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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

In the Matter of	)	
	)	
Long-Term Number Portability Tariff Filings	)	
	)	
Ameritech Operating Companies	)	
	)	
GTE System Telephone Companies	)	CC Docket No. 99-35
	)	
GTE Telephone Operating Companies	)	
	)	
Pacific Bell	)	
	)	
Southwestern Bell Telephone Company	)	

MEMORANDUM OPINION AND ORDER

Adopted: July 1, 1999 Released: July 16, 1999

By the Commission: Commissioner Furchtgott-Roth dissenting, and issuing a statement.

Table of Contents

Paragraph Number

I. INTRODUCTION 1

II. BACKGROUND 6

III. OPERATIONS SUPPORT SYSTEMS 12

IV. SIGNALLING AND SWITCHING 54

V. LOADINGS 74

VI. CALCULATION OF OVERHEADS 87

VII. ALLOCATION OF COSTS BETWEEN END-USER AND QUERY SERVICES 101

VIII. NONRECURRING CHARGES 116

IX. QUERYING AN NXX BEFORE A NUMBER IS PORTED 124

X. JURISDICTIONAL SEPARATIONS 142

XI. RATE PRESCRIPTION 159

XII. CONCLUSIONS AND ORDERING CLAUSES 166

I. INTRODUCTION

1. In this Memorandum Opinion and Order, we conclude our investigation of the long-term number portability tariff transmittals filed by Ameritech Operating Companies (Ameritech),[1] GTE System Telephone Companies (GSTC),[2] GTE Telephone Operating Companies (GTOC),[3] Pacific Bell (Pacific),[4] and Southwestern Bell Telephone Company (SWBT).[5] These transmittals establish rates, terms and conditions for the incumbent local exchange carriers' (LECs) provision of long-term local number portability, including the incumbent LECs' end-user charge and query service rates. The original transmittals were filed on January 15, 1999, with an effective date of February 1, 1999. On January 29, 1999, the Competitive Pricing Division (Division) of the Common Carrier Bureau (Bureau) suspended these tariff filings for one day, ordered the incumbent LECs to keep accurate account of all amounts received that are associated with their long-term number portability

[1] *See* Ameritech Long-Term Number Portability Transmittal No. 1186, filed January 16, 1999 with an effective date of February 1, 1999. On January 28, 1999, pursuant to Special Authority No. 99-16, Ameritech filed Transmittal No. 1187 with an effective date of February 1, 1999, revising Transmittal No. 1186.

[2] *See* GSTC Long-Term Number Portability Transmittal Nos. 271 and 275, filed January 15, 1999 with an effective date of February 1, 1999.

[3] *See* GTOC Long-Term Number Portability Transmittal Nos. 1190 and 1196, filed January 15, 1999 with an effective date of February 1, 1999.

[4] *See* Pacific Long-Term Number Portability Transmittal No. 2029, filed January 15, 1999 with an effective date of February 1, 1999.

[5] *See* SWBT Long-Term Number Portability Transmittal No. 2745, filed January 15, 1999 with an effective date of February 1, 1999.

rates, and initiated an investigation into the lawfulness of the tariffs.[6] On February 26, 1999, the Bureau designated specific issues for investigation, and established a pleading cycle.[7]

2. Over the past few months and recently, the incumbent LECs filed revised transmittals to address concerns raised by parties and the Commission during the course of the investigation.[8] Upon review of the revised transmittals the Bureau determined that these transmittals raised the same issues set for investigation in the *Designation Order*.[9] The Bureau suspended the revised transmittals[10] and designated for investigation all issues in the revised transmittals that were set for investigation in the *Designation Order*.[11]

3. During the course of the Commission's five-month investigation, the incumbent LECs' number portability tariff submissions were fully and thoroughly reviewed. Recognizing the complexity of the tariff submissions, the Commission's staff has analyzed all cost and revenue components of them to ensure that each meets the number portability cost

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[6] *Long-Term Number Portability Tariff Filings*, Memorandum Opinion and Order, 14 FCC Rcd 2186 (1999) (*Suspension Order*).

[7] *Long-Term Number Portability Tariff Filings*, 14 FCC Rcd 3367 (1999) (*Designation Order*). The pleading cycle required Direct Cases, Oppositions and Comments, and Rebuttals to be filed on March 29, 1999, April 13, 1999, and April 23, 1999, respectively. This schedule was later revised to require Direct Cases, Oppositions, and Rebuttals on April 5, 1999, April 19, 1999, and April 29, 1999. *See Public Notice*, DA 99-577, released on March 24, 1999.

[8] *See* Ameritech Long-Term Number Portability Transmittal No. 1204, filed May 27, 1999 with an effective date of June 3, 1999; GSTC Long-Term Number Portability Transmittal No. 275, filed February 25, 1999 with an effective date of March 4, 1999; GSTC Long-Term Number Portability Transmittal No. 284, filed June 17, 1999 with an effective date of June 24, 1999; GTOC Long-Term Number Portability Transmittal No. 1196, filed February 25, 1999 with an effective date of March 4, 1999; GTOC Long-Term Number Portability Transmittal No. 1208, filed June 17, 1999 with an effective date of June 24, 1999; Pacific Long-Term Number Portability Transmittal No 2051, filed May 26, 1999 with an effective date of June 10,1999; Pacific Long-Term Number Portability Transmittal No. 2056, filed June 22, 1999 with an effective date of July 7, 1999; SWBT Long-Term Number Portability Transmittal No. 2761, filed May 26, 1999 with an effective date of June 10, 1999; SWBT Long-Term Number Portability Transmittal Nos. 2764 and 2765, filed June 21, 1999 and June 23, 1999, respectively, with an effective date of July 6, 1999.

[9] *Designation Order*, 14 FCC Rcd at 3367.

[10] The rates proposed by Ameritech in Transmittal No. 1204 on May 27, 1999, GSTC in Transmittal No. 284 on June 17, 1999, and GTOC in Transmittal No. 1208 on June 17, 1999 were suspended until August 31, 1999.

[11] *See* Long-Term Telephone Number Portability Tariff Filling, CC Docket No. 99-35, *Memorandum Opinion and Order*, DA 99-714 (rel. Apr. 14, 1999); Long-Term Telephone Number Portability Tariff Filling, CC Docket No. 99-35, *Memorandum Opinion and Order*, DA 99-1071 (rel. June 2, 1999); Long-Term Telephone Number Portability Tariff Filling, CC Docket No. 99-35, *Memorandum Opinion and Order*, DA 99-1136 (rel. June 9, 1999); Long-Term Telephone Number Portability Tariff Filling, CC Docket No. 99-35, *Memorandum Opinion and Order*, DA 99-1231 (rel. June 23, 1999).

recovery standard established by the Commission in the *Third Report and Order*[12] and the guidance provided by the Bureau in the *Cost Classification Order*.[13] The Commission's investigation involved a careful and expert review of the entire record of this proceeding, including the pleadings filed by the incumbent LECs and parties in opposition. Commission staff also responded to requests for *ex parte* discussions on the record, both with the incumbent LECs and other interested parties, aimed at fully understanding and addressing all issues designated in the investigation. Finally, Commission investigators from the Bureau's Accounting Safeguards Division conducted a field examination of SWBT and Pacific's number portability claims to determine whether SWBT and Pacific's tariff filing included only costs allowed under the provisions of the *Third Report and Order* and the *Cost Classification Order*.[14]

4. For the reasons discussed below, we find that we are unable to conclude that certain costs claimed in and the rates set by the tariff submitted by Ameritech are reasonable or lawful. We therefore disallow certain costs and prescribe rates for Ameritech's long-term number portability services based on allowable costs established by all supporting information. Ameritech is directed to file tariff revisions no later than five business days from release of this Order, implementing the prescribed rates, to be effective on one day's notice. These rates will supersede the rates filed in Ameritech Transmittal No. 12, which are currently suspended until August 31, 1999. We also direct Ameritech to refund to its customers, with interest, the difference between our prescribed rates and the rates that took effect on February 1, 1999.

5. Based on the record before us, we find that the rates GTE[15] and SBC[16] have established in revisions to their original tariff transmittals are reasonable and lawful. We, therefore, allow GTE to advance the effective date of its end-user rates, which are currently suspended until August 31, 1999. GTE is directed to file tariff revisions no later than five business days from release of this Order, advancing the effective date of the suspended rates, to be effective on one day's notice. SBC is directed to file supplements reflecting the one-

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[12] *In the Matter of Telephone Number Portability*, Third Report and Order, 13 FCC Rcd 11,701 (1998) (*Third Report and Order*).

[13] *See In the Matter of Telephone Number Portability Cost Classification Proceeding*, Memorandum Opinion and Order, 13 FCC Rcd 24,495, 24,505, para. 22 (1998) (*Cost Classification Order*)

[14] Southwestern Bell Telephone Company Long-Term Local Number Portability Tariff Investigation Field Investigation *Report of Findings* at 3-4 (May 27, 1999), Federal Communications Commission Common Carrier Bureau Accounting Safeguards Division (*SWBT Report of Findings*); Pacific Bell Long-Term Local Number Portability Tariff Investigation Field Investigation *Report of Findings* at 3-4 (May 19, 1999), Federal Communications Commission Common Carrier Bureau Accounting Safeguards Division (*Pacific Report of Findings*).

[15] The GTE Telephone Operating Companies and GTE Systems Telephone Companies are referred to collectively as "GTE" where applicable.

[16] Pacific and SWBT are referred to collectively as "SBC," where applicable.

day suspension within five business days of the release of this order. We emphasize that these new rates are the reasonable rates that should have been in effect from the effective date of the originally filed rates. We also direct GTE and SBC to refund to their customers, with interest, the difference between these rates and the rates that took effect on February 1, 1999.[17]

II. BACKGROUND

6. In the *Third Report and Order*,[18] implementing section 251(e)(2)[19] of the Communications Act of 1934, as amended,[20] the Commission provided guidelines for carrier recovery of costs related to providing long-term local number portability. We divided the costs of number portability into three categories[21] and established that carrier-specific costs directly related to providing number portability could be recovered in two federal charges: (1) a monthly number portability charge recoverable from end-users; and (2) a number portability query-service charge that applies to carriers on whose behalf a LEC performs queries.[22] In addition to providing the general framework for the recovery of long-term number portability costs, the Commission delegated authority to the Bureau to determine appropriate methods for apportioning joint costs[23] among portability and non-portability services, and to issue any order to provide guidance to carriers filing their tariffs.[24]

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[17] We note that because GTE Transmittal Nos. 275 and 1196 became effective on March 4, 1999, GTE's refund period runs from February 1, 1999 to March 4, 1999.

[18] *Third Report and Order*, 13 FCC Rcd 11,701. We note several petitions for reconsideration of this order currently are pending.

[19] 47 U.S.C. § 251(e)(2). Section 251(e)(2) provides in relevant part that the cost of providing number portability "shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."

[20] 47 U.S.C. §§ 151 *et seq.*

[21] Specifically, we found that costs could be categorized as: (1) shared costs; (2) carrier-specific costs directly related to providing number portability; and (3) carrier-specific costs not directly related to providing number portability. *Third Report and Order*, 13 FCC Rcd at 11,738, para. 68.

