizon already recovers some of these costs through the line-sharing OSS charge. Because, for reasons stated elsewhere in this order, we reject Verizon's NRC model,[1668] we direct AT&T/WorldCom to calculate the line-sharing NRC using their model. Although AT&T/WorldCom did not propose a NRC for establishing line sharing, these parties state that their model can produce any other NRCs as needed.[1669]

[1664] *See* Verizon Ex. 107, at 153.

[1665] AT&T/WorldCom Ex. 13, at 122.

[1666] *Id.* at 123.

[1667] *Id.* at 121.

[1668] *See supra* section X(B)(2).

[1669] AT&T/WorldCom Ex. 21, at 56.

G. Splitter-related Charges

1. Introduction

649. Carriers providing xDSL services use a passive filter, or splitter, to split the digital and voice signals and direct them to the packet-switched network and circuit-switched network, respectively. The competitive LECs purchase the splitter.[1670] Verizon proposes three splitter-related charges. Two are alternative recurring charges, which recover costs for administrative and support functions within Verizon's network. Verizon also proposes a one-time installation charge, if the competitive LEC asks Verizon to install the splitter.[1671]

2. Positions of the Parties

650. Under the first option (Option C), the competitive LEC purchases the splitter and either Verizon or a Verizon-approved vendor installs it in Verizon's central office space and Verizon maintains and supports it.[1672] Under this Option, Verizon proposes a recurring charge for splitter administration and support which contains ACF-type components: a network maintenance factor (to recover splitter repair, maintenance, and similar expenses), a wholesale marketing factor (to recover "product management, advertising and customer-interfacing functions associated with the wholesale market"), and a support factor (to recover a range of support functions such as information management, research and development).[1673] Verizon contends that "it is entirely appropriate to recover administration and support expenses, even when the CLEC owns the splitter. Verizon VA incurs these general expenses for *all* UNEs. There is no reason that a CLEC who chooses to own the splitter should avoid these costs."[1674] Verizon argues that, even though it has no investment in the splitter, the competitive LEC's investment serves as a proxy or surrogate base for estimating these recurring costs.[1675]

651. Under the second option (Option A), the competitive LEC purchases and installs the splitter in its collocation cage.[1676] Verizon also proposes to charge for administrative and support functions under Option A.[1677] As with Option C, Verizon explains that it assesses these

[1670] *See* Verizon Ex. 107, at 153-54.

[1671] *See id.* at 155-58.

[1672] *Id.* at 153-54.

[1673] *See* Verizon Ex. 100, Vol. IV at Parts B-15 and B-16, *cited in* Verizon Ex. 107, at 155.

[1674] Verizon Ex. 124, at 104.

[1675] Verizon Ex. 107, at 159.

[1676] *Id.* at 154. There is no Option B. *See id.* at 154 n.33. Verizon explains that it refers in testimony to Options "A" and "C" to remain consistent with references in its cost studies. Option A is identified in Verizon's proposed interconnection agreement as Option "1," and Option C is identified as Option "2." *Id.*

[1677] *Id.* at 159; Verizon Ex. 124, at 104.

general support costs on all UNEs.[1678] Verizon claims that, even in Option A, it faces increased costs for testing, but it has not quantified these costs.[1679]

652. Finally, with respect to its proposed NRC for splitter installation, Verizon explains that, if a competitive LEC requests that Verizon install the splitter, a one-time installation charge is applied.[1680] Competitive LECs also have the option of arranging for the installation of the splitter in a Verizon central office through the use of an approved installation vendor.[1681]

653. AT&T/WorldCom complain that Verizon's implied maintenance costs, which are based on digital equipment, are excessive for a splitter, which is a "simple, passive device[]."[1682] They also object to paying ACF-type charges based on investment that Verizon did not make.[1683] Moreover, these parties contend that it is inappropriate for Verizon to charge anything under Option A, where the competitive LEC purchases the splitter and installs it in space for which it has already fully paid.[1684] AT&T/WorldCom argue that "Verizon has provided no support for its assertion that a competitor's decision to collocate a splitter causes Verizon to incur any of these types of cost."[1685] With respect to Verizon's proposed NRC for splitter installation, AT&T/WorldCom object to Verizon's choice of splitter location,[1686] to Verizon's EF&I factor,[1687] and to Verizon's computation of NRCs.[1688]

3. Discussion

654. We allow Verizon to impose a maintenance charge for Option C using its proposed ACFs because we agree that it is not feasible to develop a separate maintenance factor for every piece of equipment. We otherwise allow no recovery because Verizon has not met its

[1678] Verizon Ex. 124, at 125.

[1679] *See id.* at 125-26.

[1680] Verizon Ex. 107, at 155.

[1681] *Id.*; Verizon Ex. 124, at 122.

[1682] AT&T/WorldCom Ex. 13, at 126-27.

[1683] *See id.* at 130-36.

