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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20005

JUN 13 2000

Cost-Based Terminating Compensation	)	CC Docket Nos. 95-185, 96-98
for CMRS Providers	)	WT Docket No. 97-207

SPRINT PCS REPLY COMMENTS

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Summary of Sprint PCS Reply Comments

The law governing reciprocal compensation is clear. Congress determined in Section 252(d) of the Communications Act that "each carrier" is entitled to receive its "additional costs" of call termination.[1] The FCC has found that the "additional cost" of terminating a call originating on another network "includes only the usage-sensitive costs . . . but not the non-traffic sensitive costs."[2] The FCC has also established a procedure so that a "carrier other than the incumbent LEC" can recover its own call termination costs rather than use the ILEC's costs as a proxy: "prove to the state commission on the basis of a cost study . . . that the forward-looking costs for a network efficiently configured and operated by the carrier . . . exceed the costs incurred by the incumbent LEC . . . and, consequently, that such that (sic) a higher rate is justified."[3]

What is not clear is how this law applies to CMRS networks. Sprint PCS has therefore asked that the FCC provide for CMRS networks the same type of guidance that it has already provided for ILEC networks concerning their "additional costs" (*i.e.,* which network element costs are traffic sensitive and recoverable and therefore which are not). Specifically, Sprint PCS asked the FCC to determine whether mobile switches, cell sites, and spectrum should properly be included in a CMRS TELRIC cost study. It asked the FCC to apply the same economic analysis it used in determining whether tandem switches, interoffice facilities, end office switches, and copper loops should be included in a LEC TELRIC cost study. With the requested guidance, a CMRS carrier would be

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[1] 47 U.S.C. § 252(d)(2)(A).

[2] *First Local Competition Reconsideration Order,* 11 FCC Rcd 13042, 13045 ¶ 6 (1996).

[3] 47 C.F.R. § 51.711(b).

better able to prepare a cost study for submission to the state commissions for recovery of its additional costs of terminating traffic and state commissions would have a common framework for evaluating such submissions.

Sprint PCS' request has received considerable support, but it has been opposed by four parties: AT&T, BellSouth, USTA, and U S WEST. These opponents make three core arguments, each of which lacks merit. First, they contend that Sprint PCS is *not entitled* to recover its additional call termination costs — *regardless* of what those costs may be — because in their judgment, cost-based compensation for CMRS providers is "absurd," "anti-competitive," "contrary to sound public policy," and would involve "illegal subsidies."[4] However, Congress has already considered the policy issues relating to reciprocal compensation in competitive markets and has decided that "each carrier" is entitled to receive *its* "additional costs" of call termination. As BellSouth has recognized, "[t]he Commission is not free to rewrite the statutory requirements and require symmetry."[5] It is thus apparent that the opponents' principal issue with Sprint PCS' request is not with the demonstration it has made, but rather with the governing law itself.

Second, U S WEST and BellSouth contend that CMRS networks are the "functional equivalent" of LEC networks.[6] They assert that to "maintain parity" between LEC and CMRS networks,[7] CMRS call termination cost recovery should be limited to those CMRS network elements that are "functionally equivalent" to compensable LEC network elements — that is, because ILECs are precluded from recovering their non-

[4] *See* U S WEST at 2 and 7; BellSouth at 1; USTA at 9 and 10

[5] BellSouth Comments, Docket 96-98, at 73 (May 16, 1996).

[6] U S WEST at 7 BellSouth at 8-9.

[7] BellSouth at i and 5.

traffic-sensitive loop costs, CMRS providers should be precluded from recovering what they characterize as CMRS "loop equivalent" costs — even though the costs of base stations and spectrum are traffic sensitive.

Comparing the "fundamental technical differences" between CMRS and LEC networks is "like comparing the proverbial apples and oranges."[8] More fundamentally, this "functional equivalency" argument is at direct odds with Section 252(d). Congress did not condition CMRS reciprocal compensation to only those network elements deemed to be functionally equivalent to LEC networks. It rather stated unequivocally that "each carrier" is entitled to receive its "additional costs," which the Commission has defined to include traffic sensitive costs. As the Montana Commission has noted, in establishing the rates for reciprocal compensation, it is "more consistent with the language in the Act" to examine each carrier's costs than to attempt to compare the functional equivalency of various LEC and CMRS network components:

> [R]ather than comparing Western's MTSOs with US WEST's tandem switches, the Commission should determine transport and termination based on the specific costs incurred by each carrier or a reasonable approximation of the costs to terminate calls that originate on the other carrier's network.[9]

Finally, the Sprint PCS opponents claim that states do "not need" additional guidance because the FCC rules are "clear."[10] However, the position taken by the opponents — that Rule 51.771(b) which *permits* cost-based reciprocal compensation *actually prohibits* cost-based compensation — makes evident that application of FCC rules to CMRS networks is anything but clear.