[22] *Third Report and Order*, 13 FCC Rcd 11,746, 11,778, paras. 142, 147.

[23] *See Cost Classification Order*, 13 FCC Rcd at 24,505, para. 22 (1998) (defining joint costs as incremental costs associated with new investments or expenses that directly support the provision of long-term number portability functions and also support one or more non-long-term number portability functions). Multiple applications for review of this order are pending.

[24] *Third Report and Order*, 13 FCC Rcd at 11,740, para. 75.

7. Pursuant to this authority, on December 14, 1998, the Bureau issued its *Cost Classification Order*.[25] Based on the Commission's determination that only those carrier-specific costs incurred directly for the provision of number portability services would be eligible for recovery through the federal cost recovery mechanism as a local number portability costs,[26] the Bureau established a two-part test for identifying eligible carrier-specific costs. The Bureau determined that these eligible costs were ones that: (1) would not have been incurred by the carrier "but for" the implementation of number portability; and (2) were incurred "for the provision of number portability" service.[27]

8. After reviewing the tariffs filed by Ameritech, GTE and SBC on January 15, 1999, the Bureau determined that the tariffs raised issues of reasonableness, suspended them for one day and set them for investigation.[28] Thereafter, on February 26, 1999, the Bureau released an order designating issues for investigation.[29]

9. Specifically, the Bureau designated for investigation the issues of: (1) whether the Ameritech, GTE, Pacific, and SWBT number portability tariffs include costs the LECs incurred to adapt other Operations Support Systems (OSS) to number portability, in addition to the incremental OSS upgrades that are directly related to number portability and whether these OSS costs are reasonable; (2) whether Ameritech, SWBT and Pacific's use of the Common Channel Switching Cost Information System model (CCSCIS) to estimate their signalling costs of number portability resulted in the inclusion of some embedded costs; (3) whether Pacific and SWBT's use of generic software upgrade costs is reasonable and whether these costs are properly allocated; (4) whether Pacific's use of the overheads proposed to state commissions for unbundled network elements, and SWBT's use of the weighted average factor in calculating incremental overhead attributable to number portability, are reasonable; (5) whether Ameritech, GTE, Pacific and SWBT's methods of allocating the costs between the end-user and query services charges are reasonable; (6) whether SWBT and Pacific's monthly "nonrecurring" query services and Pacific's database access charges are reasonable; (7) whether Pacific and SWBT's demand calculations, which include queries for calls to NXXs where a number has not been ported, are reasonable; and (8) whether separations treatment and intrastate ratemaking treatment may have been or may be accorded to long-term

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[25] *Cost Classification Order*, 13 FCC Rcd at 24,495, 24,505, para. 23.

[26] *Third Report and Order*, 13 FCC Rcd at 11,740 para. 72.

[27] *Cost Classification Order*, 13 FCC Rcd at 24,500, para. 10.

[28] *Suspension Order*, 14 FCC Rcd at 2186.

[29] *Long-Term Number Portability Tariff Filings*, Order Designating Issues for Investigation, 14 FCC Rcd 3367 (1999) (*Designation Order*).

number portability costs.[30] In addition, the Bureau directed Pacific and SWBT to explain the methodology used to calculate generic upgrade costs and the allocation of costs between number portability and non-portability services.[31] The Bureau also directed GTE to explain or correct apparent cost calculations which improperly inflated expenditures anticipated after 1999, and resulted in a high rate of return by compounding the rate of return on a monthly basis.[32] We address all issues set forth in the *Designation Order* for investigation and raised in the pleadings.

10. Ameritech, GTE, Pacific, and SWBT all filed Direct Cases in support of their tariffs on April 5, 1999. Oppositions to the Direct Cases were filed on April 19, 1999, by AT&T, Time Warner, the Ad Hoc Telecommunications Users Committee (Ad Hoc), Arch Communications, Inc. (Arch) and the Personal Communications Industry Association (PCIA). On April 29, 1999, Rebuttals to Oppositions were filed by Ameritech, GTE, SWBT and Pacific.

11. In addition, on our own motion and pursuant to section 204(a) of the Communications Act, as amended, we suspend Pacific Transmittal No. 2056 and SWBT Transmittal Nos. 2764 and 2765 and include them in the investigation in this proceeding. The *Designation Order* sets out the specific issues for the investigation of Pacific Transmittal No. 2029 and SWBT Transmittal No. 2745. We find that Pacific Transmittal No. 2056 and SWBT Transmittal Nos. 2764 and 2765 raise the same issues that were set for investigation in the *Designation Order*.[33] Therefore, we designate for investigation with respect to Pacific Transmittal No. 2056 and SWBT Transmittal Nos. 2764 and 2765 all issues set for investigation in the *Designation Order*.

III. OPERATIONS SUPPORT SYSTEMS

A. Background

12. In the *Third Report and Order*, the Commission established a general cost recovery standard and defined eligible number portability costs as the "costs carriers incur specifically in the provision of number portability services, such as for the querying of calls and the porting of telephone numbers from one carrier to another."[34] In defining eligible

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[30] *Designation Order*, 14 FCC Rcd at 3370, para. 9; 14 FCC Rcd at 3374, para. 18; 14 FCC Rcd at 3377, para. 27; 14 FCC Rcd at 3379, para. 34; 14 FCC Rcd at 3382, para. 43; 14 FCC Rcd at 3383, paras. 44, 46; 14 FCC Rcd at 3384, para. 48; 14 FCC Rcd at 3385, para. 51.

[31] *Designation Order*, 14 FCC Rcd at 3384, para. 48.

[32] *Id.*

[33] *See Designation Order*, 14 FCC Rcd at 3370-3371, 3379, 3385, paras. 8-11, 34-35 and 51.

[34] *Third Report and Order*, 13 FCC Rcd at 11,740, para. 72.

number portability costs, the Commission specifically rejected the carriers' arguments that eligible number portability costs include the "costs that carriers incur as an incidental consequence of number portability."[35] With regard to OSS costs, the Commission concluded that "only a portion of the joint costs of OSS are carrier-specific costs directly related to number portability."[36] This conclusion was based on the Commission's recognition that modifications to OSS systems may provide a wide range of services and features that are not related to the provision of number portability.[37] The Commission also noted that the costs for these services are recoverable by the LECs in their rates for other services.[38]

13. In the *Cost Classification Order*, the Bureau provided the incumbent LECs with guidance on how to identify eligible number portability costs.[39] Using the Commission's general cost recovery standard, the Bureau determined that only the incremental portion of the costs of modifications to the OSS systems related to number portability functions is eligible for cost recovery through the number portability end-user and query service charges.[40] The Bureau further concluded that the incremental portion of the joint costs of OSS modifications is only that portion that represents the difference between the costs of the modifications to OSS systems without the number portability functionality and the total cost of the modifications with the number portability functionality.[41]

14. The Bureau also provided guidance to the incumbent LECs on the cost support information that must be filed with the local number portability tariffs. The Bureau directed the incumbent LECs to make a special showing to establish the eligibility of OSS modification costs where the modification is not dedicated solely to number portability *and* is not available without the number portability functionality, but otherwise meets the two-part eligibility test.[42] Specifically, the incumbent LECs should demonstrate that the sum of all avoided costs and incremental revenues associated with the OSS system does not cover the costs of the upgrade or modification that was made for number portability.[43] The Bureau

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[35] *Id.*

[36] *Third Report and Order*, 13 FCC Rcd at 11,740, paras. 73-74.

[37] *Id.*

[38] *Id.*

[39] *Cost Classification Order*, 13 FCC Rcd at 24,495.

[40] *Id.* at 24,506-07, para. 27.

[41] *Id.*

[42] *Id.* at 24,507, para. 29 (emphasis added).

[43] *Id.*

concluded that eligible number portability costs for OSS modifications should not exceed the remainder of the costs after subtracting all avoided costs and incremental revenues.[44]

15. With regard to advancement costs,[45] the Bureau further concluded that the incumbent LECs may claim only the "advancement" costs associated with the difference between the costs of OSS upgrades with the number portability functionality and the costs without the functionality.[46] The Bureau directed the incumbent LECs to provide evidence demonstrating that the replacement or "advancement" is actually due to number portability and would not have occurred otherwise.[47]

16. In the *Designation Order*, the Bureau designated for investigation the issue of whether the incumbent LECs' number portability tariffs include costs the incumbent LECs incurred to adapt other OSS systems, in addition to the incremental portion of OSS upgrades that is directly related to number portability.[48] The Bureau also designated the issue of whether the OSS costs the incumbent LECs claimed in their number portability tariffs are reasonable and requested that the incumbent LECs provide specific information regarding their OSS modifications. In particular, the Bureau directed the incumbent LECs to file as part of their direct cases an itemized list of OSS costs, arranged by functional area (for example, provisioning, maintenance, etc.). For each OSS modification or augmentation, the Bureau directed the incumbent LECs to provide: (1) the total cost; (2) the cost assigned to number portability; (3) the cost allocations among number portability services; (4) an explanation of how each OSS modification relates to performing queries; (5) an explanation of how each OSS modification relates to porting numbers between carriers; (6) an explanation of how each OSS modification relates to any other number portability function; (7) the basis for cost allocations between number portability and non-number portability services; and (8) the basis for cost allocations among number portability services.[49] For functions other than provisioning of number portability, the Bureau directed the incumbent LECs to explain with specificity why they believe a particular OSS modification or upgrade qualifies as eligible under the *Cost Classification Order*.[50]

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[44] *Id.*

[45] *Id.* at 24,506-07, n.70 (advancement costs are primarily those costs arising from the cost of money or the time value of money that have been incurred for the deployment of upgrades or modifications to the network at an accelerated pace or earlier date than provided for in the LEC's original plans).

[46] *Id.* at 24,508, para. 30.

[47] *Id.*

[48] *Designation Order*, 14 FCC Rcd at 3371, para. 9; *see also Suspension Order*, 14 FCC Rcd at 2187, para. 3.

[49] *Id.* at 3371, para. 10.

[50] *Id.* at 3371, para. 9.

17. The Bureau also directed the LECs to provide specific information as to how the OSS modifications alter the tasks performed and further directed the LECs to explain for each OSS modification the manner in which it alters the nature of the task or function previously performed, and why this alteration is necessary "for the provision of portability." In addition, the Bureau observed that some OSS costs appeared related to revising OSS systems to perform 10-digit translations and required the LECs to identify these costs and demonstrate that they will not benefit Custom Local Area Signalling Services (CLASS), area code overlays, or other services.[51] In the alternative, the Bureau directed the LECs to show how costs were allocated among services that benefit from the changes.[52]

B. Direct Cases

18. In their Direct Cases, the incumbent LECs address the OSS cost issues identified for investigation in the *Designation Order*. Ameritech states that the OSS costs claimed in its Direct Case meet the requirements set out in paragraphs 9 and 10 of the *Designation Order*.[53] In Ameritech's Direct Case, it provides Appendix C, listing 20 OSS systems and the costs of modifications to those systems that Ameritech seeks to recover as eligible number portability costs.[54] Ameritech contends that Appendix C explains why each OSS-related cost was required for pre-ordering, ordering, provisioning, repair, maintenance, or billing of number portability.[55] Ameritech also contends that Appendix C specifies how each OSS modification alters the nature of the task or function previously performed and explains why this modification is necessary in accordance with paragraph 11 of the *Designation Order*.[56] Ameritech refers to its pending petition for clarification of the *Cost Classification Order* where it argues that the language of paragraphs 7 through 14 of the *Designation Order* may be misconstrued as denying recovery of all OSS-related costs, even if those costs are incremental to number portability.[57] Ameritech requests that the Commission clarify the intent of this language.[58]

19. Ameritech also states that in all cases except one, the OSS costs it claims relate to equipment, facilities, or software required solely as a result of number portability and are

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[51] CLASS services are customized services such as call forwarding, call waiting, and caller ID.