[1684] *Id.* at 131.

[1685] *Id.* at 132.

[1686] *Id.* at 123-25.

[1687] *Id.* at 126-30.

[1688] *Id.* at 137-39.

burden of showing what costs it actually incurs under Option C.[1689] Further, we reject any recurring charges for Option A because Verizon has not demonstrated that it incurs any incremental costs when a competitive LEC purchases and installs a splitter in a collocation cage for which it is already fully compensating Verizon. If any increased testing costs result, Verizon has not quantified them. Most importantly, however, the competitive LEC incurs these costs itself and should not have to pay them twice.

655. We adopt Verizon's proposed charge for splitter installation when it performs the actual installation. We find Verizon's evidence, in the form of actual vendor quotes, to be more credible than the competitive LEC estimates for splitter installation. Verizon's proposed EF&I factor also appears reasonable. As Verizon argues, if a competitive LEC finds Verizon's charge unreasonable, it may hire its own approved vendor.

H. ISDN Electronics

656. Verizon proposes a NRC to recover the capital costs of, and installation labor for, repeater equipment that enables ISDN-BRI to function on longer loops.[1690] Verizon proposes this NRC only for ISDN-BRI, as distinguished from Primary Rate ISDN, loops.

1. Positions of the Parties

657. Verizon claims that repeater equipment is necessary when metallic loop length is greater than 18,000 feet. It also claims that the costs of this equipment are not included in its development of the ISDN-BRI loop rate.[1691]

658. AT&T/WorldCom argue that the non-recurring cost that Verizon reports for this element is duplicative of costs Verizon recovers through its recurring charges for digital (*i.e.*, ISDN or DSL-capable) loops.[1692] Verizon's forward-looking recurring costs for the digital line -- regardless of loop length -- already include required electronics.[1693] AT&T/WorldCom argue that competitors pay more for ISDN loops than for analog loops, and the increment paid on a recurring basis to Verizon reflects the costs of providing ISDN over fiber for loops of all lengths.[1694] Thus, AT&T/WorldCom claim that Verizon's proposed NRC is for the exact same

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[1689] Specifically, we reject Verizon's wholesale marketing and support factors.

[1690] Verizon Ex. 107, at 162.

[1691] *Id.*

[1692] AT&T/WorldCom Ex. 13, at 153-55.

[1693] *Id.* at 153.

[1694] *Id.*

capability – but under the assumption of a different, all-copper network.[1695]

659. These carriers also argue that Verizon should have treated the repeater material cost as it would ordinarily treat its other loop investments – as a recurring cost.[1696] A repeater is a relatively discrete network component, with a high degree of reusability.[1697] They contend that there is no valid reason that Verizon could not use the same repeater to serve a future customer at the same location, or reuse the repeater to provide ISDN services to a different wholesale or retail customer of the company.

2. Discussion

660. We reject Verizon's proposed charge. Elsewhere in this order, with respect to recurring charges, we adopt higher rates for ISDN-BRI loops than for basic two-wire loops, using AT&T/WorldCom's restatement of Verizon's proposal.[1698] This restatement presumes fiber, rather than copper, facilities.[1699] Accordingly, we agree with AT&T/WorldCom that the recurring charge for ISDN-BRI loops already includes the forward-looking costs of providing the functionality for which Verizon here proposes an additional NRC.

661. Moreover, Verizon does not adequately support its claim that the costs of this equipment were not included in its ISDN-BRI loop rate development. Verizon's loop cost study description for ISDN-BRI states that it includes costs of "equipment hardware and common plug-in cards and ... channel plug-in cards for BRI service."[1700] The cost summary includes entries for "electronics: common" and "electronics: plug-ins,"[1701] but it does not describe what electronics were included or how the results were developed. We note that the term "electronic plug-ins" would generally include repeaters. Thus we find that Verizon has not demonstrated that the repeater costs it seeks to recover here are not already recovered in these electronics charges.

XII. RESALE

662. The 1996 Act requires that Verizon make available "for resale at wholesale rates any telecommunications service that [Verizon] provides at retail to subscribers who are not

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[1695] *Id.*

[1696] *Id.* at 154.

[1697] *Id.*

[1698] *See supra* section IV(D)(3)(b).

[1699] *See supra* section IV(C)(2)(k)(iii).

[1700] *See* Verizon Ex. 100, Part B-4 § 1.1 at 000700.

