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DA 97-523

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

In the Matter of	)	
	)	
Ameritech Operating Companies'	)	
New Expanded Interconnection Tariff	)	CC Docket No. 96-185
	)	
Bell Atlantic Telephone Companies'	)	
New Expanded Interconnection Tariff	)	CC Docket No. 96-165
	)	
Puerto Rico Telephone Company's	)	
New Expanded Interconnection Tariff	)	CC Docket No. 96-160

ORDER DESIGNATING ISSUES FOR INVESTIGATION

Adopted: March 11, 1997 Released: March 11, 1997

By the Chief, Common Carrier Bureau:

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I. INTRODUCTION

1. In August, 1996, the Bureau released three orders initiating investigations into the new expanded interconnection tariffs filed by the Bell Atlantic Telephone Companies (Bell Atlantic), the Puerto Rico Telephone Company (PRTC), and the Ameritech Operating Companies (Ameritech).[1] The filings of Bell Atlantic and Ameritech reinstated physical collocation service. PRTC introduced expanded interconnection through virtual collocation for the first time. Bell Atlantic also modified its virtual collocation tariff. MFS Communications Company, Inc. (MFS), MCI Telecommunications Corporation (MCI), and Teleport Communications Group, Inc. (Teleport) filed petitions to suspend and investigate Bell Atlantic's new expanded interconnection tariff;[2] MFS, MCI, and American Telephone and Telegraph Corporation (AT&T) filed petitions to suspend and investigate Ameritech's new expanded interconnection tariff;[3] and Centennial Cellular Corporation (Centennial) filed a petition to suspend and investigate PRTC's new expanded interconnection tariff.[4] Ameritech, Bell Atlantic, and PRTC filed replies to these petitions.[5]

2. In this Order, we designate issues regarding the rate levels, rate structures, and

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[1] Investigation of Bell Atlantic's New Expanded Interconnection Offerings, CC Docket No. 96-165, Order, DA 96-1232 (Com. Car. Bur. August 2, 1996) (*Bell Atlantic Tariff Suspension Order*); Investigation of Puerto Rico Telephone Company's New Expanded Interconnection Offerings, CC Docket No. 96-160, Order, 11 FCC Rcd 9407 (Com. Car. Bur. August 14, 1996) (*PRTC Tariff Suspension Order*); Investigation of Ameritech's New Expanded Interconnection Offerings, CC Docket No. 96-185, Order, 11 FCC Rcd 10177 (Com. Car. Bur. August 29, 1996) (*Ameritech Tariff Suspension Order*).

[2] Petition of MFS Communications Company, Inc. to Suspend and Investigate Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 883 (filed June 19, 1996) (*MFS Petition re: Bell Atlantic*); Petition of MCI Telecommunications Corporation to Suspend and Investigate Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 883 (filed June 19, 1996) (*MCI Petition re: Bell Atlantic*); Petition of Teleport Communications Group, Inc. to Suspend in Part, Investigate, and Impose an Accounting Order for Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 883 (filed June 19, 1996) (*Teleport Petition*).

[3] Petition of MFS Communications Company, Inc. to Suspend and Investigate Ameritech Operating Companies Tariff F.C.C No. 2, Transmittal No. 981 (filed July 17, 1996) (*MFS Petition re: Ameritech*); Petition of MCI Telecommunications Corporation to Suspend and Investigate Ameritech Operating Companies Tariff F.C.C No. 2, Transmittal No. 981 (filed July 17, 1996) (*MCI Petition re: Ameritech*); Petition of AT&T Corporation to Suspend and Investigate Ameritech Operating Companies Tariff F.C.C No. 2, Transmittal No. 981 (filed July 17, 1996) (*AT&T Petition*).

[4] Petition of Centennial Cellular Corporation to Suspend and Investigate Puerto Rico Telephone Company Tariff F.C.C. No. 1, Transmittal No. 2 (filed May 21, 1996) (*Centennial Petition*).

[5] Opposition of Ameritech to Petitions to Suspend and Investigate Ameritech Tariff F.C.C. No. 2, Transmittal No. 981 (filed July 29, 1996) (*Ameritech Reply*); Reply of Bell Atlantic Telephone Companies to Petitions to Suspend and Investigate Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 883 (filed July 1, 1996) (*Bell Atlantic Reply*); Reply of Puerto Rico Telephone Company to Petition to Suspend and Investigate PRTC Tariff F.C.C. No. 1, Transmittal No. 2 (filed June 3, 1996) (*PRTC Reply*).

terms and conditions of Bell Atlantic's and Ameritech's physical collocation tariffs. We also designate issues regarding the rate levels, rate structures, and terms and conditions of Bell Atlantic's and PRTC's virtual collocation tariffs. In addition, we establish a pleading cycle for comment on these issues.

II. BACKGROUND

3. On June 4, 1996, Bell Atlantic filed Transmittal No. 883. This transmittal proposed to revise Bell Atlantic's Tariff F.C.C. No. 1 to reinstate physical collocation expanded interconnection service[6] and modify prices for its virtual collocation expanded interconnection service.[7] It also proposed, for the first time, to supplement month-to-month service with three- and five-year term pricing plans for both virtual and physical collocation. All of Transmittal No. 883's proposed virtual collocation rates were equal to or less than rates it was then charging, but its overhead loading factors for the month-to-month plan (DS1 and DS3 rate elements), the three-year term plan (DS1 and DS3 rate elements), and the five-year term plan's DS3 rate elements exceeded those prescribed by the Commission in its *Virtual Collocation Phase I Order*.[8] On July 11, 1996, Bell Atlantic filed Transmittal No. 889, which made minor revisions to Transmittal No. 883.

4. On August 2, 1996, we granted a petition for interim waiver of the Commission's overhead loading prescription. We granted this interim waiver, pending Commission action on Bell Atlantic's Motion to Vacate Prescription, which had been filed on September 18, 1995.[9] Based on a preliminary review of the record, we also found that Transmittal Nos. 883 and 889 raised significant issues of lawfulness regarding the rate levels, rate structures, and terms and conditions of Bell Atlantic's proposed physical collocation and virtual collocation services.[10] We therefore suspended Transmittal No. 883 and Transmittal No. 889 (to the extent Transmittal No. 889 revised Transmittal No. 883) for one day and initiated an investigation into their lawfulness.[11]

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[6] Bell Atlantic provided physical collocation service prior to the Commission's adoption of a mandatory virtual collocation policy in the *Virtual Collocation Order*. *See* Expanded Interconnection with Local Telephone Facilities, CC Docket No. 91-141, Memorandum Opinion and Order, 9 FCC Rcd 5154 (1994) (*Virtual Collocation Order*).