[52] *Designation Order*, 14 FCC Rcd at 3371, para. 10.

[53] Ameritech Direct Case at 21-22.

[54] *Id.* at Attachment C.

[55] *Id.* at 22.

[56] *Id.*

[57] *Id.*

[58] *Id.*

dedicated to number portability.[59] The modification to the Enhanced Mechanized Assignment and Control System (EMAC) also benefits other services.[60] Ameritech states that the costs were allocated between number portability and non-portability services based upon relative capacity utilization.[61] As additional support for the recovery of its OSS costs, Ameritech cites to a statement made by the Commission in Ameritech and BellSouth's respective section 271 proceedings. Ameritech claims that there the Commission held that "when a BOC demonstrates that it is providing LNP '[w]e also would expect to review evidence demonstrating that the BOC will provide access to OSS to support the provision of number portability.'"[62] Ameritech contends that the statement is evidence that the Commission has recognized that access to OSS is an integral part of the provision of number portability.[63]

20. GTE states that its OSS costs were developed from vendor quotes.[64] GTE also states that any OSS costs that are dedicated to either end-user or query services are directly assigned to those services and that the costs shared between the two were allocated using the same methodology used with shared costs.[65] GTE further states that its February 25, 1999 filing provided the information the Bureau requested at paragraph 10 of the *Designation Order*.[66] GTE claims that Worksheets SUPP_1 through SUPP_40 provide the information requested in questions 1, 2, 3, 7, and 8 of the order, while GTE Attachment 3 provides the responses to questions 4, 5, and 6.[67] GTE also claims that its Direct Case provides a description of each OSS addition or modification by function,[68] explains how each

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[59] *Id.* at 23.

[60] We note that Ameritech reduced the amount of costs for EMAC subsequent to filing its Direct Case. *See Ex Parte* Letter from James K. Smith, Ameritech, to Magalie Roman Salas, FCC, dated May 11, 1999, Appendix C, at 5.

[61] Ameritech Direct Case at 23.

[62] *Id.* at 24.

[63] *Id.* at 24 (*citing* Application of Ameritech, Pursuant to Section 271 of the Communications Act of 1934, To Provide In-Region InterLATA Services in Michigan, *Memorandum Opinion and Order*, CC Docket No. 97-137, FCC 97-298 at paras. 342, 132 (rel. Aug. 19, 1997) (*Michigan 271 Order*)).

[64] GTE Direct Case at 3.

[65] *Id.*

[66] *Id.* at 5.

[67] *Id.*

[68] *Id.* at 8-13.

modification alters the task or function previously performed, and why the alteration is necessary for the provision of number portability.[69]

21. GTE's Direct Case addresses six new OSS systems or interfaces that, according to GTE, are solely for number portability functions.[70] GTE's Direct Case shows adaptations to 32 of 350 systems and applications that GTE contends were made to implement number portability.[71] GTE claims that these new systems and modifications were included because they represent only incremental costs that would meet the Commission's two-part test.[72] GTE explains that it took the following steps to ensure compliance with the permissible recovery of OSS costs: (1) it included modifications only if an end user could not port a telephone number without the modification and if an end user whose wire center is not number portability capable could not benefit from the modification; (2) it refrained from submitting any expenses for changes to system enhancements that provided other revenue opportunities for GTE or supported any other product or service; and (3) it managed the system developments and enhancements related to number portability as a separate project with separate financial tracking and reporting of costs.[73]

22. GTE asserts that to retain quality of telecommunications service while providing number portability, GTE systems that accept, process, rate, and format billing information for ported telephone numbers required modification so that bills to end users and CLECs accurately reflect the costs of the services for those ported numbers.[74] Finally, GTE maintains that many of its systems changes were made to implement the Number Portability Administration Center (NPAC) processing flows that were adopted in the *Second Report and Order*.[75]

23. In its Direct Case, Pacific states that its tariff proposes to recover only its direct costs for vendor development in connection with OSS.[76] Pacific states that the expenses for the software package included for recovery in its tariff was specified to be attributable solely

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[69] *Id.* at 13-28.

[70] *Id.* at 6.

[71] *Id.*

[72] *Id.*

[73] *Id.* at 7.

[74] *Id.* at 8.

[75] *Id.* at 8 (*citing Second Report and Order*, 12 FCC Rcd at 12,315, para. 55).

[76] Pacific Direct Case at 2.

to number portability by the single vendor that provided the package.[77] Pacific's Direct Case addresses the specific amount spent on number portability projects to date and the amount projected to be spent in 1999.[78] Pacific claims that the practice of the vendor that developed the enhancements to OSS packages used by Pacific is to limit each change package to a single type of common upgrade; for this reason, Pacific claims that it was not required to purchase unrelated developments as part of a package.[79]

24. Pacific states that it also spent additional amounts with a second vendor through mid-1998 on two separate OSS software packages that are a direct cost of providing number portability.[80] In its Direct Case, Pacific seeks to recover the costs of modifying the following systems: (1) Local Service Management System/Service Order Activator (LSMS/SOA); (2) Service Order Assignment and Control (SOAC); (3) SWITCH/Computer System for Mainframe Operations (SWITCH/COSMOS); MARCH; (5) NetPilot; (6) Loop Maintenance Operating System (LMOS); and (7) Mechanized Loop Testing (MLT).[81]

25. SWBT's Direct Case regarding OSS costs is identical to Pacific's Direct Case with the exception of the specific amounts paid to the software vendors and the costs of the different OSS modifications.[82]

C. Oppositions

26. Two parties filed oppositions to the Direct Cases of the incumbent LECs. Ad Hoc contends that each incumbent LEC, to varying degrees, seeks to recover OSS costs that the Commission has determined are not eligible for recovery through the number portability tariffs.[83] With regard to Ameritech, Ad Hoc contends that of the 20 systems for which Ameritech seeks recovery, 9 are ineligible costs of systems ancillary to the provision of number portability services.[84] Ad Hoc maintains that when ineligible costs are removed from

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[77] *Id.*

[78] *Id.*

[79] *Id.* at 3.

[80] *Id.*

[81] *Id.* at 3, Attachment B. "SWITCH" and "MARCH" are trademarks for software manufactured by Bellcore.

[82] SWBT Direct Case at 2-3, Attachment B.

[83] Ad Hoc Opposition at 8.

[84] *Id.* at 9.

Ameritech's cost study, its costs are reduced by 27%.[85] Ad Hoc states that the costs of the following OSS systems are ineligible for recovery under the Commission's standard: Predictor; Enhanced Mechanized Assignment and Control System (EMAC); Loop Maintenance Operations System (LMOS); Mechanized Loop Testing (MLT); Network Services and Database (NSDB); Work Force Administration/Control/Dispatch systems (WFA/C/DI) and Customer Access Record Exchange System (CARE); Database Administrative System II (DBAS II); and Line Information Database (LIDB).[86] Ad Hoc also argues that costs claimed for Ameritech's Emergency 911 Database should be removed from Ameritech's proposed costs and rates because the system is not used for the provision of number portability services.[87]

27. AT&T opposes Ameritech's argument that it should be able to recover all of the OSS costs it claims because the Commission has identified pre-ordering, ordering, billing and maintenance as OSS capabilities that are subject to unbundling under section 251(c).[88] AT&T notes that a requirement that certain types of OSS systems be made available to competitors does not imply that those systems are used "for the provision of number portability."[89]

28. Ad Hoc maintains that an examination of the costs associated with GTE's OSS modifications reveals that many of the systems changed have only tangential connections to the provision of number portability services and fail in other respects to constitute eligible OSS costs as defined by the Commission.[90] Ad Hoc maintains that GTE's proposed OSS investments and expenses should be reduced by 42% and 50%, respectively.[91] With regard to billing-related OSS systems, Ad Hoc argues that GTE's descriptions of system functions and explanations of the modifications to its eight billing-related systems contain no evidence that the costs GTE claims for these modifications qualify under the Commission's definition of costs incurred for the provision of number portability.[92] Ad Hoc argues that, similarly, GTE includes costs for modifying ordering systems, which appear to be involved in completing

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[85] *Id.* at 9 and Attachment 1.

[86] *Id.* at 9-13.

[87] *Id.* at 14.

[88] AT&T Opposition at 8 (*citing* 47 U.S.C. § 251(c)).

[89] *Id.* at 8.

[90] Ad Hoc Opposition at 16.

[91] *Id.*

[92] *Id.* at 21.

orders for local number portability but also provide other non-number portability services.[93] Ad Hoc alleges that GTE has not provided sufficient detail to distinguish the modifications needed to adapt other types of order processing systems to the number portability environment.[94] Finally, Ad Hoc argues that GTE's proposal to recover costs for modifying its Enhanced 911 emergency services should be rejected because this system is not used for the provision of local number portability services.[95]

29. AT&T asserts that, despite the unequivocal rulings regarding OSS costs in the *Cost Classification Order*, GTE nonetheless maintains that the order authorizes the inclusion in number portability tariffs of the costs of OSS pre-ordering, ordering, billing, and other functions not used for porting telephone numbers from one carrier to another.[96] AT&T notes that both GTE and Ameritech attempt to justify their OSS modifications as necessary to avoid degradation to service quality as a result of the implementation of number portability.[97] AT&T notes that the *Cost Classification Order* expressly rejected this claim.[98] AT&T argues that GTE's identification of OSS costs is not consistent with the two-part test established in the *Cost Classification Order*.[99] Attachment 3 to GTE's Direct Case, according to AT&T, demonstrates that GTE seeks to recover a wide range of costs for modifications to OSS functions that do not relate to performing queries or porting numbers between carriers.[100]

30. Ad Hoc contends that Pacific has improperly claimed costs for two ineligible OSS systems, the Loop Maintenance Operating System (LMOS) and Mechanized Loop Test (MLT) systems.[101] Ad Hoc notes that Pacific's own description of MLT as "an application [which] performs automated testing on all voice grade facilities of subscriber loop" confirms that MLT is a repair and maintenance system and is not allowed under the Commission's local number portability costing standard.[102] Ad Hoc further contends that the LMOS system

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[93] *Id.* at 22.

[94] *Id.*

[95] *Id.*

[96] AT&T Opposition at 6.

[97] *Id.* at 7.

[98] *Id.* at 7 (*citing Cost Classification Order*, 13 FCC Rcd at 24,501-02, para. 13).

[99] *Id.* at 9.

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

[101] Ad Hoc Opposition at 14.