[1701] *See id.*, Part B-4 § 2.6 at 000744.

telecommunications carriers."[1702] Acting for the Virginia Commission, we must establish wholesale rates based on Verizon's retail rates, "excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by [Verizon]."[1703] These sections of the 1996 Act are independent of those that set forth Verizon's unbundling requirements, including the TELRIC pricing standard.[1704]

663. The Commission's original resale pricing rules were vacated by the United States Court of Appeals for the Eighth Circuit.[1705] In the *Local Competition First Report and Order*, the Commission adopted a "reasonably avoidable" standard governing the costs that must be considered avoided when calculating the wholesale discount.[1706] That is, the Commission found that any costs that "reasonably can be avoided" by the incumbent LEC when it provides a service at resale must be considered avoided in determining the discount.[1707] The Commission's rules were ultimately vacated by the Eighth Circuit in *Iowa Utilities II* because the court found that the rules were inconsistent with the plain meaning of the statute.[1708]

664. In *Iowa Utilities II*, the Eighth Circuit found that the appropriate standard for determining avoided costs is not those costs that "can be avoided," but rather "those costs that the [incumbent LEC] will actually avoid incurring in the future."[1709] Further, the court explained that, when determining avoided costs, the regulator may not assume that the incumbent is acting as a wholesaler only, but rather must assume that the incumbent provider is acting as both a wholesale and a retail provider.[1710]

[1702] 47 U.S.C. § 251(c)(4)(A).

[1703] 47 U.S.C. § 252(d)(3). The full text of this section is as follows:

> WHOLESALE PRICES FOR TELECOMMUNICATIONS SERVICES.—For the purposes of section 251(c)(4), a State commission shall 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.

[1704] *Compare* 47 U.S.C. §§ 251(c)(4)(A), 252(d)(3) (resale standard), *with* 47 U.S.C. §§ 251(c)(3), 252(d)(1) (UNE standard).

[1705] *Iowa Utils. Bd. v. FCC*, 219 F.3d 744, 754-56, 765 (8th Cir. 2000) (*Iowa Utilities II*) (vacating rules 47 C.F.R. §§ 51.609, 51.611), *rev'd on other grounds sub nom. Verizon. v. FCC*, 535 U.S. at 467.

[1706] *Local Competition First Report and Order*, 11 FCC Rcd at 15956-57, para. 912.

[1707] 47 C.F.R. § 51.609(b).

[1708] *Iowa Utilities II*, 219 F.3d at 754-56, 765.

[1709] *Id.* at 755.

[1710] *Id.*

665. The Commission has not conducted any further rulemaking to provide additional guidance on establishing wholesale discounts.

A. Timing – Whether to Set Wholesale Discount Rates in this Proceeding

1. Positions of the Parties

666. AT&T[1711] argues that the Bureau should decline to establish the wholesale discount in the arbitration.[1712] Instead, we should retain the discounts previously ordered by the Virginia Commission until the Commission conducts a rulemaking to revise its rules for determining the wholesale discount.[1713] Only through a rulemaking will the Commission receive input from the entire industry before first interpreting the Eighth Circuit's opinion.[1714] Moreover, lowering the discount rate would destroy the already anemic level of resale competition.[1715]

667. Verizon objects to retaining the discount rates previously established by the Virginia Commission.[1716] First, Verizon argues that because the current wholesale discount rates were established pursuant to the Commission's now vacated wholesale discount standards, these discount rates may not be perpetuated.[1717] Second, Verizon claims that the Eighth Circuit set forth a clear standard and that Verizon's avoided cost study complies with this standard.[1718] Finally, the job of the Bureau is to apply the statute, not to ensure that the discount is high enough to guarantee that resale is a profitable means of entry for individual competitors.[1719]

2. Discussion

668. We agree with Verizon and will establish wholesale discount rates in this arbitration. As we stated in the *Non-Cost Arbitration Order*, we are required under the 1996 Act

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[1711] All resale issues in this arbitration are between Verizon and AT&T only. WorldCom neither took any position on wholesale discount issues nor sponsored any witness on this subject.

[1712] AT&T Ex. 14 (Kirchberger Rebuttal), at 2, 14; Tr. at 3702-03, 3740-42; *see also* AT&T/WorldCom Initial Cost Brief at 238-40.

[1713] AT&T Ex. 14, at 4, 14; Tr. at 3702-03, 3740-42; *see also* AT&T/WorldCom Initial Cost Brief at 238-39.

[1714] AT&T Ex. 14, at 2, 4; Tr. at 3702-03, 3740-42, 3750-51, 3753-54.

[1715] AT&T Ex. 14, at 2, 7-8; *see also* AT&T/WorldCom Initial Cost Brief at 239-40.

[1716] Verizon Ex. 121 (Minion Surrebuttal), at 2-4; *see also* Verizon Initial Cost Brief at 222.

[1717] Verizon Ex. 121, at 2-3; *see also* Verizon Initial Cost Brief at 222-23.

[1718] *See* Verizon Ex. 107, at 238; Verizon Ex. 121, at 1; Tr. at 3742; Verizon Initial Cost Brief at 223.