[7] Bell Atlantic Tariff F.C.C. No. 1, Transmittal No. 883 (filed June 4, 1996).

[8] *See id.* at Workpaper 5-10. *See also* Local Exchange Carriers' Rates, Terms and Conditions for Expanded Interconnection Through Virtual Collocation for Special Access and Switched Transport, CC Docket No. 94-97, Phase I, Report and Order, 10 FCC Rcd 6375, Appendix C (*Virtual Collocation Phase I Order*) (1995).

[9] *Bell Atlantic Tariff Suspension Order* at ¶¶ 4, 15.

[10] *Id.* at ¶ 14.

[11] *Id.*

5. On May 6, 1996, PRTC filed Transmittal No. 2, which introduced PRTC's initial rates, terms, and conditions for expanded interconnection through virtual collocation for special access and switched transport services.[12] Based on a preliminary review of the record, we found that the provisions in PRTC's Transmittal No. 2 raised significant questions of lawfulness regarding cost allocations, rate levels, rate structures, and terms and conditions of service. We therefore suspended Transmittal No. 2 for one day and initiated an investigation into the lawfulness of its provisions.[13]

6. On July 2, 1996, Ameritech filed Transmittal No. 981, which proposed to reinstate Ameritech's physical collocation service.[14] Based on a preliminary review of the record, we found on August 29, 1996, that the physical collocation provisions in Ameritech's Transmittal No. 981 raised significant questions of lawfulness regarding cost allocations, rate levels, rate structures, and terms and conditions of service. We therefore suspended Transmittal No. 981 for one day and initiated an investigation into the lawfulness of its provisions.[15]

7. As set forth below, we now designate issues regarding the proposed rates, rate structure, and terms and conditions of Bell Atlantic's and Ameritech's physical collocation tariffs. We also designate issues regarding the proposed rates, rate structure, and terms and conditions of Bell Atlantic's and PRTC's virtual collocation tariffs.

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[12] PRTC Tariff F.C.C. No. 1, Transmittal No. 2 (filed May 6, 1996). In the *Special Access Expanded Interconnection Order*, the Commission required all Tier 1 local exchange carriers (LECs), except NECA pool members, to offer expanded interconnection service. Expanded Interconnection with Local Telephone Facilities, CC Docket No. 91-141, Report and Order and Notice of Proposed Rulemaking, 7 FCC Rcd 7369, 7398 (1992) (*Special Access Expanded Interconnection Order*), *first recon.*, 8 FCC Rcd 127 (1992) (*First Reconsideration Order*), *second recon.*, 8 FCC Rcd 7341 (1993) (*Second Reconsideration Order*). PRTC was the only Tier 1 LEC that was a NECA pool member. *See Special Access Expanded Interconnection Order*, 7 FCC Rcd at 7398. In its 1996 annual access tariff filing, PRTC notified the Commission that it was withdrawing from the NECA pool, effective July 1, 1996. *See* Letter from Gladys Batista Torres of PRTC to Office of the Secretary, Federal Communications Commission (dated April 2, 1996). Upon its withdrawal from the NECA pool, PRTC became subject to the requirement that every Tier 1 local exchange carrier (LEC) not a member of NECA file an expanded interconnection tariff. *See Special Access Expanded Interconnection Order*, 7 FCC Rcd at 7489-90.

[13] *PRTC Tariff Suspension Order*, 11 FCC Rcd at 9410.

[14] Ameritech Tariff F.C.C. No. 2, Transmittal No. 981 (filed July 2, 1996). Ameritech refers to this physical collocation offering as "the new physical collocation service Ameritech Central Office Interconnection."

[15] *Ameritech Tariff Suspension Order,* 11 FCC Rcd at 10182.

III. ISSUES DESIGNATED FOR INVESTIGATION

A. Rate Structure

1. Background

8. In the *Special Access Expanded Interconnection Order,* the Commission determined that it would not require any particular rate structure for expanded interconnection offerings, although it required LECs to establish a cross-connect element that applies uniformly to both physical and virtual collocation.[16] Instead, the Commission directed the LECs to establish reasonably disaggregated rate elements for connection charges for expanded interconnection. In the *Second Reconsideration Order*, the Commission clarified that a rate structure must meet two standards in order to be considered reasonable: (1) a rate structure must reflect cost-causation principles, *i.e.*, the manner in which costs are incurred in providing expanded interconnection service; and (2) a rate structure must be unbundled to ensure that interconnectors are not forced to pay for services that they do not need.[17] In the *Virtual Collocation Order*, the Commission affirmed these principles with respect to both virtual collocation and physical collocation, and clarified that LECs' rate structures should be clear and easy to understand and that each rate element should logically relate to the service function provided under that rate element.[18]

2. Pleadings

9. Ameritech imposes four nonrecurring fiber slicing charges on the collocated customer: cable vault splicing with different rates for initial and subsequent fiber splicing; and splice testing, again with different rates for initial and subsequent splice testing.[19] MFS argues that this provision, which imposes a higher initial charge for both splicing and testing, enables Ameritech to assess arbitrary charges and inflate interconnectors' costs.[20]

10. With regard to PRTC's tariff, Centennial states that PRTC proposes individual case basis (ICB) rates for DS1 and DS3 cross-connects and argues that PRTC should instead be required to tariff specific non-recurring charges for cross-connects, and to provide complete cost support for its proposed rate levels.[21] According to Centennial, PRTC has not

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[16] *Special Access Expanded Interconnection Order,* 7 FCC Rcd at 7425.

[17] *Second Reconsideration Order*, 8 FCC Rcd at 7368.

[18] *Virtual Collocation Order*, 9 FCC Rcd at 5186.

[19] Ameritech Tariff F.C.C. No. 2, §§ 16.1.3(D), 16.1.3(E).

[20] MFS Petition re: Ameritech at 9.