[102] *Id.*

costs must be excluded because LMOS also is a repair and maintenance system.[103] Ad Hoc maintains that the removal of the costs associated with these systems would effect a 27% reduction in Pacific's claimed OSS investment costs and a 32% reduction in Pacific's claimed OSS expenses.[104]

31. With regard to SWBT's claimed OSS costs, Ad Hoc contends that the costs associated with MLT and LMOS should be removed from SWBT's proposed costs for the same reasons discussed regarding Pacific's OSS costs.[105] Ad Hoc maintains that the removal of these costs would result in a 14% reduction in SWBT's OSS investment costs and a 31% reduction in SWBT's OSS expenses.[106]

32. AT&T also opposes SWBT's suggestion that SWBT should be permitted to recover the OSS costs in its tariff because its software vendors identified the costs as "for the provision of number portability."[107] AT&T argues that vendors have no particular knowledge of the Commission's cost recovery requirements, no duty of candor or truthfulness to the Commission, and are motivated to certify that expenses are number portability related because of their business relationship with their incumbent LEC customers.[108]

33. AT&T also argues that Pacific and SWBT seek to recover OSS costs that do not comply with the Commission's orders.[109] AT&T claims that SWBT's own explanations, at Attachment B, make plain that the OSS costs SWBT claims are attributable to modifying systems to operate in a number portability environment, not for the provision of number portability.[110] AT&T attaches Exhibit 3 to its opposition on which it has identified Ameritech's allegedly improper OSS modifications and has explained why each is impermissible.[111]

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[103] Ad Hoc Opposition at 14-15.

[104] *Id.* at 15, Attachment 2.

[105] *Id.* at 15.

[106] *Id.* at 15, Attachment 3.

[107] AT&T Opposition at 8.

[108] *Id.*

[109] *Id.* at 11.

[110] *Id.*

[111] *Id.*

D. Rebuttals

34. Ameritech argues that AT&T's position regarding its OSS costs fails to recognize that number portability could not be provided unless the OSS-related costs were incurred.[112] Ameritech also argues that AT&T's position ignores the fact that the Commission has held that access to OSS functions is a condition of BOC entry into the long distance market and is an integral part of the provision of number portability.[113] Ameritech also states that the current industry projections of expected number portability query volumes are so high as to rule out the use of manual support processes to provide number portability and the OSS-related modifications are required to enable Ameritech to meet the NANC requirements for the provisioning of long-term local number portability.[114] Ameritech also notes that the OSS-related number portability costs included in its filing are essentially identical to those included in Bell Atlantic's number portability tariff, which was permitted to go into effect without investigation.[115]

35. In response to AT&T's opposition, GTE states that it properly provided sufficient detail in its Direct Case to respond to the Bureau's specific inquiries and included descriptions of the OSS modifications and explanations as to why the systems are essential to the provision of number portability.[116] GTE argues that the information provided in GTE Attachment 3 complies with the Commission's definition of porting telephone numbers from one carrier to another.[117]

36. GTE also states that the OSS-related functions for which it seeks recovery include those functions that are required by the Commission in the NANC provision flows.[118] GTE maintains that among these functions, it added access to NPAC and LSMS information to minimize the need for NPAC audits and modified its repair systems to ensure that number portability services can be restored.[119] GTE also argues that "providing" number portability

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[112] *Id.* at 16.

[113] *Id.*

[114] *Id.* at 17.

[115] *Id.*

[116] GTE Rebuttal at 4.

[117] *Id.*

[118] *Id.* at 5.

[119] *Id.*

goes beyond the Commission's narrowest definition of the term providing and includes many other functions, such as billing, repair and maintenance, and monitoring.[120]

37. GTE maintains that, contrary to AT&T's assertion that GTE's analysis of OSS costs does not accurately reflect the Commission's two-part test, GTE took steps to determine whether to include or exclude costs in its tariff.[121] GTE further states that AT&T incorrectly rejects the costs for modifications to several systems, including a system that allows competitive LECs to transmit porting orders to GTE, as well as one that provides information for GTE-initiated porting orders.[122]

38. GTE argues that its cost recovery proposal does not include costs of system changes that are an incidental consequence of number portability.[123] GTE also refuted Ad Hoc's claim that GTE has included costs for systems that provide other, non-number portability services; GTE provides a specific rebuttal for each service discussed in Ad Hoc's opposition.[124]

39. In response to AT&T's assertion that SBC's OSS software costs are based solely on the biased representations of software vendors, SBC argues that it developed and provided the vendors with specifications of the work to be performed as a result of and in order to provide number portability.[125] SWBT maintains that it has correctly identified incremental costs and has demonstrated that its incremental costs meet the Commission's two-prong test.[126] SBC contends that neither AT&T nor the Ad Hoc Committee offer persuasive arguments as to why SWBT and Pacific's OSS costs should be rejected. SBC states that it has not admitted that certain modifications are attributable to conversions to 10-digit telephone numbers.[127] SBC states that the modifications to its MLT, SWITCH/COSMOS, MARCH, and LMOS systems were necessary to support provisioning and porting functions for number

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[120] *Id.* at 6.

[121] *Id.* at 6-7.

[122] *Id.* at 7.

[123] *Id.*

[124] *Id.* at 8-12.

[125] SBC Rebuttal at 2.

[126] *Id.* at 4.

[127] *Id.* at 5.

portability and, are recoverable.[128] SBC states, however, that none of the applications that were modified are required to support queries.[129]

E. Discussion

40. Our review of the record demonstrates that, in their initial tariff filings, the incumbent LECs either misapplied the Commission's cost recovery standards or disregarded those standards altogether with respect to numerous OSS modifications. The misapplication or disregard of the Commission's standards in the initial filings would require certain disallowances to the OSS costs claimed by the LECs.

41. OSS systems consist of operational and administrative databases that store information regarding the location, status, and condition of physical equipment, as well as the operational processes that are designed to produce system reliability and service quality.[130] OSS systems also perform internal administrative functions, such as bookkeeping, accounting, and inventory. The data in OSS systems may be used by a LEC for marketing and planning purposes, as well as for customer service and care.[131] OSS administrative systems for maintenance and repair, billing, inventory control, surveillance and customer care appear to operate independently of the network functions related to the provision of voice and data services. These systems do not provide the telephone, voice, and data transmission services in the same way that switches, lines, and physical equipment function to provide service.

42. We recognize that to provide current network functions in combination with number portability functionalities, the incumbent LECs were required to make substantial modifications to their OSS to make existing network architecture compatible with the new number portability components. We also recognize that the existing OSS for billing, maintenance, and repair required modification to allow the incumbent LECs to accept the new number format, or location routing number (LRN), used by ported numbers. We agree with parties opposing the incumbent LECs' Direct Cases, however, that the incumbent LECs have failed to demonstrate that many of the modifications to their OSS systems meet the second prong of the Commission's two-prong test; specifically, the incumbent LECs have failed to show that the OSS changes were made "for the provision of number portability."[132] Stated alternatively, although the incumbent LECs have sufficiently demonstrated that the implementation of number portability has prompted changes to many OSS systems, some costs they claim appear to have been made to modify OSS functions that are incidental to the

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[128] *Id.* at 5-7.

[129] *Id.*

[130] *See* Newton's Telecom Dictionary, 15th Ed., 573 (1999).

[131] *Id.*

[132] *See* Ad Hoc Opposition at 7-8; AT&T Opposition at 9.

provision of number portability service. Based on the standard set out in the *Third Report and Order* and the *Cost Classification Order*, these costs constitute general network upgrades, which the LECs are assumed to recover through the ordinary price cap and rate of return mechanisms.[133]

43. Before turning to each incumbent LEC's OSS claims, we clarify two points made by Ameritech in its Direct Case regarding OSS costs eligible for recovery under the *Third Report and Order* and the *Cost Classification Order*. First, we clarify that, consistent with the *Third Report and Order*, the *Cost Classification Order* reaffirmed that eligible number portability costs are costs "incurred specifically in the provision of number portability service, such as for querying of calls and the porting of telephone numbers from one carrier to another." The *Cost Classification Order* does not exclude all costs for modifications to OSS, but instead excludes those costs incurred as "an incidental consequence of number portability."[134]

44. Second, we also clarify that number portability cost recovery issues were not considered in the context of Ameritech's application to provide interLATA services in Michigan.[135] Accordingly, statements the Commission made in that context do not establish a standard for the recovery of OSS costs and should not be relied on by the incumbent LECs as guidance in determining the eligible portion of OSS costs to be allocated to number portability tariffs.[136]

45. Turning to Ameritech's OSS recovery claims, we note at the outset that Ameritech has made substantial reductions in those claims since filing its Direct Case.[137] We find, however, that still further costs appear to be unrelated to the provision of number portability as defined in the *Third Report and Order* and the *Cost Classification Order*.

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[133] *See supra* at paras. 12, 13. The descriptions of the OSS modifications in the incumbent LECs filings establish that many of these systems were in use prior to the date on which the Commission released the *First Report and Order* directing the LECs to provide telephone number portability, *see, e.g.*, GTE Direct Case at 10-13, thus further supporting the assumption that the LECs are recovering the costs of any modifications to these systems through the existing price caps and rate of return mechanisms. Those cost recovery mechanisms are separate and distinct from the cost recovery mechanism put in place for the recovery of the costs of implementing long-term number portability.

[134] *Cost Classification Order*, 13 FCC Rcd at 24,501, para. 12 (*citing Third Report and Order*, 13 FCC Rcd at 11,740, para. 72). In its Direct Case, Ameritech contends that general language in paragraphs 7 through 14 of the *Cost Classification Order*, taken out of context, could be construed as denying recovery of all OSS modifications. Ameritech Direct Case at 23 (referencing its Petition for Clarification of the *Cost Classification Order)*.

[135] Ameritech Direct Case at 24.

[136] *Third Report and Order*, 13 FCC Rcd at 11,740, para. 75.

[137] *See supra* at para. 19, n.60.

Specifically, the costs incurred for modifications to the LMOS/MLT and NSDB systems appear unrelated to the provisioning of number portability as defined in the *Third Report and Order* and the *Cost Classification Order*.[138] Ameritech's description of these systems demonstrates that the systems provide repair and maintenance services for the network.[139] Costs incurred for general maintenance and repair are considered costs of general network upgrades, which Ameritech can recover through its rates for existing regulated services. We agree with Ad Hoc that the costs of modifications to these systems should not be allowed because the systems in question do not appear to be involved in the actual porting or the querying of numbers. Although Ameritech states that these services are required for porting between carriers, the descriptions it provides identify the systems as used to provide trouble reports for repair functions and information for billing services.[140]

46. In its tariff filing and Direct Case, GTE sought recovery of costs incurred in modifying over 80 OSS systems. Based on its original tariff filing and the record, we conclude that a substantial number of GTE's OSS modifications did not relate to the provision of number portability service as defined in the *Third Report and Order* and the *Cost Classification Order*. Specifically, because the following OSS are unrelated to the actual provision of number portability, we determine that to allow cost recovery for modifications to these systems would be inconsistent with the cost recovery mechanism set out in the *Third Report and Order* and the *Cost Classification Order*: Computer Telephony Integration (CTI)/ Interactive Voice Response Unit (IVRU); Digital Services Test System (DSTS); NetMinder; SITES;[141] Telecommunications Data Collection System (TDCS); TONICS Alarm Correlation Engine (ACE); TONICS Customer Access Facilities (TCAF); Traffic Irregularity System (TIAS); Bill Inquiry Voucher and Treatment (BVT); Customer Billing Services System (CBSS); GTE Security Administration System (GSAS) and Security Toll Online Message Processing System (STOMPS); Network Profile System (NPS); Toll Error Message Processing On-Line (TEMPO); and Usage Messaging System (UMS).[142] In addition, we determine that the costs of modifications to the following GTE OSS would violate the cost recovery principles established in this proceeding because the description provided by GTE stated that the systems provide general maintenance and repair services unrelated to the provision of number portability: CTI/IVRU; DSTS; and TCAF.[143] We also find that the following GTE OSS costs are not appropriate for recovery as number portability costs because the systems that were modified provide general monitoring and management functions for

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[138] Ameritech Direct Case, Appendix C at 5-7, 9-11. *See Third Report and Order*, 13 FCC Rcd at 11,740, para. 72; *Cost Classification Order*, 13 FCC Rcd at 24,499-24,500, para. 9.