[1719] *See* Verizon Ex. 121, at 3-4; Verizon Initial Cost Brief at 228-29; *see also* Tr. at 3730, 3750-51; Verizon Reply Cost Brief at 192.

to decide all issues that are fairly presented to us.[1720] AT&T has not alleged that the issue of the wholesale discount was not properly raised by the parties. Rather, testimony was filed, cross-examination occurred during the hearing, and the issue was briefed.[1721] Verizon also correctly states that the wholesale discount rates previously established by the Virginia Commission were based on the Commission's now vacated rules. Accordingly, it would be improper for us to continue to apply these rates to continue prospectively. Rather, the record before us is sufficient for us to establish new discount rates under the Eighth Circuit's standard.

669. Establishing wholesale discount rates in this proceeding, of course, does not preclude the Commission from examining the issue later in a rulemaking proceeding.[1722] The rules that would result from any such proceeding would necessarily be based on the record compiled in that proceeding, and would not be prejudiced by any decision that we reach here.

670. Finally, we agree with Verizon that our role is to apply the statute in determining the appropriate discount.[1723] Once the discount rate is set through the proper application of the statute, it is then up to the market place to determine how much competition will develop via resale. Nowhere in section 252(d)(3) are we required, or even permitted, to adjust the discount to manipulate the level or profitability of resale market entry.[1724]

B. Wholesale Discount Standard

1. Positions of the Parties

671. Verizon claims that the Eighth Circuit clearly articulated the standard that must be used in an avoided cost study: the costs to be excluded in determining the wholesale discount are those costs, regardless of type (*e.g.*, marketing), that the incumbent LEC actually will avoid when providing services to resellers.[1725] Verizon argues that the appropriate starting point in making such a calculation is its determination of the costs that Verizon actually avoids today.[1726]

[1720] *Non-Cost Arbitration Order*, 17 FCC Rcd at 27043, para. 3 (citing 47 U.S.C. §§ 252(b)(4)(C), 252(c)).

[1721] *See, e.g.*, AT&T/WorldCom Initial Cost Brief at 232-40; Verizon Initial Cost Brief at 222-29.

[1722] *See* Verizon Initial Cost Brief at 223 ("The Commission may choose in the future to issue new rules interpreting section 252(d)(3).").

[1723] *See* Verizon Ex. 121, at 3.

[1724] *See* 47 U.S.C. § 252(d)(3).

[1725] Verizon Ex. 107, at 338; Verizon Ex. 121, at 1-3; *see also* Verizon Initial Cost Brief at 222-23; Verizon Reply Cost Brief at 188-89, 191.

[1726] Tr. at 3742-44, 3746-50 ("I [Verizon witness Minion] still firmly believe that the examination of our existing operations serves as the reasonable starting point to examine what functions will not be needed—which functions will truly be avoided going forward . . . but not going into the more hypothetical potentially avoided, what happens 10 years down the road when such-and-such may not occur." *Id.* at 3746-47); *see also* Verizon Ex. 107, at 334, 341-42; Verizon Reply Cost Brief at 190.

Verizon does not believe that there are additional costs that it will avoid in the foreseeable future, even if competitive entry reaches a level as high as forty percent.[1727]

672. AT&T posits that the statute mandates the exclusion of all marketing, billing, and collection costs when determining the wholesale discount.[1728] Any other costs that will be avoided by Verizon must also be excluded.[1729] AT&T further argues that a fully competitive local service market should be assumed when determining which costs will be avoided in the future.[1730] Verizon fails to make this assumption, as it fails to take into account costs that would be avoided as competition increases in the future.[1731]

2. Discussion

673. We find that the legal standard advocated by Verizon more closely tracks the statutory language (as interpreted by the Eighth Circuit) than does that advocated by AT&T. As explained by the Eighth Circuit, the costs that must be excluded are those that Verizon, due to its activities as a wholesaler, "will actually avoid incurring in the future."[1732] Although section 252(d)(3) identifies marketing, billing, and collection costs as categories of costs that *may* need to be excluded if they are avoided, it does not require the exclusion of all such costs. Grammatically, the dependent clause "that will be avoided" modifies the noun "costs." Similarly, the adjectives "marketing," "billing," "collection," and "other" all modify "costs." Therefore, costs – whether marketing costs, billing costs, collection costs, or other costs – must be excluded only if they actually "will be avoided." Accordingly, we disagree with AT&T that *all* marketing costs, billing costs, and collection costs must be excluded. Rather, such costs must be excluded *only if* they are now, or will be in the future, avoided by Verizon in its provision of wholesale services.

674. Because we must assess the costs that will be avoided, it is reasonable to begin by analyzing the costs that Verizon avoids today in providing wholesale services to AT&T for resale. We are troubled, however, that Verizon, after conceding that the legal standard is the costs it will avoid in the future, claims that it can identify no additional costs that it anticipates it will avoid in providing wholesale services in the foreseeable future. In fact, Verizon claims that it could lose up to forty percent of its market share without avoiding any additional costs.[1733]

[1727] Tr. at 3754-55.