[21] Centennial Petition at 6-7.

demonstrated why cost variations would prevent it from developing an average installation cost. Centennial argues that using ICB rates for nonrecurring cross-connect costs enables PRTC to circumvent the Commission's rate review process and creates opportunities for discriminatory, anticompetitive treatment of interconnectors.[22]

11. In its reply, PRTC states that its ICB rates offered in Transmittal No. 2 are appropriate and conform to the Commission's criteria for ICB pricing.[23] Specifically, PRTC asserts that: expanded interconnection is a service not previously offered by PRTC; that the ICB rates will be used only as an interim transitional measure; that PRTC will soon develop averaged rates for expanded interconnection; and that PRTC will provide cost support in accordance with the standards set forth in Section 61.38 of the Commission's rules.[24]

3. Information Requirements

12. Based on a review of the record, the Bureau concluded that investigation of the rate structures developed by Ameritech and PRTC was warranted.[25] We have reviewed the arguments of the parties, and now designate for investigation the issue of whether the LECs have justified the rate structures established in their physical and virtual collocation tariffs. The Bureau, therefore, directs Ameritech and PRTC to provide the information requested below. This information will permit the Commission to determine whether the LECs' rate structures comport with the standards set forth in the *Virtual Collocation Order*.

a. Ameritech

i. Nonrecurring Charges for Central Office Buildout and Transmission Node Enclosure That Recover Recurring Costs

13. Ameritech recovers the present value of recurring costs that it may incur over the first seven years of a collocation arrangement in its initial nonrecurring rates for central office buildout and transmission node enclosure.[26] We require Ameritech to explain why the use of such a costing methodology is reasonable. We direct Ameritech to state whether it agrees that recovering recurring costs through recurring charges would ensure that the interconnector would only pay for those costs that are actually incurred. We also require Ameritech to explain why, in those cases in which an interconnector discontinues taking

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[22] *Id.*

[23] PRTC Reply at 1-4.

[24] *Id.* at 4-5.

[25] *See Ameritech Tariff Suspension Order,* 11 FCC Rcd at 10182; *PRTC Tariff Suspension Order*, 11 FCC Rcd at 9410.

[26] Ameritech Transmittal No. 981, Description and Justification at 10.

service before all the recurring costs are incurred, it would be reasonable for Ameritech to recover such costs from that interconnector.

ii. Payment for the Transmission Node Enclosure by a Subsequent Interconnector

14. Ameritech's tariff states that when an initial interconnector that has paid for a transmission node enclosure (*i.e.*, a cage) discontinues collocation service and a subsequent interconnector uses that cage, Ameritech will not charge the subsequent interconnector for use of the cage.[27] Ameritech's tariff does not provide for a refund to the initial interconnector. Under the same scenario, Bell Atlantic's tariff states that it will impose on the subsequent interconnector a nonrecurring charge equal to the undepreciated value of the cage, and will provide a pro rata refund to the initial interconnector for the undepreciated value of the cage.[28]

15. We require Ameritech to explain why it is equitable for the initial interconnector to bear the full cost for cage construction and the subsequent interconnector to bear no cost, particularly in cases where the initial interconnector occupied the cage for only a short period of time. We direct Ameritech to explain why the Commission should not require Ameritech to make a pro rata refund to the initial interconnector for the undepreciated value of the cage, and permit Ameritech to impose on the subsequent interconnector a nonrecurring charge equal to the undepreciated value of the cage.

iii. Cable Splicing Charges

16. Additionally, we require Ameritech to respond to MFS's allegation that Ameritech's nonrecurring charges for cable splicing are unreasonable. We require Ameritech to explain why the cost of initial fiber splicing and splice testing is higher than the cost of subsequent fiber splicing and splice testing.

b. PRTC's Nonrecurring Charges For Equipment and Cross-Connect Installation, Training, and Equipment and Cable Maintenance

17. PRTC charges its virtual collocation interconnectors nonrecurring rates for equipment and cross-connect installation, training, and equipment and cable maintenance. It assesses these charges on a time and materials basis, using hourly labor rates set forth in Section 17.4.3 of PRTC Tariff F.C.C. No.1.[29] In the *Special Access Expanded Interconnection Order,* the Commission stated that cross-connect elements and any future

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[27] Ameritech Tariff F.C.C. No. 2, § 16.1.2(A)(4)(d).

[28] Bell Atlantic Tariff F.C.C. No. 1, § 19.3(P).

[29] PRTC Transmittal No. 2, Description and Justification at 1-2.

contribution charge must appear in generally available tariffs at study-area-wide averaged rates.[30] The *Special Access Expanded Interconnection Order* further stated that while charges for certain other connection elements may reasonably differ by central office due to variations in cost, they should be uniform for all interconnectors in each individual office.[31] It also stated that total charges may differ if different interconnectors use different amounts of space, desire arrangements that require different amounts of time and materials to construct, or have different preferences regarding installation, maintenance, and repair by LEC personnel. The unit charges, however, should be uniform in each central office.[32]

18. Although PRTC states that it assesses nonrecurring rates on a "time and materials" basis for equipment and cross-connect installation, training, and for equipment and cable maintenance, and PRTC's tariff imposes hourly labor rates that apply to these rate elements, PRTC's tariff does not establish charges for materials.[33] PRTC must explain whether performing the virtual collocation functions for which these rates are charged requires materials in addition to labor. If PRTC proposes to charge for materials when it performs these functions, PRTC must explain in more detail what those materials are, and how those charges are to be calculated. Moreover, PRTC must explain in detail why assessing a nonrecurring rate for cross-connection installation on a time and materials basis does not violate the specific requirement set forth in the *Special Access Expanded Interconnection Order* that the cross-connect element be provided pursuant to generally available tariffs at study-area-wide averaged rates.

B. Direct Costs

1. Background

19. The direct costs of providing physical or virtual collocation service include capital costs (*i.e.*, depreciation, cost of money, and income taxes) and operating costs (*i.e.*, maintenance costs, administrative costs, and property and other taxes that are not income taxes) that are attributable to physical or virtual collocation service. In the *Virtual Collocation Order*, the Commission stated that the LECs' determination of their direct costs of providing physical or virtual collocation service must be based on methodologies consistent with those the LECs used to calculate direct cost for similar types of new service offerings, unless the LECs can justify different methodologies.[34] To ensure that the LECs' virtual

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[30] *Special Access Expanded Interconnection Order*, 7 FCC Rcd at 7442.

[31] *Id.*

[32] *Id.*

[33] PRTC Transmittal No. 2, Description and Justification at 1-2.