[139] Ameritech Direct Case, Appendix C at 5-7, 9-11.

[140] *Id.* at Appendix C at 5, 6.

[141] "SITES" is not an acronym, but is the full name for the system.

[142] GTE Direct Case at 19-27.

[143] *Id.* at 11, 19-20, 23-24.

GTE's network, again unrelated to the provision of number portability: NetMinder; NOC/TAS; SITES; TCDS; TONICS ACE; and TIAS.[144]

47. GTE also included in its original filing claims for the recovery of the costs of modifications to several OSS billing systems that we similarly find were not appropriate for recovery as number portability costs: BVT, CBSS, GSAS/STOMPS; NPS; OCSS; TEMPO; and UMS.[145] These costs are ineligible for number portability cost recovery for two reasons. First, in some instances, GTE's explanation established that the function of the OSS that was modified does not relate to the porting or querying of telephone numbers, or the provision of number portability.[146] Indeed, GTE's explanations describe these OSS systems in terms of how they provide maintenance and repair, and billing services. As stated in the *Cost Classification Order*, the costs of modifying OSS systems related to repair and maintenance are general network upgrades that are recovered through the LECs' price cap and rate-of-return recovery mechanisms.[147] Second, in other instances, GTE did not explain or identify the specific modification made to its system (*e.g.*, software purchase, etc.). Thus, GTE provided no evidence upon which the Commission can determine that these costs are eligible number portability costs and are not incidental to the provision of number portability.

48. GTE also argued in its Direct Case that the costs of modifying some OSS systems are eligible number portability costs because the modifications were necessary to prevent service quality degradation.[148] GTE argued that because number portability must be implemented in a manner that preserves the quality of service, the *First Report and Order* authorizes, or even requires, substantial OSS modifications on the basis that the modifications prevent service quality degradation. We reject this argument. As stated in the *Cost Classification Order*, the Commission's statement in the *First Report and Order* was made in the context of our selection of a database query method. That is, degradation of the quality of service was one of several factors considered by the industry, the North American Numbering Council (NANC), and the Commission in selecting an LRN-based method of number portability over a Query-on-Demand method.[149] As the Bureau explained in the *Cost Classification Order*, the Commission's statement that the implementation of any long-term method should not *unreasonably* degrade existing service quality or network reliability cannot be interpreted to support the position that all costs incidental to achieving that performance level are costs incurred "for the provision of portability." We agree with the Bureau that such

[144] *Id.* at 11-12, 20-21, 23-24.

[145] *Id.* at 12-13; 20-27.

[146] *Id.* at 10-13.

[147] *Cost Classification Order*, 13 FCC Rcd at 24,500-01, paras. 11-12.

[148] GTE Direct Case at 7-8.

[149] *Cost Classification Order*, 13 FCC Rcd at 24,501, para. 13 (*citing First Report and Order* at 8378, para. 48).

a reading of our statement in the *First Report and Order* would render meaningless the language and the spirit of the *Third Report and Order* regarding eligible LNP costs.[150]

49. Similar to GTE, Pacific and SWBT included, in their original tariff filings, costs for modifications to OSS systems that provide repair and maintenance functions. Based on these filings, we determine that the costs Pacific and SWBT claimed for modifications to the LMOS and MLT systems do not constitute eligible number portability costs because these systems function as repair and maintenance systems.[151] The descriptions provided by Pacific and SWBT confirmed that these systems are not involved in the actual porting and querying of numbers or the actual provision of number portability service.[152]

50. On the basis of the arguments raised in opposition and in light of *ex parte* communications on the record with Commission staff during the course of the investigation, GTE, Pacific and SWBT have now revised their tariff filings to remove all of the costs associated with modifications to the OSS systems that we find to be disallowable in paragraphs 45 through 48 above. We find that the OSS costs sought to be recovered by GTE, Pacific and SWBT in their revised tariff filings would not have been incurred but for our requirement to implement number portability and those costs are directly related to the provisioning of number portability. We therefore conclude that these costs comport with the cost recovery principles set out in the *Third Report and Order* and the *Cost Classification Order* and should be permitted to be recovered through the federal end-user and query service charges.

51. We note that Ad Hoc and AT&T suggest that we should disallow many OSS-related costs claimed in Ameritech, GTE, Pacific and SWBT's original filings beyond those we disallow above.[153] We do not agree that all of the OSS modifications identified by Ad Hoc and AT&T in their oppositions fail to meet the two-part test we established for eligible LNP costs. In our view, those modifications identified by Ad Hoc and AT&T beyond what we disallow above are directly related to the provision of number portability; we allow the LECs to recover the costs of modifying these OSS systems that provide functions essential to porting, querying, and provisioning number portability.

52. We have determined that the incumbent LECs may recover the costs of modifying E911 systems, based on public interest considerations. Although we conclude that the costs of E911 modifications are incidental to the provision of number portability,[154] we

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[150] *Id.* at 24,501 (para. 13, *citing First Report and Order* at 8378, para. 48).

[151] Pacific Direct Case at Attachment B; SWBT Direct Case at Attachment B.

[152] *Id.*

[153] *See* Ad Hoc Opposition at 8-22; AT&T Opposition at 9-11.

[154] *See Cost Classification Order*, 13 FCC Rcd at 24,499, para. 8.

make an express exception to our cost recovery standard to allow recovery of certain types of E911 modifications because of the public safety concerns involved with the provision of E911 service.[155] We are concerned that without these modifications, the carrier that wins a customer may not be able to maintain a continuous connection between the new customer and emergency personnel during the porting process. We find that access to the 911 database is a necessary element of porting and provisioning because it permits the carrier that wins the customer the opportunity to ensure that the customer maintains a vital connection to police, fire, and other emergency services. We allow the LECs, therefore, to recover the costs of E911 modifications that permit CLECs to have access to the 911 database for the purpose of updating customer information, and receiving line and number information.[156] This allowance does not include, however, the costs incurred by an incumbent LEC for modifications to E911 or 911 systems that provide 911 service as part of the local service or plain old telephone service (POTS) the LEC provides to its customers. Modifications to OSS systems that relate to the LECs' provision of E911 or 911 services to their own customers do not fall within the definition of eligible number portability costs and may not be recovered through the end-user and query service charges.

53. The specific disallowances discussed in this section regarding Ameritech's number portability tariff are based on the data provided by Ameritech in its Direct Case, and on arguments and issues raised during the course of the investigation. Thus, in prescribing the end-user and query service charges for Ameritech, we have adjusted these charges as stated in Ameritech's tariff filings to reflect the disallowances made to the amounts claimed by Ameritech for the recovery of OSS cost modifications, for the reasons discussed above. The calculation and prescription of the new rates discussed in Section XI of this order reflect the amounts disallowed. As discussed above, we find that the OSS costs claimed in GTE, Pacific, and SWBT's revised tariff filings are reasonable and consistent with the cost recovery principles enunciated in the *Third Report and Order* and the *Cost Classification Order*. We further find that the OSS costs that we concluded were not eligible number portability costs, as discussed in paragraphs 45 through 48 above, are not just and reasonable and are inconsistent with the cost recovery principles enunciated in the *Third Report and Order* and the *Cost Classification Order*.

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[155] *First Report and Order*, 11 FCC Rcd at 8378-79, paras. 49-50. We note that the Commission has required that the long-term portability method support emergency services, such as 911 and E911, in keeping with the requirements of the Communications Assistance for Law Enforcement Act (CALEA). *See* Communications Assistance for Law Enforcement Act, Pub L. No. 103-414, 108 Stat. 4279 (1994), 47 U.S.C. §§ 1001 *et seq.*

[156] *See, e.g.*, Ameritech Direct Case at 14; GTE Rebuttal at 11.

IV. SIGNALLING AND SWITCHING

A. Background

54. In the *Third Report and Order*, the Commission limited the costs eligible for recovery through the new federal number portability cost recovery mechanism to "costs carriers incur specifically in the provision of number portability services, such as for the querying of calls and the porting of telephone numbers from one carrier to another."[157] In the *Cost Classification Order,* the Bureau concluded that costs not directly related to number portability have become ordinary costs of doing business in this new environment, and, thus, represent general network upgrades.[158] The Bureau held that LECs must distinguish the costs of providing long-term number portability itself, recoverable through the federal charges provided in the *Third Report and Order*, from general network upgrade costs recoverable through the price caps and rate-of-return mechanisms.[159] In addition, the Bureau noted that allowing embedded investments to be eligible number portability costs would amount to recovery of costs the LECs already recover through standard recovery mechanisms.[160] The Bureau also specified that only new costs may be recovered, because costs incurred prior to number portability implementation are assumed to have been subject to recovery through standard mechanisms.[161] The Bureau noted that, in the past, the use of computer cost models has generated significant controversy.[162] The Bureau required LECs to disclose computer-cost models on the record, if they use such models to justify rates.[163] The burden, therefore, rests on the incumbent LEC to explain fully all of the inputs, algorithms and assumptions of its computer-cost model.[164]

55. In the *Designation Order*, the Bureau noted that Ameritech's tariff filing showed that it used a "LNP Cost Tracking System" to track actual and planned expenditures for most components of their long-term number portability costs, but used the CCSCIS cost model to estimate SS7 Signalling costs.[165] Pacific and SWBT's tariff filings showed that they

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[157] *Third Report and Order*, 13 FCC Rcd at 11,740, para 72.

[158] *Cost Classification Order*, 13 FCC Rcd at 24,503, para. 18.

[159] *Id.*

[160] *Id.*

[161] *Id.*

[162] *Id.* at 24,504-05, para. 56.