[1728] AT&T Ex. 14, at 3; *see also* AT&T/WorldCom Initial Cost Brief at 233-34.

[1729] AT&T Ex. 14, at 3; *see also* AT&T/WorldCom Initial Cost Brief at 234.

[1730] AT&T Ex. 14, at 5-6; *see also* AT&T/WorldCom Initial Cost Brief at 234.

[1731] AT&T Ex. 14, at 3, 5-7; *see also* AT&T/WorldCom Initial Cost Brief at 234-35.

[1732] *Iowa Utilities II*, 219 F.3d at 755.

[1733] *See* Tr. at 3754-55.

Nevertheless, AT&T fails to identify any additional costs that Verizon will be able to avoid in the future. Instead, AT&T simply claims that the starting point for an avoided cost study should be the assumption of a fully competitive market. This is not supported by section 252(d)(3) or by the Eighth Circuit's decision.[1734] Although assumptions about the existence of a competitive market are relevant to UNE pricing under section 252(d)(1) and the Commission's rules implementing that section, nothing in section 252(d)(3) calls for such assumptions in determining the wholesale discount. Notably, section 252(d)(1) specifically requires the determination of UNE rates "without reference to a rate-based proceeding," whereas section 251(d)(3) requires the determination of the wholesale discount "on the basis of retail rates charged to subscribers."[1735] Moreover, even were we to accept AT&T's assumption, AT&T fails to present any evidence showing the costs that Verizon would avoid if operating in such a market place. Indeed, AT&T fails to identify with specificity any cost that Verizon will avoid in the future beyond those Verizon avoids today.[1736] Consequently, based on the record before us, we will establish wholesale discount rates based on those costs that a party shows Verizon actually avoids in providing services to resellers.

C. Vertical Features / Stand-Alone Services

1. Positions of the Parties

675. Verizon claims that the wholesale discount should not apply to vertical features as stand-alone services because it does not offer vertical features at retail on a stand-alone basis.[1737] Alternatively, Verizon argues that, if it is required to offer vertical features subject to the wholesale discount, a different discount rate should apply because Verizon would avoid different costs if it were providing only vertical services at wholesale to AT&T, while continuing to provide dial tone to the retail end-user.[1738] For example, Verizon would not avoid billing functions because it would continue to send a bill to the end-user.[1739] Verizon did not propose separate discount rates for vertical features offered as stand-alone services.[1740]

[1734] *See* 47 U.S.C. § 252(d)(3); *Iowa Utilities II*, 219 F.3d at 755-56.

[1735] *Compare* 47 U.S.C. § 252(d)(1), *with* 47 U.S.C. § 252(d)(3). Indeed, in comparing the UNE pricing standard to retail rate setting, the Supreme Court found that the UNE pricing standard "appears to be an explicit disavowal of the public-utility model of rate regulation . . . for retail sales . . . in favor of novel ratesetting." *Verizon v. FCC*, 535 U.S. at 489.

[1736] Specific disagreements between the parties regarding the costs that should be considered avoided today are discussed *infra* in section XII(D).

[1737] *See* Verizon Ex. 121, at 11-13; Tr. at 3714.

[1738] Tr. at 3714; *see also* Verizon Ex. 121, at 12; Verizon Reply Cost Brief at 193.

[1739] Tr. at 3715; *see also* Verizon Ex. 121, at 12; Verizon Reply Cost Brief at 193-94.

[1740] Tr. at 3714-16; *see also* AT&T/WorldCom Initial Cost Brief at 238.

676. AT&T argues that it should be able to purchase vertical services, and other services, on a stand-alone basis, even if Verizon does not offer them at retail to end-users.[1741] AT&T reasons that it should not be required to purchase a service that it does not want (*e.g.*, dial tone) in order to purchase a service that it does want (*e.g.*, vertical features).[1742] AT&T further argues that the same wholesale discount should apply to vertical features that applies to any other service.[1743] AT&T explains that, although Verizon would avoid substantially fewer costs with respect to the end-user to which it continues to provide dial tone, Verizon would also recover its full retail costs from that end-user.[1744] Thus, in that scenario, the costs of providing dial tone to the Verizon retail customer would be irrelevant to the analysis.[1745] Rather, the avoided costs would be those avoided when examining only the vertical service.[1746] Therefore, the same wholesale discount should apply.[1747]

2. Discussion

677. We decline to establish wholesale discount rates for vertical features or other stand-alone services. In the *Non-Cost Arbitration Order*, we found that Verizon is not obligated to offer for resale more discrete services than it offers to its retail customers.[1748] Further, AT&T fails to challenge Verizon's statements that Verizon does not offer vertical features on a stand-alone basis. Therefore, we found that it was not necessary to calculate a separate wholesale discount for vertical features.[1749] AT&T offers no additional reasons here for us to depart from our conclusion in the *Non-Cost Arbitration Order*. We, therefore, reiterate that Verizon does not, nor is it required to, offer vertical services on a stand-alone basis for resale. Accordingly, we do not require separate wholesale discounts for vertical features or other stand-alone services.