[34] *Virtual Collocation Order*, 9 FCC Rcd at 5187-88.

collocation tariffs meet this requirement, the Bureau's *TRP Order* required LECs to submit direct cost studies for their virtual collocation services and to explain the costing methodologies used to develop the direct costs of these services.[35] To facilitate the Commission's analysis of the LECs' direct costs of providing virtual collocation services, the *TRP Order* required LECs to assign each of their virtual collocation rates, direct costs, investments, and overhead ratios to one of seven tariff review plan "functions" delineated in a uniform format.[36] To the extent that any LECs choosing to provide physical collocation in particular central offices wished to file revisions to their currently effective physical collocation tariffs, the *TRP Order* required those LECs to submit their physical collocation rates, direct costs, investments, and overhead ratios on tariff review plans in the format appended to the Bureau's *Designation Order*.[37] The tariff review plans specified in that Order required these LECs to submit these data for 14 physical collocation functions in a uniform format.[38]

2. Pleadings

20. *Ameritech.* MCI and MFS state that Ameritech's proposed nonrecurring central office build-out charge of $39,015 per 100 square foot is unreasonably high,[39] and MFS complains that Ameritech's cage costs exceed those filed by other LECs.[40] MCI argues that Ameritech's floor space charge includes extraneous costs related to heating, ventilation, and air conditioning upgrades and opposes proposed charges for accompanying interconnector-employees to washrooms and restrooms without a secure entrance.[41] MFS further argues that Ameritech's recurring charges for floor space are unreasonably high and that Ameritech uses

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[35] Commission Requirements for Cost Support Material To Be Filed with Virtual Collocation Tariffs for Special Access and Switched Transport, Tariff Review Plan Order, 9 FCC Rcd 5679, 5680, 5682 (1994) (*TRP Order*).

[36] We defined seven functions in the *TRP Order* to match seven service components that together make up a virtual collocation arrangement. *Id.* at 5682. Our TRP requirement for uniform cost reporting by function did not mandate a uniform rate structure but has permitted the Commission to identify particular costs recovered by the LECs' different rate elements. *Id.*

[37] *Id.* at 5685-5708.

[38] We had defined 14 functions in the *Physical Collocation Designation Order* to match 14 service components that together make up a physical collocation arrangement. *See* Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection for Special Access, CC Docket No. 93-162, Order Designating Issues for Investigation, Appendix C, 8 FCC Rcd 6909, 6930-65 (Com.Car.Bur. 1993) (*Physical Collocation Designation Order*).

[39] MFS Petition re: Ameritech at 13-14; MCI Petition re: Ameritech at 6.

[40] MFS Petition re: Ameritech at 14.

[41] MCI Petition re: Ameritech at 6.

a methodology to set those charges that is based on investment without adjustment for amortization and includes overheads that are recovered through other services and fees collected from interconnectors.[42]

21. MFS states that Ameritech's recurring monthly charge of $89.95 for provision and installation of the 200-conductor electrical cross-connection block is extraordinarily high.[43] MFS states that it can provide and install the 200-conductor electrical cross connection block at substantially less expense and requests that the Commission require all LECs to permit interconnectors to provide their own termination blocks.[44] MFS also objects to Ameritech's requirement that DS1 and DS3 repeaters be placed between the interconnector's cage and Ameritech's equipment.[45]

22. In its reply, Ameritech states that it does not require interconnectors to obtain repeaters from Ameritech and has no objection to interconnectors placing their own repeaters in collocated space.[46] Ameritech states that if the interconnector provides cable that conforms with Ameritech requirements for indoor and outdoor use and that meets appropriate National Electric Safety Code standards, no splicing would be necessary.[47] Calling MFS' concerns over additional charges "exaggerated," Ameritech asserts that it has no incentive to schedule splicing in such a manner as to impose additional charges on the interconnector.[48]

23. *Bell Atlantic.* MCI, MFS, and Teleport argue that Bell Atlantic's proposed rates for physical collocation are unreasonably high compared to those offered by other LECs,[49] and that Bell Atlantic has not provided cost support data to justify its rates.[50] According to Teleport, Bell Atlantic has inflated its costs by choosing to provide all DS3 cross-connections using electronic digital cross-connect devices and by including unnecessary investments, such as point of termination bays.[51] In a related argument, MFS asserts that use

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[42] MFS Petition re: Ameritech at 13.

[43] *Id.* at 11.

[44] *Id.*

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

[46] Ameritech Reply at 12.

[47] *Id.* at 14.

[48] *Id.*

[49] Teleport Petition at 3, 5; MFS Petition re: Bell Atlantic at 15-17.

[50] Teleport Petition at 5; MCI Petition re: Bell Atlantic at 5-7.

[51] Teleport Petition at 4-5.

of technologically advanced systems should reduce, not increase, costs.[52] Teleport urges the Commission to require Bell Atlantic to recalculate its rates using more reasonable annual cost factors.[53] MCI states that it is impossible to determine why Bell Atlantic's unit investment cost for a virtual collocation cross-connect is nearly three times more than the unit investment for a physical collocation cross connect.[54]

24. In its reply, Bell Atlantic contends that its tariff is consistent with all existing Commission requirements and that petitioners raise no issues that warrant suspension and investigation.[55]

25. *PRTC.* Centennial argues that PRTC's proposed virtual collocation rate levels are unreasonably high in comparison to the rates of the Regional Bell Operating Companies (RBOCs).[56] Noting that PRTC failed to submit a standardized price-out of 100 DS1 circuits in its TRP, as required by the Commission's *TRP Order*,[57] Centennial has submitted sample price-outs using PRTC's proposed rates and substituting "conservative assumptions" for PRTC's ICB rate elements. Centennial claims that these sample price-outs demonstrate that PRTC's rate levels are excessive.[58] Centennial also asserts that PRTC's proposed charge for a floor space element is improper and should be eliminated, and that PRTC's overhead loadings are excessive.[59] Centennial further claims that PRTC's proposed charge for floor space results in double recovery of land and building costs because land and building costs are included in the calculation of the overhead loadings applied to floor space direct costs but also charged as an additional rate element.[60]

26. PRTC defends its ICB pricing elements and argues that its rates should not be compared to the RBOCs' rates because PRTC's costs are higher than those of the RBOCs.[61] In addition, PRTC argues that Centennial's estimation of PRTC's rates is based on a fictitious

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[52] MFS Petition re: Bell Atlantic at 17-18.

[53] Teleport Petition at 7-8.

[54] MCI Petition re: Bell Atlantic at 6.

[55] Bell Atlantic Reply at 1-9.

[56] Centennial Petition at 4-6.

[57] *See TRP Order*, 9 FCC Rcd at 5683.

[58] Centennial Petition at 5-6.

[59] *Id.* at 13-14.

[60] *Id.* at 7-8.