[163] *Id.*

[164] *Id.*

[165] Ameritech Transmittal No. 1186, D&J at 13 (Jan. 15, 1999).

used the SCIS (Switching Cost Information System) and CCSCIS (Common Channel Switching Cost Information System) models for query investments, rather than actual and planned expenditures, to identify long-term number portability costs related to both signalling and switching.[166] The Bureau designated for investigation whether these carriers' use of SCIS and CCSCIS models to estimate their signalling costs of number portability resulted in the inclusion of some embedded costs and, therefore, produced an inaccurate estimate of their actual number portability costs.[167] Where Ameritech, Pacific, and SWBT intended to continue to rely on the information produced by the cost models in support of their tariffs, the Bureau further directed them to explain how the use of cost models would produce more accurate estimates of the incremental costs generated by number portability than would be produced by an analysis of actual and planned expenditures.[168] These LECs were required to demonstrate that the use of the models did not produce double recovery of embedded costs, that is, costs incurred prior to number portability implementation which are already being recovered through other cost recovery mechanisms.[169] They also were required to compare the model's calculation of average costs of number portability-type queries with the model's incremental costs of these queries.[170]

B. Direct Cases

56. In its Direct Case, Ameritech asserts that its use of what it describes as a long-run incremental cost methodology to recover forward-looking costs does not result in the inclusion of embedded costs nor produce an inaccurate estimate of its actual number portability costs.[171] Ameritech further asserts that no overlap of costs assigned to each service exists, because the models only assign forward-looking incremental costs based on each service's utilization of SS7 cost drivers.[172] Ameritech asserts that, as required, it also performed a cost study of its actual expenditures and explains the basis of each calculation of actual cost.[173] These actual expenditures were developed using a manual cost study.[174]

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[166] Pacific Transmittal No. 2029, D&J, Appendix E, "Service Cost Development"; SWBT Transmittal No. 2745, D&J, Appendix E, "Service Cost Development."

[167] *Designation Order*, 14 FCC Rcd at 3373-74, paras. 17-21.

[168] *Id.*

[169] *Id. See also Cost Classification Order*, 13 FCC Rcd at 24,503, para. 18.

[170] *Designation Order*, 14 FCC Rcd at 3373-74, paras. 17-21.

[171] Ameritech Direct Case at 2.

[172] *Id.* at 12.

[173] *Id.* at 5.

[174] *Id.*

Ameritech asserts that its manual cost study validates the results produced by the SCIS and CCSCIS cost models.[175] Ameritech notes that actual expenditures equal only about 1/5 of the actual forward-looking SS7-related investment that number portability will require over the long-run.[176] Ameritech believes that this study provides graphic evidence of why a short-run, embedded cost methodology is inadequate.[177]

57. Pacific and SWBT filed virtually identical Direct Case narratives. Pacific and SWBT state that they have provided their past, current and planned actual expenditures related to costs developed from the CCSCIS and SCIS models.[178] Pacific and SWBT assert, however, that the SCIS and CCSCIS models are the appropriate tools to identify costs.[179] Pacific and SWBT assert that these models do not analyze embedded or historical costs.[180] Pacific and SWBT also contend that because these models identify the unit costs of each fundamental unit by octet,[181] each service using octets for that piece of equipment will recognize the same cost, and double recovery cannot occur.[182] Pacific and SWBT assert that the Commission's use of the SCIS model in the Open Network Architecture (ONA) proceeding proves that its "inherent methodology [is] fundamentally sound," and thus should be allowed here.[183] Pacific and SWBT maintain that a significant portion of the costs caused by number portability implementation cannot be tracked immediately, including the cost of using SS7 network capacity to process number portability queries.[184] Pacific and SWBT state that because number portability use of SS7 network capacity is still sufficiently below its total capacity, no actual construction of additional STPs has yet been triggered and no cost tracking takes place. The contend, however, that it would be inadequate to measure number portability costs on this basis because the exhaust date of that equipment component is significantly advanced, resulting in an earlier-than-anticipated capital expenditure.[185] Pacific and SWBT contend that

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175 *Id.*

176 *Id.* at 20.

177 *Id.*

178 Pacific Direct Case at 3; SWBT Direct Case at 3.

179 Pacific Direct Case at 4; SWBT Direct Case at 5.

180 Pacific Direct Case at 4-5; SWBT Direct Case at 5.

181 An octet is an eight-bit byte. Newton's Telecom Dictionary, 15th Ed. (1999) at 559.

182 Pacific Direct Case at 5; SWBT Direct Case at 5.

183 Pacific and SWBT Direct Cases, Attachment E at 7.

184 Pacific Direct Case at 5; SWBT Direct Case at 5.

185 Pacific Direct Case at 5; SWBT Direct Case at 6.

this advancement effect increases LECs' costs and properly should be recognized in determining number portability rates.[186]

58. Pacific and SWBT also state that their actual expenses cannot be appropriately compared to the CCSCIS total outputs for the following reasons. First, actual expenditures do not reflect the advancement costs to bring forward the next relief job of the equipment due to the increased demand on the network caused by number portability.[187] Second, Pacific and SWBT assert that the actual expenditures do not reflect the advancement costs associated with secondary investments, because these investments are developed through the application of supplemental factors.[188] Third, Pacific and SWBT assert that these investments do not reflect the number portability portion of the shared "waiting to serve"[189] capacity in the SS7 network, and this capacity usage is produced in the "average" view of the models.[190]

59. Pacific and SWBT assert that they have incurred costs of generic software upgrades on virtually every platform deployed in their networks as a result of number portability requirements.[191] Pacific and SWBT contend that they have properly allocated costs between generic software used for non-number portability purposes, and generic software used solely for number portability purposes.[192]

C. Oppositions

60. In opposition, Ad Hoc asserts that Ameritech, Pacific and SWBT have all failed to meet their respective burden of proof regarding the lawfulness of using cost models to predict signalling and switching costs.[193] Additionally, Ad Hoc asserts that even though Ameritech was required to provide its actual costs in addition to its modeled costs, actual costs are not presented in Ameritech's Direct Case.[194] Ad Hoc urges the Commission to disallow all switching and signalling costs submitted by Ameritech for inclusion in its local

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[186] Pacific Direct Case at 5-6; SWBT Direct Case at 6.

[187] Pacific Direct Case at 3-4; SWBT Direct Case at 4.

[188] Pacific Direct Case at 4; SWBT Direct Case at 4.

[189] "Waiting to serve" generally refers to the time required for a system to respond to a query.

[190] *Id.*

[191] Pacific Direct Case at 20; SWBT Direct Case at 19.

[192] *Id.*

[193] Ad Hoc Opposition at 26-27.

[194] *Id.* at 30-31.

number portability rate elements.[195] Alternatively, Ad Hoc contends that the Commission must require Ameritech to support its tariff filing with verifiable actual cost estimates that include explanations of all the applicable variables, including information on demand assumptions, such as percentage of calls dipped, and percentage of numbers assumed ported to competitors.[196]

61. AT&T argues that Ameritech's Direct Case consists of improper collateral attacks on the Commission's number portability cost recovery standards that are simply irrelevant to its efforts to carry its burden of proof under 47 U.S.C. § 204(a)(1).[197] AT&T contends that because Ameritech's tariff has failed to comply with the Commission's cost recovery requirements, the Commission should prescribe number portability surcharges and query rates, and order that the unlawful charges imposed to date be refunded with interest.[198] AT&T also asserts that Ameritech's number portability tariff would permit double recovery.[199] According to AT&T, Schedule 3 of Appendix B shows that by assigning existing network infrastructure to number portability, Ameritech was able to claim a high figure in number-portability-related investments, while Schedule 4 of Appendix B shows that Ameritech's actual incremental investments necessitated by number portability totaled approximately one-fifth of the former figure.[200] AT&T maintains that Ameritech's own calculations show that many of its claimed costs do not vary with the level of octets processed, and these fixed/joint investments made prior to number portability implementation are embedded costs which, if recovered, would lead to double recovery.[201] Finally, AT&T asserts that Ameritech disregards the Commission's rules regarding the five-year recovery period for number portability surcharges, stating that it should be allowed to recover number portability costs incurred after the five-year recovery period.[202]

62. Ad Hoc asserts that Pacific and SWBT's assertion that the SCIS and CCSCIS models do not analyze embedded or historical costs is based on their failure to distinguish between normal modernizing expenditures and specific network upgrades required only for the

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[195] *Id.* at 27.

[196] *Id.* at 27.

[197] AT&T Opposition at 2.

[198] *Id.* at 2-3; *see also* Ad Hoc Opposition at 29.

[199] AT&T Opposition at 12.

[200] *Id.* at 14.

[201] *Id.* at 13.

[202] *Id.* at 15.

provision of local number portability.[203] Ad Hoc asserts that by their own admission, the capacity costing models used by Pacific and SWBT to develop the economic costs of number portability do not take into account when a cost is incurred.[204] Ad Hoc notes that the actual cost estimates provided by Pacific and SWBT are higher than the modeled costs, contrary to reasonable expectations, which raises considerable doubt as to the validity of the companies' cost models.[205] Ad Hoc also asserts that a capacity reduction in SS7 as facilities-based competition continues to increase would not be unreasonable, but it is impossible to see how and if the LECs included such a capacity assumption in the model.[206]

63. AT&T disputes Pacific and SWBT's claim that double recovery cannot occur because their models divide total investment by total demand to estimate unit costs.[207] AT&T asserts that even under a price cap scenario, Pacific and SWBT have already priced their services to recover fully the fixed and joint costs of SS7 equipment prior to the implementation of number portability, and Pacific and SWBT assert that they have incurred little or no new incremental STP costs.[208] AT&T asserts that Pacific and SWBT effectively admit to double recovery when they state that their investments and expenses will not increase in direct proportion to the number of octets required for number portability because no construction jobs have been triggered.[209]

64. AT&T asserts that SWBT has not provided adequate support for its claim of generic upgrade cost recovery, as required in the *Designation Order*.[210] AT&T asserts that SWBT's cost calculations also include the costs of hardware upgrades necessary to run the generic software upgrades it claims and to provide additional memory.[211] AT&T assets that such processor upgrades should not be included in cost recovery because, like general software upgrades, switch manufacturers typically require processor upgrades for a wide variety of reasons, and the processor upgrades benefit all users and services on the switch.[212]

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[203] Ad Hoc Opposition at 24.

[204] *Id.* at 25.

[205] *Id.* at 29.

[206] *Id.* at 30.

[207] AT&T Opposition at 20.

[208] *Id.*

[209] *Id.* at 19.

[210] *Id.* at 30.

[211] *Id.* at 32.

[212] *Id.* at 32.

D. Rebuttals

65. In reply, Ameritech reasserts its earlier position that no double recovery will result from its use of cost models, and that its manual cost study correctly identified actual incremental SS7 investment costs.[213] Ameritech continues to assert that a long-run cost methodology is appropriate for cost recovery.[214] Ameritech contends that it seeks recovery of all investment costs required to support number portability, not just the short-term investment made during an arbitrarily short period of time.[215]

66. Pacific and SWBT assert that they have correctly identified incremental number portability costs, and neither seeks to double recover costs.[216] Pacific and SWBT contend that the incremental cost of a given service is defined as the difference between a firm's total cost of providing specific amounts of a particular service and the corresponding total cost if the firm continues to provide the same amount of every other service but ceases provision of the given service.[217] Pacific and SWBT also state that the CCSCIS model takes into account SS7 capacity reductions, because it is periodically updated to reflect changes in the SS7 network equipment and utilization levels.[218]

E. Discussion

67. In its Direct Case, Ameritech includes both capital investments and expenses that it has not justified. That is, it has not met its burden of demonstrating, pursuant to the standards set forth in the *Third Report and Order*, *Cost Classification Order*, and *Designation Order*, that specific charges are reasonable and meet our test for cost recovery. We therefore disallow certain costs, as follows. Additionally, in their original filings, Pacific and SWBT include costs that did not meet our narrow two-part cost recovery test. However, in subsequent filings, Pacific and SWBT modified their tariffs and addressed our specific concerns, and we therefore allow them to recover these costs, as discussed below. Our conclusions are discussed below.