[1741] *See* AT&T Ex. 14, at 12-13.

[1742] *See id.*

[1743] *See id.*; AT&T/WorldCom Initial Cost Brief at 237-38.

[1744] *See* AT&T Ex. 14, at 12-13; AT&T/WorldCom Initial Cost Brief at 238.

[1745] *See* AT&T Ex. 14, at 12-13; AT&T/WorldCom Initial Cost Brief at 238.

[1746] *See* AT&T Ex. 14, at 12-13; AT&T/WorldCom Initial Cost Brief at 238.

[1747] *See* AT&T Ex. 14, at 12-13; AT&T/WorldCom Initial Cost Brief at 238.

[1748] *Non-Cost Arbitration Order*, 17 FCC Rcd at 27351, para. 642 (citing *Local Competition First Report and Order*, 11 FCC Rcd at 15924, 15936, paras. 872, 877); 47 U.S.C. § 251(c)(4) (Verizon must offer at resale only those "telecommunications service[s] that the carrier provides at retail to subscribers who are not telecommunications carriers").

[1749] *Non-Cost Arbitration Order*, 17 FCC Rcd at 27351, para. 642.

D. Avoided Costs

1. Introduction

678. Verizon is the only party that submitted an avoided cost study. Verizon calculated wholesale discounts for two scenarios:

14.68 percent – Reseller using own operator services and directory assistance (OS/DA)[1750]

13.06 percent – Reseller using Verizon's OS/DA[1751]

679. To determine its proposed discount rates, Verizon analyzed its expenses by function codes, using information from its 1999 functional accounting data to determine the costs that it will actually avoid in providing wholesale services.[1752] In addition to excluding direct avoided costs, Verizon excluded "those indirect expenses that vary with the level of retail output."[1753] To determine the applicable discount when the reseller does not use Verizon's OS/DA, Verizon removed the expenses associated with the Call Completion/Number Services and Operator Services accounts.[1754]

680. AT&T challenge Verizon's determinations regarding which expenses will be avoided.[1755] We address these claims in the following subsections.

2. Direct Expenses

a. Product Advertising

(i) Positions of the Parties

681. AT&T claims that Product Advertising (Account 6613) should be treated as an avoided cost.[1756] AT&T alleges that, as Verizon loses market share, Verizon will decrease its

[1750] Verizon Ex. 139 (Errata to Exhibits 100 and 107); Tr. at 3710-12; *see also* Verizon Ex. 121, at 1; Verizon Reply Cost Brief at 181.

[1751] *See* Verizon Ex. 121, at 1; Verizon Reply Cost Brief at 182; Verizon Ex. 107, at 340-41; *see also* Verizon Ex. 100P, Vol. VIII, Part F-6, Tab 1 at 1 (confidential version).

[1752] Verizon Ex. 107, at 337, 339-55; *see also* Tr. at 3696-700; Verizon Initial Cost Brief at 225-26. The accounting data is contained in Verizon's books maintained according to the uniform system of accounts.

[1753] Verizon Ex. 107, at 341; *see also id.* at 345, 358-60.

[1754] *Id.* at 340.

[1755] *See* AT&T Ex. 14, at 8-12; AT&T/WorldCom Initial Cost Brief at 233, 235-37.

[1756] AT&T Ex. 14, at 9-10; *see also* AT&T/WorldCom Initial Cost Brief at 233, 235-37.

advertising budget.[1757] AT&T also contends that, because competitive LECs must pay for their own advertising, they should not also have to pay for Verizon's advertising by including these costs in wholesale rates.[1758]

682. Verizon claims that Product Advertising is not an avoided cost.[1759] Instead, Verizon contends that it would likely increase rather than decrease its advertising expenses if it lost considerable market share.[1760] Indeed, Verizon asserts that AT&T's advertising expenses increased after divestiture while AT&T lost market share in the long distance market place.[1761] Verizon also claims that its advertising would generally lead to greater total market penetration for all telecommunications services purchased by end-users, including some services that would be purchased from resellers, such as AT&T, rather than from Verizon.[1762] AT&T and other resellers, therefore, would benefit from Verizon's advertising expenses.[1763]

683. AT&T rebuts Verizon's claims regarding AT&T's post-divestiture advertising expenses, asserting that, following divestiture, AT&T's advertising expenses reflected a generally consistent percentage of revenues.[1764] AT&T also contends that it will not gain resale end-user customers as a result of Verizon's advertising.[1765]

(ii) Discussion

684. We agree with Verizon. Neither party presented convincing evidence showing that there is an expected trend in advertising expenses as market share declines. Nevertheless, we credit Verizon's claim that it would respond to losses in its local retail business to competitive LECs by increasing its advertising both to retain and to win back customers. To the extent that AT&T proposes that all advertising costs be avoided, moreover, AT&T undermined its position with its claim that its advertising costs remained constant as a percentage of revenues

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[1757] AT&T Ex. 14, at 9.