[61] PRTC Reply at 6-7.

price-out using assumed prices that do not represent true costs of service.[62] PRTC contends that its overhead loadings have been calculated in accordance with the Commission's rules and that any impact on interconnectors from double recovery would be *de minimis*.[63]

3. Information Requirements

27. We have reviewed the record and the arguments of the parties, and designate for investigation the issue of whether the LECs have justified the direct cost components of their physical and virtual collocation rates. In order to investigate this issue, the Bureau directs Ameritech, Bell Atlantic, and PRTC to provide the information requested below.

a. General Information Requirements

i. TRP Charts for Physical Collocation Service

28. We require Ameritech and Bell Atlantic to submit TRP charts that display their DS1 and DS3 physical collocation investments, direct costs, and prices. We also require Bell Atlantic to submit separate TRP charts that display these data for its short-term DS3 physical collocation service. The TRP charts must comply with the format developed in Appendix A of this Order. Appendix A of this Order includes precise instructions for completing these TRP charts. All investments, annual cost factors, direct capital costs, direct operating expenses, and prices for providing the 14 physical collocation functions identified by the Bureau in the *Physical Collocation Designation Order* are to be set forth on these TRP charts.[64]

29. We are requiring these LECs to allocate these data among the 14 functions in order to eliminate any confusion over the costs to be recovered by rates for particular rate elements and to facilitate our investigation into the reasonableness of the rate levels established in these LECs' physical collocation tariffs. Depending on the rate structure chosen by an individual LEC, a particular function may include several rate elements. Conversely, in some instances, a rate element may include costs for more than one function. These 14 functions are identified and explained below.

Costs of the Collocation Facility in the Central Office

(1) Floor Space. Floor space direct costs include costs for occupancy of central office floor space by the interconnector, including all ancillary and

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[62] *Id.* at 5.

[63] *Id.* at 8-10.

[64] *Physical Collocation Designation Order*, 8 FCC Rcd at 6930-65.

"housekeeping" services.[65]

(2) Construction Provisioning. Construction provisioning direct costs include the costs of ordering the interconnector's space and cage, *i.e.*, interconnector-specific costs associated with service order processing, pre-construction survey, design and engineering, space preparation, and construction management and coordination.

(3) Interconnector-Specific Construction. Interconnector-specific construction direct costs include the costs for interconnector-specific space construction, *e.g.*, cage construction costs, overhead lighting construction costs, and alternating current (AC) outlet construction costs.[66]

(4) Common Construction. Common construction direct costs include costs related to central office construction required for provision of collocation services that cannot be attributed to a specific interconnector, including (a) all design, engineering, and project management for common construction; and (b) all actual common construction, *e.g.*, common environmental conditioning, common lighting, and common floor reconditioning.[67]

Costs of the Cross-Connection Between the Interconnector's and the LEC's Networks

(5) Cross-Connection Provisioning. Cross-connection provisioning direct costs include costs associated with service order processing, circuit design, installation, and testing for the cross-connection between the interconnector's space and the LEC's main distribution frame (MDF).

(6) Cross-Connection Equipment. Cross-connection equipment direct costs include costs for all equipment between the interconnector's space and the LEC's MDF, *e.g.*, repeaters.[68]

(7) Cross-Connection Cable and Cable Support. Cross-connection cable and cable support direct costs include the costs for all cabling and cable support

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[65] All costs not associated with occupancy, *e.g.*, DC power equipment and termination equipment, are excluded from this function.

[66] Costs relating to DC power installation, security installation, termination equipment, and common construction are excluded from this function.

[67] Cost related to direct current (DC) power installation and security installation are excluded from this function.

[68] Cable, cable support, and all termination equipment are excluded from this function.

structures between the interconnector's space and the LEC's MDF.

(8) Termination Equipment. Termination equipment direct costs include the costs for all LEC-provided equipment in or adjacent to the interconnector's space that is used for cross-connection functions, except the cross-connection itself, *e.g.*, point of termination (POT) frames, DSX boards, as well as equipment bays and other equipment installed by the LEC in the interconnector's space.

Electric Power Costs

(9) DC Power Installation. DC power installation direct costs include all costs for installation of DC power equipment for use by the interconnector.

(10) DC Power Generation. DC power generation direct costs include the costs for providing DC power, excluding DC power installation costs. DC power generation direct costs include the cost of AC power converted to DC power for the interconnector's use.

Security Costs

(11) Active Security. Active security direct costs include the costs for providing additional security attributable to collocation, excluding security installation costs. This function includes the costs of providing extra security guards or escort service.

(12) Security Installation. Security installation direct costs include all the costs for all construction associated with additional security needs attributable to collocation.

Costs of the Facilities Connecting the Interconnector's Node Inside the Central Office to Its Network Outside the Building

(13) Entrance Facility Installation. Entrance facility installation direct costs include the costs of installing an interconnection arrangement from the manhole to the interconnector's space. The term "interconnector's space" refers to the central office area where the interconnector's cage would ordinarily be located.

(14) Entrance Facility Space. Entrance facility space direct costs include the costs of conduit, vault, riser, and similar space used to support an interconnection arrangement from the manhole to the interconnector's space.

30. To gauge the overall service cost of a sample interconnection configuration, we require that Ameritech's and Bell Atlantic's DS1 TRP charts reflect the overall cost for physical collocation service, assuming the provision of 100 DS1s. For the same reason, we

require that these LECs' DS3 TRP charts reflect the overall cost for physical collocation service, assuming the provision of four DS3s. Ameritech's and Bell Atlantic's physical collocation costs set forth on these TRP charts also must reflect the assumptions that 100 square feet of caged physical collocation space within the central office and 40 amps of DC power are used for providing these DS1 and DS3 volumes. Nonrecurring direct costs are to be amortized over a 60 month period at an 11.25 percent interest rate. In addition, Ameritech and Bell Atlantic must use reasonable assumptions for the quantity of other inputs (e.g., cable lengths) needed to provide 100 DS1s and four DS3s and identify and explain the basis for these assumptions in their filings. In developing its costs on the TRP charts, Ameritech must assume that it will install the customer-provided outside plant entrance cable and riser cable.[69] Ameritech also must assume that it will maintain the customer's cable and associated equipment, *e.g.*, outside the physical collocation space.[70] This maintenance will include costs for riser cable, cableways, cable between the manhole and the physical collocation space, and cable between the physical collocation space and the cross-connection panel.