68. Before turning to the specific disallowances, however, as a threshold matter, we disagree with Ameritech's assertion that costs caused by number portability after the close of the five-year recovery period should be included in the special end-user charge because such

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[213] Ameritech Rebuttal at 3-6.

[214] *Id.* at 5.

[215] *Id.* at 14.

[216] Southwestern Bell and Pacific Bell Rebuttal at 2-7, 12-13.

[217] *Id.* at 3.

[218] *Id.* at 9.

costs would otherwise never be recovered.[219] The *Third Report and Order* narrowly defined costs eligible for recovery through the number portability federal mechanism as only those carrier-specific costs incurred specifically in the provision of number portability services.[220] Additionally, the Commission chose five years as the period for which number portability implementation costs may be recovered because such a recovery period would enable incumbent LECs to recover their portability costs in a timely fashion while producing reasonable charges for consumers and avoiding the imposition of such charges for an unduly long period.[221] The Commission determined that "any remaining costs," that is, costs arising after the five year period, would be recovered through "existing mechanisms available for recovery of general costs of providing service."[222] We agree with AT&T that this issue also was addressed in the *Cost Classification Order*, in which the Bureau stated that after the five-year cost recovery period, number portability will have become a normal network function and thus LECs will not be entitled to any further special recovery for continuing costs incurred in implementing number portability.[223]

69. Despite the fact that LECs have the ability to track actual expenditures in order to calculate their number portability rates, some LECs instead used the SCIS and CCSCIS cost models to estimate their costs. Although we do not question the fundamental soundness of those models for other purposes, we find that it was not reasonable to use them here. We conclude that the cost estimates produced by SCIS and CCSCIS do not comport with the special cost requirements we have adopted for this proceeding because they do not report only the incremental costs of providing number portability incurred during the cost recovery period. For example, the models assume that no favorable increase in capacity utilization is caused by the addition of number portability. Further, the models result in inflated estimates of the eligible costs of providing local number portability because they include disallowed costs, inflated capacity estimates and unreasonable investment assumptions.

70. We disagree with SWBT that the Commission's use of the SCIS model in the Open Network Architecture (ONA) proceeding proves that its "inherent methodology [is] fundamentally sound," and its use should be allowed here.[224] Although that model is suitable for other purposes, it simply does not measure the specific, limited costs that are permitted to form the basis for these number portability charges. The models do not accurately track only those new, incremental costs that would not have been incurred but for the provision of

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[219] Ameritech Direct Case at 17-18.

[220] *Cost Classification Order*, 13 FCC Rcd at 24,506-07, paras. 27-29.

[221] *Third Report and Order*, 13 FCC Rcd at 11,777, para. 144.

[222] *Id.*

[223] *Cost Classification Order*, 13 FCC Rcd at 24,502-03, para. 15.

[224] SWBT Direct Case, Attachment E at 7.

number portability, but rather include disallowed costs and do not accurately report only those incremental costs permitted to be recovered during the cost recovery period. Additionally, as noted above, LECs have the ability to track actual expenditures using methods other than the SCIS and CCSCIS models. We therefore disallow their use in this tariff investigation.

71. Ameritech used the SCIS and CCSCIS cost models to estimate its SS7 investment costs. Ameritech's estimate includes costs arising from usage of network components already in place before the implementation of number portability, as well as estimates of network enhancement costs predicted to be necessary after the five year recovery period. These estimates are inconsistent with the directive in the *Cost Classification Order* that only new, incremental costs incurred by the end of the cost recovery period may be included.[225] As stated in the *Cost Classification Order*, investments made prior to number portability implementation cannot be considered direct costs incurred to provide number portability, as defined in the *Third Report and Order*, and allowing recovery of such costs would amount to double recovery, because such costs are assumed to have been recovered through standard recovery mechanisms.[226] Only those new, incremental costs incurred specifically for the provision of number portability during the recovery period may be recovered.[227] Ameritech's only new SS7 investments required during the recovery period, as identified in its Direct Case, are those listed in Appendix B, Schedule 4, Line 27. In an *ex parte* letter, however, Ameritech identified certain other SS7 costs that had been included in Ameritech's cost study, but which had not been identified clearly as new costs.[228] We allow the full amount of costs for the new links and ports as shown in Appendix B, Schedule 4, Line 27 and the additional costs identified in the *ex parte* letter, but disallow all the remaining claimed SS7 costs.[229]

72. In their original filings, Pacific and SWBT use the SCIS and CCSCIS cost models to estimate their SS7 investments, which they list on Lines 5 through 7a of their revised versions of Chart 1, as filed on May 27, 1999. As with Ameritech, their estimates explicitly included costs attributed to usage of network components that were already in place

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[225] *Cost Classification Order*, 13 FCC Rcd at 24,503, para. 18.

[226] *Id.*

[227] *Id.*

[228] See *Ex Parte* Letter from James K. Smith, Ameritech, to Magalie Roman Salas, FCC (June 11, 1999). In the accompanying materials, Ameritech identifies SSP and STP processor upgrades made necessary by local number portability and explains how they allocated these costs between number portability and other services.

[229] Ameritech Direct Case at Appendix B, Schedules 1-4. We note that Ameritech states that it has recently begun an initiative to review its SS7 based number portability network and determine ways to improve the reliability of that network. *Ex parte* Letter to Jane Jackson, FCC, from Michael Suthers, Ameritech (June 18, 1999). Ameritech indicates that there is a strong likelihood that one result of the review will be the identification of additional SS7 facilities that will be added during the five year recovery period to support number portability and whose costs, according to Ameritech, are properly attributable to number portability. *Id.*

before the implementation of number portability, as well as estimated costs of network enhancements to be incurred after the five year cost recovery period. The only new SS7 investments incurred during the recovery period appeared to be those listed in Attachment C of Pacific and SWBT's Direct Cases. Thus, the expenditures claimed in Pacific and SWBT's respective Attachment C appeared to be allowable, but the companies' Direct Cases did not appear to support the remainder of the claimed SS7 investments.[230] Based on questions raised during the course of our investigation, Pacific and SWBT filed rates supported by actual and planned expenditures for new SS7 costs that will be incurred during the cost recovery period and that meet our two-part cost recovery test, rather than model-derived estimates. Because Pacific and SWBT addressed our concerns and met their legal burden by requesting cost recovery only for those new SS7 costs that meet the narrow cost recovery test defined in the *Third Report and Order* and *Cost Classification Order*, we allow the SS7 costs claimed in their revised tariffs to be recovered.

73. In their original tariffs, both Pacific and SWBT claimed investment costs for processor upgrades.[231] In the *Cost Classification Order*, the Bureau required carriers to distinguish between eligible number portability costs that are recoverable through the federal number portability charges and general upgrade costs, which should not be recovered through the number portability cost recovery mechanism.[232] In their original filings, Pacific and SWBT allocated the entire cost of these upgrades to number portability and did not supply additional information concerning this cost or its allocation to number portability.[233] We note that Commission investigators recently conducted a review of Pacific and SWBT's number portability costs in order to evaluate to what extent these companies' cost support for their tariff filings was consistent with the Bureau's guidelines.[234] Based on questions raised during the course of our investigation, plus subsequent reviews of their own tariffs along with other tariffs that had been filed for number portability cost recovery, Pacific and SWBT revised their tariffs to address concerns regarding these processor upgrades. Pacific and SWBT adequately explained this cost and allocated it between number portability services and non-number portability services based on capacity utilization, as required by the *Cost*

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[230] Pacific Direct Case, Attachment C; SWBT Direct Case, Attachment C.

[231] Pacific Direct Case at Chart 1, line 1; SWBT Direct Case at Chart 1, line 1.

[232] *Cost Classification Order*, 13 FCC Rcd at 24,513, para. 47.

[233] Pacific Direct Case, Attachment H; SWBT Direct Case, Attachment H.

[234] Southwestern Bell Telephone Company Long-Term Local Number Portability Tariff Investigation, Field Examination, *Report of Findings* at 3-4 (May 27, 1999), Federal Communications Commission, Common Carrier Bureau, Accounting Safeguards Division (*SWBT Report of Findings*); Pacific Bell Long-Term Local Number Portability Tariff Investigation, Field Examination, *Report of Findings* at 3-4 (May 19, 1999), Federal Communications Commission, Common Carrier Bureau, Accounting Safeguards Division (*Pacific Report of Findings*).

Classification Order.[235] Because Pacific and SWBT have addressed our concerns and requested cost recovery only for those new processor upgrade costs that meet the narrow cost recovery test defined in the *Third Report and Order* and *Cost Classification Order*, we allow their processor upgrade costs to be recovered.

V. LOADINGS

A. Background

74. In the *Cost Classification Order*, the Bureau found it reasonable to bar recovery of costs incurred by LECs prior to LNP implementation and concluded that permitting embedded investments to be eligible LNP costs would amount to double recovery of costs already subject to recovery through standard mechanisms.[236] Consistent with this decision, in the *Designation Order*, the Bureau directed the LECs to identify costs for all land, buildings, administration, and maintenance expenses that are claimed with regard to both costs derived from cost models and costs produced from an analysis of actual expenditures.[237] The LECs were required to identify costs that were derived either from model output or an allocation factor applied to actual costs on the basis that new investment has an impact on overall requirements.[238]

B. Direct Cases

75. Ameritech states that the requested information about land, buildings, and maintenance is contained in its Appendix E, and offers the following additional points: (1) No costs associated with land were included in its cost studies; (2) in two cases, building or floor space investments were based on tracked costs, and in all other cases, these investments were calculated as percentage loadings[239] associated with central office and call center investments; (3) maintenance expenses were calculated as a percentage of capital investment; and (4) administration expenses were identified specifically for number portability, and refer to expenses related to product management and network support.[240] After the building capital investments were identified, these capital investments were multiplied by individual annual cost factors for each Ameritech state and equipment type to identify the annual costs associated with depreciation, the cost of money, income taxes, maintenance and ad valorem

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[235] *Cost Classification Order*, 13 FCC Rcd at 24,507, paras. 28-29.

[236] *Id.* at 24,503, para. 18.

[237] *Designation Order*, 14 FCC Rcd at 3373-74, paras. 17-21.

[238] *Id.*

[239] Loadings generally refers to a factor based on an average relationship used to recover costs of items such as land, buildings and power that are assumed to be associated with investments.