[1758] *Id.* at 9-10.

[1759] Verizon Ex. 107, at 346-47; Verizon Ex. 121, at 9; Tr. at 3716-18; *see also* Verizon Initial Cost Brief at 226-27; Verizon Reply Cost Brief at 191-92.

[1760] Verizon Ex. 121, at 5-6; Tr. at 3717-18; *see also* Verizon Initial Cost Brief at 226.

[1761] Verizon Ex. 121, at 6; Tr. at 3721; *see also* Verizon Initial Cost Brief at 226.

[1762] Verizon Ex. 107, at 347; Verizon Ex. 121, at 5-6; Tr. at 3718-19; *see also* Verizon Initial Cost Brief at 227.

[1763] *See* Verizon Ex. 107, at 347; Verizon Ex. 121, at 5-6; Tr. at 3718-19; Verizon Initial Cost Brief at 227.

[1764] *See* Verizon Ex. 121, at Attach. A (AT&T/WorldCom Response to Verizon Data Request 13-10); Tr. at 3722-23.

[1765] *See* AT&T/WorldCom Initial Cost Brief at 236.

post-divestiture at the same time that its market share declined.[1766] Thus, although AT&T may have avoided some of its advertising costs as competition increased, it certainly did not avoid all of its costs. AT&T did not offer evidence that Verizon might avoid only a percentage of its advertising expenses. Between the proposals before us, therefore, we find for Verizon and do not require Verizon to treat its product advertising expenses as avoided.

b. Call Completion and Number Services

(i) Positions of the Parties

685. AT&T claims that Verizon errs by not treating as avoided any of the costs associated with Call Completion (Account 6621) and Number Services (Account 6622).[1767] AT&T claims that these costs will be avoided if a competitive LEC is providing its own operator services and directory assistance.[1768]

686. Verizon offers two different wholesale discount rates, one where the competitive LEC uses Verizon's OS/DA and one where the competitive LEC does not use Verizon's OS/DA.[1769] In calculating the wholesale discount when the competitive LEC does not use Verizon's OS/DA, Verizon excluded both the retail revenues from these services and the expenses associated with providing these services in determining the discount rate.[1770]

(ii) Discussion

687. We agree with Verizon on this issue. Call Completion and Number Services expenses should be excluded from the discount rate calculations when a competitive LEC does not use Verizon's OS/DA, but should included when a competitive LEC uses Verizon's OS/DA. Verizon properly excludes both revenues and expenses associated with its OS/DA when calculating the wholesale discount for competitive LECs that use their own OS/DA.[1771] Similarly, Verizon properly includes both revenues and expenses associated with its OS/DA when calculating the wholesale discount for competitive LECs that use Verizon's OS/DA.[1772]

[1766] *See* Verizon Ex. 121, at Attach. A; Tr. at 3722-23.

[1767] AT&T Ex. 14, at 10.

[1768] *Id.*

[1769] Verizon Ex. 107, at 340, 357-58; Verizon Ex. 121, at 7-8.

[1770] Verizon Ex. 121, at 7-8; *see also* Verizon Initial Cost Brief at 227.

[1771] *See* Verizon Ex. 121, at 7-8.

[1772] *See id.*

3. Indirect Expenses

a. Information Management

(i) Positions of the Parties

688. AT&T claims that Information Management (Account 6724) includes costs that will be avoided just as General Purpose Computers (Account 6124) does.[1773] Verizon's avoided cost study identifies 45.38 percent of costs in the General Purpose Computers account as avoided.[1774] AT&T contends that, if the computer expenses are avoided, then the associated indirect information system programming and maintenance expenses that are in the Information Management would also be avoided.[1775]

689. Verizon explains that AT&T confuses the expenses included in the General Purpose Computer and the Information Management accounts.[1776] The General Purpose Computers account expenses are mainly those associated with physical computer hardware.[1777] When Verizon treats the work of a specific functional group (*e.g.*, product management) as avoided, then the computer hardware expenses associated with that group are similarly avoided.[1778] Information Management expenses are distinct from the expenses included in the General Purpose Computers account.[1779] Specifically, Information Management expenses relate to the databases and software applications used in Verizon's data centers.[1780] Unlike General Purpose Computers expenses, there is no correlation between Information Management expenses and the work groups whose expenses are avoided (*e.g.*, product management).[1781] Verizon provides the following example to explain AT&T's error:

> [A] program that is run to update Verizon VA plant in-service records pursuant to recent service orders – which would be charged to the Information Management account – is not avoided simply because an end-user takes service from a reseller

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[1773] AT&T Ex. 14, at 11-12.

[1774] *See id.* at 11.