31. Ameritech and Bell Atlantic also must identify on these TRP charts any physical collocation rate element for which they develop a rate that recovers the costs of more than one of these 14 physical collocation functions, and must allocate the rate and the direct cost associated with that rate among the subset of the 14 physical collocation functions for which the rate recovers some costs.[71] They must also demonstrate that the sum of the allocated amounts of the unit direct cost and the unit rate associated with each such rate element equal the unit direct cost and unit rate, respectively, of the unallocated rate.

ii. TRP Charts for Virtual Collocation Service

32. We require Bell Atlantic and PRTC to submit TRP charts that display their DS1 and DS3 virtual collocation investments, direct costs, and prices. In addition, we require Bell Atlantic to submit TRP charts that display these data for its short-term DS3 virtual collocation service.

33. These TRP charts must comply with the format developed in Appendix C of this Order. Precise instructions for completing these TRP charts are set forth in Appendix A.[72] All investments, annual cost factors, direct capital costs, direct operating expenses, and

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[69] Ameritech installs the customer-provided outside plant entrance cable and riser cable at the customer's request. *See* Ameritech Transmittal No. 981, Description and Justification at 2.

[70] Ameritech maintains the customer's cable and associated equipment at the customer's request. *See Id.*

[71] Ameritech and Bell Atlantic must allocate these rates and direct costs in accordance with the instructions set forth in Appendix A.

[72] There is one set of instructions for completing the physical collocation and virtual collocation TRP charts because the LECs are required to submit the same type of data on these charts for physical and virtual collocation and the format on these charts for collecting these data is identical.

prices for providing the seven virtual collocation functions identified by the Bureau in the *TRP Order* must be set forth in the Bell Atlantic and PRTC TRP charts.[73] The seven virtual collocation functions are identified and explained below.

(1) Provisioning. Provisioning direct costs include all costs associated with service order processing and design engineering for equipment dedicated to the interconnector.

(2) Entrance Facility. Entrance facility direct costs include the cost of conduit, vault, riser, and similar space required to connect the point of interconnection of the interconnector's and LEC's networks to the point of termination, *i.e.*, to the central office terminating equipment dedicated to the interconnector.

(3) Termination. Termination direct costs include all costs of equipment, *e.g.*, the optical line terminating multiplexer (OLTM) unit and equipment bay, that are used in terminating the entrance cable dedicated to the interconnector.

(4) Cross-Connection. Cross-connection direct costs include costs for all cabling and cable support structures between the LEC's main distribution frame (MDF) and the central office terminating equipment dedicated to the interconnector.

(5) Equipment Installation. Equipment installation direct costs include the costs of installing, and initially testing the central office equipment dedicated to the interconnector.

(6) Maintenance and Repair. Maintenance and repair direct costs include the costs of maintaining and repairing all central office equipment dedicated to the interconnector.

(7) Technician Training. Technician training direct costs include the LEC's costs of training its technicians to install, repair, or maintain the interconnector-designated electronic equipment with which the technicians are unfamiliar.

34. Bell Atlantic's and PRTC's DS1 TRP charts must reflect the overall cost for virtual collocation DS1 service, assuming the provision of 100 DS1s. These LECs' DS3 TRP charts must reflect the overall cost for virtual collocation DS3 service, assuming the provision of four DS3s. Nonrecurring direct costs are to be amortized over a 60 month period at an 11.25 percent interest rate. In addition, Bell Atlantic and PRTC must use reasonable assumptions for the quantity of other inputs (*e.g.*, cable lengths) needed to provision 100 DS1s and four DS3s and identify and explain the basis for these assumptions in their filings.

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[73] *TRP Order*, 9 FCC Rcd at 5682.

35. Bell Atlantic and PRTC also must identify on these TRP charts any virtual collocation rate element for which they develop a rate that recovers the costs of more than one of these seven virtual collocation functions, and must allocate the rate and the direct cost associated with that rate among the subset of the seven virtual collocation functions for which the rate recovers some costs.[74] They must also demonstrate that the sum of the allocated amounts of the unit direct cost and the unit rate associated with each such rate element equal the unit direct cost and unit rate, respectively, of the unallocated rate.

iii. Other Cost Justification

36. In the *Special Access Expanded Interconnection Order*, the Commission required LECs to file physical collocation tariffs and justify those tariffs by providing detailed cost support information under its rules governing new services under price cap regulation.[75] In the *Virtual Collocation Order*, the Commission affirmed that price cap LECs must derive expanded interconnection direct costs to satisfy the new services test, and required that rate of return LECs submit the cost information required to justify rates for their new services.[76] Under the Commission's rules, both price cap LECs and rate of return LECs must file detailed, albeit different, cost support to ensure that such rates are just and reasonable. Under the rules, this cost support must specifically include: (1) cost studies identifying the direct costs of providing the new service; and (2) workpapers containing the information underlying the cost studies and a clear explanation of how the workpapers relate to the cost studies.[77]

37. Accordingly, we require Ameritech, Bell Atlantic, and PRTC to file a copy of all cost studies on which their proposed rates for physical and virtual collocation are based. For Ameritech, this requirement includes both cost studies supporting rates that the company developed for the first time when it filed Transmittal No. 981 and cost studies supporting rates in Transmittal No. 981 that Ameritech originally developed for prior physical collocation tariff transmittals.

38. Ameritech, Bell Atlantic, and PRTC must fully document and completely explain the data, assumptions, and the methodologies on which all physical and virtual collocation investments, direct capital costs, and direct operating expenses are based. These carriers also must submit, as part of this documentation, worksheets showing the data and

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[74] Ameritech and Bell Atlantic must allocate these rates and direct costs in accordance with the instructions set forth in Appendix A.

[75] *Special Access Expanded Interconnection Order*, 7 FCC Rcd at 7428-31.

[76] *Virtual Collocation Order*, 9 FCC Rcd at 5187. Section 61.49(h) of the Commission's rules governs the cost support that price cap LECs are required to submit for new services, and Section 61.38(b)(2) and 61.38(c) of the Commission's rules sets forth the cost support that rate of return LECs are required to submit for new services. *See* 47 C.F.R. §§ 61.49(h), 61.38(b)(2), 61.38(c).

[77] *See* 47 C.F.R. §§ 61.38(b)(2), 61.38(c), 61.49(h).

calculations that underlie these costs. In addition, these carriers must fully explain and justify their annual cost factors. They must explain whether the investments on which their physical and virtual collocation direct costs are based are calculated on a prospective basis, on a historical basis, or on some other basis, and they must justify the approach they use to develop these costs.