[240] Ameritech Direct Case at 28.

taxes.[241] Ameritech states that administration expenses included in its cost recovery claims are direct costs from Ameritech's own number portability tracking system, not derived as a percentage of capital investments, and are associated with the Product Management, Network and Other Business Unit labor-related expenses associated with number portability.[242] Finally, Ameritech claims that annual maintenance expenses were derived by multiplying the appropriate number portability capital investments by maintenance annual cost factors for each Ameritech state and equipment type account.[243]

76. Pacific and SWBT identify costs for maintenance, administration, and loadings on investments through the application of annual cost factors to the investment for each type of equipment listed in Chart 1.[244] Pacific and SWBT also attach as Exhibit G the costs derived utilizing cost factors for maintenance and administration, buildings, and land.[245] Additionally, SWBT attaches as Exhibit G the expenses derived utilizing these cost factors for equipment and building maintenance, support assets, and ad valorem taxes.[246] Pacific and SWBT also assert that actual expenditures do not reflect the advancement costs associated with secondary investments, because these investments are associated with the advancement costs of central office equipment and are developed through the application of supplemental factors.[247]

C. Oppositions

77. In opposition, AT&T asserts that both Ameritech and Pacific/SWBT seek to double recover the costs of land, buildings, and maintenance.[248] AT&T asserts that Ameritech overstates its incremental investments associated with number portability.[249] For example, AT&T asserts that Ameritech did not provide any evidence that it made any new investments in buildings in order to provide number portability.[250] AT&T also asserts that any factors

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[241] *Id.* at Appendix E.

[242] *Id.*

[243] *Id.*

[244] Pacific Direct Case at 7; SWBT Direct Case at 8.

[245] *Id.*

[246] SWBT Direct Case at 8.

[247] Pacific Direct Case at 4; SWBT Direct Case at 4.

[248] AT&T Opposition at 21.

[249] *Id.* at 23.

[250] *Id.*

used by the incumbent LECs in their cost recovery calculations should only be applied to incremental investments.[251]

78. AT&T contends that Pacific and SWBT stated that their maintenance factors were derived by multiplying their equipment maintenance factors by an operating expense inflation factor, and applying that figure to their claimed investments.[252] AT&T opines that the *Designation Order* prohibits the LECs from simply applying a maintenance factor to the number of octets attributable to number portability, multiplied by their claimed average per octet cost, but instead requires them to identify incremental costs.[253] AT&T asserts that while the use of a factor may be the most practical method of determining these projected costs, the factor should be applied only to those incremental investments that would not have been made "but for" the provision of number portability.[254] AT&T asserts that, if anything, Pacific and SWBT's inflation factor should be replaced by a net factor that includes adjustments for the impact of productivity enhancements.[255]

D. Rebuttals

79. In reply comments, Ameritech asserts that it did not include any costs associated with land investment for number portability.[256] Ameritech also states that, in most cases, it developed building and maintenance costs by multiplying number portability incremental capital investments for central office equipment and call centers by a percentage loading factor to determine the amount of floor space investment required to support the investments.[257] Pacific and SWBT assert that neither seeks to double recover costs associated with land, buildings, and maintenance.[258]

E. Discussion

80. Based on our review of Ameritech's "supplemental" or "investment" loadings, we conclude that Ameritech has not met its legal burden of demonstrating that specific charges are reasonable and meet our test for cost recovery. Pacific and SWBT originally

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[251] *Id.*

[252] *Id.* at 21-22.

[253] AT&T Opposition at 22 (*citing Designation Order*, 14 FCC Rcd at 3374, para. 21).

[254] AT&T Opposition at 22.

[255] *Id.*

[256] Ameritech Rebuttal at 18.

[257] *Id.*

[258] SWBT and Pacific Rebuttal at 9-11.

included both loadings as well as annual cost factors, but in subsequent filings removed these claimed costs. We conclude that the revised submissions address the concerns raised during the course of the investigation, including concerns raised by parties in opposition, and are consistent with our cost recovery requirements. Accordingly, we find that the overheads claimed by Pacific and SWBT are just and reasonable. Our determinations are discussed below.

81. Ameritech, Pacific, and SWBT began by itemizing new buildings and other costs as expenditures incurred to provide number portability service. They then added loadings and factors to number portability investments in equipment and software using two methods. Pursuant to the first method, these incumbent LECs adjusted investments by adding "loadings" based on average relationships between such things as central office investment and floor space. Specifically, Ameritech adds building loadings.[259] SWBT added power, building, and "sundry and miscellaneous" loadings,[260] and Pacific added similar loadings as well as loadings for motor vehicles, "general purpose computers," and land.[261] Loadings applied to actual expenditures result in an "adjusted gross investment." Using the second method, annual cost factors are applied to these "adjusted gross investments" to allocate to number portability a share of the expenses that are applicable to all switched telephone services. Annual cost factors are developed for each expense by dividing each expense for a study year by the investment in that year. Multiplying these percentages by the number portability investment produces the associated number portability cost.

82. Appendix E of Ameritech's Direct Case lists "Building Investment."[262] In an *ex parte* presentation, Ameritech sufficiently demonstrated actual expenditures for two cost elements of Attachment E. We therefore allow these costs. Specifically, we allow the expenses claimed in lines a(4) (SCP/SMS Site Preparation) and a(9) (SIL Capital Test Equipment) claimed in Ameritech's *ex parte* of May 11, 1999.[263] Ameritech has not demonstrated that its remaining "Building Investments" are actually new costs. Ameritech has not provided detailed information regarding such buildings, indicating that these costs are not also being recovered through other services, or that these buildings are new costs pursuant to the *Cost Classification Order*.[264] Additionally, Ameritech has not demonstrated that its

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[259] Ameritech Direct Case, Appendix E at Schedule 1, page 1.

[260] SWBT Direct Case, Chart 1, Line 4; *see also* SWBT Direct Case, Attachment A, at 1; SWBT Direct Case, Attachment A, at 1.

[261] Pacific Direct Case, Chart 1, Line 1; *see also* Pacific Direct Case, Attachment A: Narrative Explanation of Cost Development of Chart 1, page 1.

[262] Ameritech Direct Case, Appendix E.

[263] Ameritech Direct Case, Appendix E; *See Ex Parte* Letter from James K. Smith, Ameritech, to Magalie Roman Salas, FCC (May 11, 1999).

[264] *Cost Classification Order*, 13 FCC Rcd at 24,503, para. 18.

building costs will actually increase during the next five years due to the provision of number portability service. Except for the two cost elements that represent actual tracked expenditures, we disallow the building investment costs claimed by Ameritech.

83. In their original filings, Pacific and SWBT did not justify or demonstrate that their claimed "loadings" or "supplemental investments" in their cost recovery calculations bore a direct relation to costs actually incurred for the provision of number portability.[265] In their original filings, neither carrier provided a sufficient justification for its use of these loadings. Neither carrier demonstrated that any part of these claimed loadings are new costs that were actually incurred, or that they meet the two-part test set forth in the *Cost Classification Order,* that is, these costs would not have been incurred "but for" number portability and are directly related to the provision of number portability.[266] Additionally, neither carrier demonstrated that such loadings will not result in double recovery because the costs are not being recovered elsewhere. Buildings, land, motor vehicles, computers and "sundry" services included in these loadings presumably are being recovered through rates for other services. We therefore conclude that these loadings, as claimed by Pacific and SWBT in their original tariffs, are unjust and unreasonable. However, based on questions raised during the course of our investigation, plus subsequent reviews of their own tariffs along with other tariffs that had been filed for number portability cost recovery, Pacific and SWBT revised their tariffs and removed these loadings. Upon review of Pacific and SWBT's tariff revision and based on subsequent discussions with these carriers, we determine that Pacific and SWBT have met their burden in demonstrating that their "power" loading costs would not have been incurred but for the provision of number portability.[267] This "power loading" consists of modifications to Pacific and SWBT's network of power equipment, cabling, and hardware that would not have been incurred but for the provision of number portability.[268] Pacific and SWBT have adequately addressed our concerns and justified this cost, based on the requirements of the *Third Report and Order* and *Cost Classification Order*. Because Pacific and SWBT have met their legal burden regarding this charge and have removed the loadings with which we had concerns, we will allow their power costs.

84. Additionally, in early *ex parte* communications, Pacific and SWBT revealed how they developed the annual cost factors they applied to their adjusted gross investments.[269] We continued to question Pacific and SWBT's arguments that these factors represent "advancement" costs, that is, costs incurred to replace equipment components that are retired

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[265] Pacific Direct Case, Chart 1, Line 1; SWBT Direct Case, Chart 1, Line 4.

[266] *Cost Classification Order*, 13 FCC Rcd at 24,500, para. 10.

[267] *See Ex Parte* Letter from Christine Jines, SBC, to Magalie Roman Salas, FCC (May 13, 1999).

[268] *See Ex Parte* Letter from Christine Jines, SBC, to Magalie Roman Salas, FCC (June 23, 1999).

[269] *See Ex Parte* Letter from Christine Jines, SBC, to Magalie Roman Salas, FCC (May 13, 1999).

earlier than anticipated due to number portability.[270] We find that the annual cost factors do not meet the cost recovery standard of the *Third Report and Order* and the *Cost Classification Order* and, for this reason, are unjust and unreasonable. In subsequent tariff filings, Pacific and SWBT addressed our concerns and removed these loadings.

85. In its original cost development, Pacific included an "admin" expense factor.[271] In an effort to explain this factor, Pacific presented a six-page list of several hundred accounts, which included such costs as payphone operations, Yellow Pages operations, telemarketing support, and a wide variety of other functions. We continued to express concern about this factor. We find that the annual cost factors do not meet the cost recovery standard of the *Third Report and Order* and the *Cost Classification Order* and, for this reason, are unjust and unreasonable. In a subsequent tariff filing, Pacific addressed our concerns about this factor and removed it from its tariff.

86. SWBT itemized and claimed substantial amounts of personnel expenses which are listed in Chart 1, Lines 10 and 16 of its Direct Case.[272] SWBT has sufficiently demonstrated that its itemized personnel expenses represent direct personnel costs of implementing number portability.[273] However, in its original filing, SWBT also included a "support assets" annual cost factor.[274] Upon examination of the accounts on which this factor was calculated, we noted that the accounts are comprised mainly of wages and salaries of personnel.[275] This annual cost factor also included capital costs of assets which SWBT admitted are not directly related to the provision of number portability.[276] We continued to question the fact that SWBT did not demonstrate that personnel-type costs reflected in its "support assets" factor were directly related to the provision of number portability, nor did it demonstrate that such costs were new, incremental costs actually incurred for the provision of number portability. However, in a subsequent tariff filing, SWBT removed this loading, thereby resolving our questions. Accordingly, we conclude that SWBT may recover those actual personnel expenses that it specifically identified and itemized in Chart 1, lines 10 and 16 of its Direct Case.

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[270] Pacific Direct Case at 5-6; SWBT Direct Case at 6.

[271] See *Ex Parte* Letter from Christine Jines, SBC, to Magalie Roman Salas, FCC (May 13, 1999).

[272] SWBT Direct Case at Chart 1, Lines 10 and 16.

[273] *Id.*

[274] *See Ex Parte* Letter from Christine Jines, SBC, to Carol Canteen, FCC (April 30, 1999).

[275] See *Ex Parte* Letter from Christine Jines, SBC, to Magalie Roman Salas, FCC (May 13, 1999).

[276] SWBT Direct Case, Attachment A, Exhibit 1, at 6 ("Support Asset expenses are defined as those costs not directly related to although required for, the provision of a specific product or service. . . . These costs can be assigned to plant categories but not to specific products or services").