[1775] *Id.* at 11-12.

[1776] Verizon Ex. 121, at 9-10; *see also* Verizon Initial Cost Brief at 227-28 n.267.

[1777] Verizon Ex. 121, at 9.

[1778] *Id.*

[1779] *Id.* at 10.

[1780] *Id.*

[1781] *Id.*

rather than Verizon VA retail.[1782]

(ii) Discussion

690. We agree with Verizon because, as Verizon explains, the expenses identified in the two accounts do not have the same correlation to accounts that contain expenses for avoided costs. We decline, therefore, based on the record before us, to require Verizon to exclude costs from its Information Management Account when calculating the wholesale discount rates.

b. Office Equipment and Human Resources

(i) Positions of the Parties

691. AT&T claims that, just as Verizon identifies 100 percent of the expenses associated with Sales (Account 6612) as expenses that are avoided, all of the costs associated with the people who perform the sales functions – *e.g.*, their salaries, office equipment, office space, and the human resources support to hire and fire them – should be avoided. These indirect expenses are reflected in the Office Equipment and the Human Resources accounts (Accounts 6123 and 6723).[1783]

692. Verizon claims that AT&T is wrong for two reasons.[1784] First, 100 percent of sales activities are not avoided.[1785] Rather, the percentage of sales expenses that will be avoided will equal the percentage of lines that switch to resellers.[1786] Second, any decline in the amount of retail sales activity probably will not lead to a direct, linear decline in the amount of indirect avoided costs.[1787] For example, a ten percent decline in retail sales activity likely will not lead to a ten percent decline in sales office copier expenses or other indirect expenses.[1788]

(ii) Discussion

693. We agree with AT&T. Verizon's avoided cost study identifies 100 percent of the Sales account (6612) as avoided.[1789] The Verizon surrebuttal testimony thus mischaracterizes

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[1782] *Id.*

[1783] AT&T Ex. 14, at 10-11.

[1784] Verizon Ex. 121, at 10-11.

[1785] *Id.* at 11; *see also* Verizon Initial Cost Brief at 227-28 n.267.

[1786] *See* Verizon Ex. 121, at 11.

[1787] *See id.*

[1788] *See id.*

[1789] Verizon Ex. 100, Part F-6 at 1, line 2; Verizon Ex. 107, at 346; Tr. at 3759.

Verizon's own study.[1790] We therefore require Verizon to re-run its avoided cost study, removing the appropriate percentage of expenses from accounts 6123 and 6723 that are associated with expenses in account 6612.

XIII. RATES AND COMPLIANCE FILING

694. As we explain in detail herein, in this order we establish recurring rates for all loop types presented by the parties. Appendix E contains a list of the ordered loop rates. In particular, we set basic 2-wire and 4-wire loop rates based on the MSM (as modified by this order) filed by AT&T/WorldCom. The component loop output costs from the MSM are attached to this order at Appendix F, and the input files containing all of the modifications we are making to the AT&T/WorldCom submission are attached at Appendix G.[1791]

695. To establish recurring rates for all other UNEs (*i.e.*, non-loops), we adopt Verizon's recurring cost studies, subject to the modifications that we require herein. We direct Verizon to resubmit its recurring costs studies, modifying them to reflect the changes – and only those changes – set forth herein. Along with its cost studies, we require Verizon to submit testimony, workpapers, and/or other filings that explain in detail the specific changes it makes to its studies to implement the changes required by this order. Verizon shall file its cost studies, along with any necessary supporting documentation, within 60 days from the date of release of this order. AT&T and WorldCom may file rebuttal testimony, along with any necessary supporting documentation, within 81 from the date of release of this order.

696. We adopt the AT&T/WorldCom non-recurring cost study to establish NRCs. We direct AT&T/WorldCom to resubmit the non-recurring cost study, modified to reflect the changes – and only those changes – set forth in this order, including the requirement that AT&T/WorldCom generate NRCs for additional UNEs beyond those contained in AT&T/WorldCom's submission. Along with their revised cost study, we require AT&T/WorldCom to submit testimony, workpapers, and/or other filings that explain in detail the specific changes they make to their study to implement the changes required by this order. AT&T/WorldCom shall file their cost study, along with any necessary supporting documentation, within 60 days from the date of release of this order. Verizon may file rebuttal testimony, along with any necessary supporting documentation, within 81 days from the date of release of this order.

697. We adopt the Verizon avoided cost study to establish wholesale discounts. We direct Verizon to resubmit its avoided cost study, modified to reflect the change – and only the change – set forth in this order. Along with its cost studies, we require Verizon to submit testimony, workpapers, and/or other filings that explain in detail the specific changes it makes to its study to implement the change required by this order. Verizon shall file its cost study, along

[1790] *See* Verizon Ex. 121, at 11.

[1791] All appendices attached to this order are hereby incorporated into this order by this reference.