39. Ameritech, Bell Atlantic, and PRTC also must indicate the percentage cost of capital or money used in developing their direct costs. This percentage cost of capital must be fully explained and justified to the extent that it exceeds 11.25 percent. Such justifications must fully document and explain the data, assumptions, and methodologies on which these LECs' cost of debt, cost of equity, and capital structure are based. In addition, Ameritech, Bell Atlantic, and PRTC must justify the depreciable lives for plant and equipment listed on their TRP charts.

40. We also require Ameritech, Bell Atlantic, and PRTC to describe each labor function for which costs are recovered in their physical and virtual collocation rates, provide the estimated number of hours required to perform these functions, provide the estimated labor cost for these functions, and fully explain and document the data, assumptions, and the methodologies by which these labor hours and costs are estimated. LECs must describe whether the estimated labor costs reflect only wages, wages plus benefits, wages plus benefits and loadings, or whether these costs are estimated on some other basis. If loadings are included in labor costs, LECs must describe what portion of the reported wage rate is attributable to loadings.

41. Finally, we require Ameritech, Bell Atlantic, and PRTC to provide diagrams clearly identifying each expanded interconnection component and indicate whether the component is owned by the LEC or the interconnector.

b. Specific Information Requirements

42. Based on our initial review of the cost justifications that Ameritech, Bell Atlantic, and PRTC submitted in support of their proposed collocation rates, we conclude that, in order to establish the reasonableness of these rates, these LECs must submit specific information in addition to the general information that we identify above. We are not able to undertake a complete review of the rates of Ameritech, Bell Atlantic, and PRTC in the absence of this specific information. The specific information that we require Ameritech, Bell Atlantic, and PRTC to submit is set forth below.

i. Ameritech

(a) Floor Space Rates

43. Ameritech states that it determines the "total central office collocation floor area required to provide each transmission node" by (1) developing a factor representing the

amount of additional central office space dedicated to providing an interconnector with a 100 square foot transmission node that is used for circulation and unusable space due to building obstructions, and (2) multiplying this factor by the square footage of transmission node.[78] We require Ameritech to explain the methodology by which it developed this factor and provide the step-by-step development of its mathematical value. Ameritech also must explain why it considers the cost associated with this additional central office space to be directly attributable to physical collocation and recoverable as a direct cost of that service, rather than as a cost that is common to all of its services and recoverable as an overhead cost. Ameritech is required to explain in specific terms why this additional space would be attributable to interconnectors when they take physical collocation service from Ameritech.

44. Ameritech derives the "total gross building floor area requirement" by multiplying the total central office collocation floor area by a factor to account for the building space required for support equipment and functions, including access corridors, stairways, space for heating, ventilation and air conditioning equipment, commercial AC power distribution, cable vaults, sewer and water rooms, and fire equipment areas.[79] We require Ameritech to explain the methodology by which it developed this factor and state its mathematical value. Ameritech also must explain why it considers the cost associated with the additional space for which this factor accounts to be directly attributable to physical collocation service and recoverable as a direct cost of that service rather than a cost that is common to all of its services and recoverable as an overhead cost. We direct Ameritech to explain in specific terms why the additional floor space derived by applying the factor should be attributable to interconnectors when they take physical collocation service from Ameritech.

45. Ameritech uses *R.S. Means Building Construction Data* (*R.S. Means Data*) to derive the gross square foot cost of constructing telephone exchange buildings and multiplies this cost by the total gross building floor area requirement to arrive at an amount for 1995 floor space investment.[80] We require Ameritech to file all the pages from the *R.S. Means Data* book that it used to develop the gross square foot cost of construction, to identify the specific data on each page that were used in developing the gross square foot cost of telephone exchange buildings, and to provide a detailed explanation of how these calculations were made. Ameritech must identify the gross square foot cost for each central office for which such cost was calculated and document all calculations that it used to arrive at that cost. We also require Ameritech to file a copy of the explanation set forth in *R.S. Means Data* of the methodology used to derive the construction cost data set forth in that publication. This explanation must identify and justify the assumptions used in the *R.S. Means Data* to determine these construction costs. It also must include a complete explanation of the data upon which the central office floor space investment is based.

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[78] Ameritech Reply at 19.

[79] *Id.*

[80] *Id.* at 20.

46. Ameritech determined 1996 floor space investment levels by multiplying 1995 investment by the Telephone Plant Index (TPI) for buildings.[81] We require Ameritech to provide all pages from the TPI and highlight the specific data on each page that were used in determining 1996 floor space investment levels. Ameritech must show the calculations that underlie the derivation of 1996 floor space investment for each central office for which such investment was calculated, and must identify the publisher of the TPI. Ameritech also must file a complete copy of the publisher's explanation of the methodology used to derive the TPI.

47. Ameritech's central office floor space direct costs include "other recurring expense" of $1,094.40 per month.[82] We require Ameritech to identify the specific costs that comprise these other recurring expenses. Ameritech must fully explain and justify the methodology by which these costs were developed.

(b) Central Office Buildout and Transmission Node Rates

48. Ameritech aggregates investments, capital costs, and operating costs for its central office buildout[83] and transmission node[84] nonrecurring rates. Ameritech must identify the separate pieces of equipment and other assets that collectively comprise the investment on which the direct costs included in these rates are based as investment items on its TRP charts under the appropriate TRP function. For each piece of equipment or other asset, Ameritech must submit complete TRP data separately setting forth the investment amount, annual cost factors, direct capital costs, direct operating costs, and the amount of the charge allocated to these investments from the overall rate that recovers their direct costs. Ameritech must submit this information on the TRP charts for these investment items in accordance with the instructions set forth in Appendix A for completing these charts. In addition, Ameritech must fully explain the methodology used to develop the costs for this equipment or other assets and justify the methodology used to develop these costs. If Ameritech's methodology included a demand forecast, Ameritech must fully explain and justify that forecast.

ii. Bell Atlantic's Physical Collocation Service

(a) Floor Space Rates

49. In developing its central office occupancy rates, Bell Atlantic uses *Black's Office Leasing Guide* (*Black's Guide*) to ascertain the prevailing rate per square foot of office

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[81] *Id.*

[82] Ameritech Transmittal No. 981, Description and Justification, Exhibit 3 at 1.

[83] *Id.* at Exhibit 4 at 2.

[84] *Id.* at Exhibit 4 at 3.

space for different geographic locations.[85] We require Bell Atlantic to provide each page from that publication that it used to develop this rate and to identify the specific data on that page that it used to develop its central office occupancy rates. Bell Atlantic must identify for each central office the rate per square foot set forth in the relevant pages of *Black's Guide* upon which it relied to calculate this rate and the page from which that rate is ascertained. We also require Bell Atlantic to file a copy of the complete explanation of the methodology used to determine the prevailing rate per square foot for different geographic locations in *Black's Guide*. The description of the methodology must include an explanation of the assumptions used to determine the prevailing per square foot rate and a complete explanation of the data upon which the square foot rate is based.

50. Bell Atlantic also used *The Means Cost Estimating Guide* (*Means Guide*) to ascertain the additional costs unique to central office floor space in developing its central office occupancy rates.[86] We require Bell Atlantic to provide each page from that publication and to identify the specific data on that page that were used in developing this rate. Bell Atlantic must identify these additional central office costs by category, *e.g.*, additional costs for higher ceilings to accommodate switch frames, reinforced flooring to support heavier equipment, and appropriate electrical capacity, and the relevant pages from *Means Guide* from which these cost data are ascertained. We also require Bell Atlantic to file a copy of the explanation in the *Means Guide* of the methodology used to determine central office floor space costs. This explanation must identify and justify the assumptions used in the *Means Guide* to determine these costs. It also must include a complete explanation of the data upon which the central office floor space costs are based.

51. Finally, Bell Atlantic must identify and justify any additional costs, (other than those from *Means Guide*) that it added to the rate per square foot set forth in *Black's Guide* to develop central office occupancy rates.

(b) Cross-Connection Rates

52. Bell Atlantic states that the "point of interconnection" in its physical collocation arrangements "is the piece of equipment that connects Bell Atlantic's facilities to the Collocator's facilities."[87] We require Bell Atlantic to identify and explain the need for this equipment. Bell Atlantic must explain any differences between the engineering function provided by this piece of equipment and the engineering function provided by a point of termination bay or frame.

53. Bell Atlantic requires DS3 repeaters in 15 percent of its physical collocation

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[85] Bell Atlantic Transmittal No. 883, Description and Justification at 3-8.

[86] *Id.*

[87] *Id.* at 1-3 n.5.

arrangements.[88] We require Bell Atlantic to explain fully why repeaters are needed to provide physical collocation services. In particular, we require Bell Atlantic to explain when a repeater is necessary (*i.e.*, the minimum distance between the interconnector's equipment and Bell Atlantic's transmission equipment before a DS3 repeater is necessary). We direct Bell Atlantic to identify the technical standard underlying this assumption. Further, we direct Bell Atlantic to explain why it is unable in those arrangements to place the interconnector's equipment in close enough proximity to its equipment to obviate the need for repeaters.

54. Bell Atlantic's recurring DS3 cross-connection charge recovers investment in "digital signal physical access point (DSPAP) interface connections."[89] We require Bell Atlantic to explain the engineering function provided by the DSPAP.

55. Bell Atlantic's recurring DS1, DS3, and short-term DS3 physical and virtual cross-connect service charges recover investment in an electronic digital cross-connect (EDSX).[90] We require Bell Atlantic to explain the engineering function provided by the EDSX. In addition, Bell Atlantic must explain whether it is feasible to allow interconnectors to self-provision the EDSX and whether it is feasible to allow interconnectors to purchase a hard-wired digital signal cross-connect (DSX) in lieu of an EDSX.

56. Bell Atlantic provided a diagram of connection elements for physical collocation.[91] This diagram did not, however, identify DSPAP interface connections for DS3 service or fiber cable and LAN cable for DS1 service.[92] We require Bell Atlantic to augment this diagram by including these missing connection elements.

57. Bell Atlantic states that short-term DS3 costs are based on existing DS3 channel termination costs adjusted by a utilization factor of 67 percent to reflect short-term use.[93] We require Bell Atlantic to explain fully the methodology it used to develop this adjustment factor. We also require Bell Atlantic to provide a detailed explanation of the rationale that underlies its application of this utilization factor.

58. Bell Atlantic must identify as an investment item on its TRP charts under the appropriate TRP function: (1) the piece of equipment that connects Bell Atlantic's facilities to the interconnector's facilities; (2) DS3 repeaters; (3) DSPAP interface connections; and (4)

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[88] *Id.* at 3-2.

[89] *Id.*

[90] *Id.* at 3-1.

[91] Bell Atlantic Transmittal No. 883, Description and Justification at 1-12.

[92] *Id.*

[93] *Id.* at 3-3.

the EDSX. For each piece of equipment, Bell Atlantic must submit complete TRP data separately setting forth the investment amount, annual cost factors, direct capital costs, direct operating costs, and the amount of the charge allocated to these pieces of equipment from the overall rate that recovers their direct costs. Bell Atlantic must submit this information on the TRP charts for these investment items in accordance with the instructions set forth in Appendix A for completing these charts. In addition, Bell Atlantic must fully explain the methodology used to develop the costs for this equipment and justify the methodology used to develop these costs.

iii. Bell Atlantic's Virtual Collocation Service

59. Bell Atlantic states that the recurring and non-recurring rate changes proposed for the virtual collocation DS1, DS3, and short-term DS3 cross-connect rate elements reflect the results of a 1996 cost study.[94] We require Bell Atlantic to file a copy of that study.

iv. PRTC

(a) Cost of Money

60. PRTC states that it applies the federal income tax gross-up factor to cost of money requirements to estimate federal income tax requirements.[95] PRTC should apply the federal income tax gross-up factor only to the cost of money requirement for equity capital rather than to the cost of money requirement for debt and equity capital. This is because the interest payments on debt outstanding are tax deductible whereas the dividend payments on the equity outstanding and the earnings that a firm retains are not tax-deductible. We require PRTC to state whether it applies the federal income tax gross-up factor only to the cost of money requirement attributable to equity capital. If not, PRTC must explain how it applies this factor and why this approach is reasonable.

(b) Floor Space Rates

61. PRTC states that the floor space rate for virtual collocation recovers the cost of the floor space required for the interconnector-designated termination equipment in a central office.[96] We require PRTC to explain why it is reasonable to establish a separate virtual collocation floor space rate rather than have any such costs recovered through general overhead loadings. Assuming it does not develop a similar floor space rate for its other interstate access DS1 and DS3 services, PRTC must explain specifically why it is reasonable to do so solely for virtual collocation service. PRTC must also explain the data, assumptions,

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[94] *Id.* at 1-4.

[95] PRTC Transmittal No. 2, Description and Justification, Workpaper 4 n. 7.

[96] *Id.* at Description and Justification at 2.