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[8] *U S WEST* v. *Minnesota PUC,* 55 F. Supp. 2d, 968, 978 (D. Minn. 1999).

[9] *Western Wireless/U S WEST Arbitration Order,* Order No. 5949b, at 14 ¶ 24 (Dec. 27, 1996).

[10] BellSouth at 1, 5 and 14; USTA at 4.

Moreover, there is no basis for the claim that states are in a "far better position" than the FCC to interpret the Communications Act and FCC rules,[11] as recent history confirms. In 1996 the FCC decided that CMRS providers may use symmetrical rates if they choose not to prepare a cost study, and the question became whether CMRS providers should use in reciprocal compensation the ILEC's end office rate or its tandem rate. The FCC provided the states with some guidance, with Rule 51.711(a)(c) specifying that the ILEC's tandem rate should be used if CMRS provider's mobile switch "serves a geographic area comparable to the area served by the incumbent LEC's tandem switch."

U S WEST decided that notwithstanding this FCC Rule, CMRS providers should never be entitled to receive symmetrical compensation based on its tandem rate, and it arbitrated this end office/tandem symmetrical rate issue with CMRS providers in at least 13 of its states. U S WEST succeeded in obtaining its end office rate in seven states and lost (having to pay its tandem rate) in the other six states, with U S WEST filing appeals in those states. *See* Exhibit 1. At last count, U S WEST has re-litigated the identical issue before at least 19 different state commissions and federal courts.

The issues raised by the instant Sprint PCS' request (*e.g.,* whether base stations and spectrum are recoverable costs in reciprocal compensation) are far more complex than the relatively straightforward end office/tandem symmetrical rate issue that U S WEST litigated (and that other ILECs now want to litigate). No purpose would be served by requiring CMRS providers and ILECs to litigate the identical issues in each of the states. But the matter is far broader than administrative efficiency. In the 1993 Budget Act, Congress fundamentally altered the federal/state relationship relative to

[11] U S WEST at 1 and 5.

CMRS providers and LEC/CMRS interconnection in order to establish "a federal regulatory framework to govern the offering of all commercial mobile services" that "by their nature, operate without regard to state lines as an integral part of the national telecommunications infrastructure."[12] This "federal regulatory framework" will never be realized if each state, without any FCC guidance, must attempt to decipher which CMRS network elements constitute "additional costs" under the Act and "traffic sensitive costs" under the FCC's reciprocal compensation and TELRIC rules.

Sprint PCS is not asking the FCC to "trump" the state process as U S WEST claims.[13] Sprint PCS asks that the Commission provide the states for CMRS networks only the same type of guidance that it has already provided for ILEC networks, so CMRS providers can better prepare TELRIC cost studies for submission to the state commissions and state commissions will have a common framework for evaluating these submissions. Besides, as the Supreme Court has held, the question over the interpretation of the Act's interconnection provisions does not even involve a "states' rights" issue, but "whether it will be the FCC or the federal courts that draw the lines to which [the states] must hew."[14]

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[12] H.R. Conf. Rep. No. 103-213, 103d Cong., 1st Sess. 490 (1993); H.R. Rep. No. 103-111, 103d Cong., 1st Sess. 260 (1993).

[13] U S WEST at i and 6.

[14] *AT&T* v. *Iowa Utilities Board,* 525 U.S. 366 n.6 (1999).

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SPRINT PCS REPLY COMMENTS

Sprint Spectrum L.P., d/b/a Sprint PCS ("Sprint PCS"), submits this reply in support of its request that the Commission provide for CMRS networks the same type of guidance that it has already provided for ILEC networks concerning the "additional costs" language in the Communications Act. Specifically, Sprint PCS asked the Commission to determine whether mobile switches, cell sites, and spectrum should properly be included in a CMRS TELRIC cost study. It asked the Commission to apply the same economic analysis it used in determining whether tandem switches, end office switches, and copper loops should be included in a LEC TELRIC cost study. With the requested guidance, a CMRS carrier would be better able to prepare a cost study for submission to the state commissions for recovery of its additional costs of terminating traffic and state commissions would have a common framework for evaluating such submissions.

Sprint PCS' request, while receiving considerable support,[1] has been opposed by four parties.[2] For the most part, the four opponents do not discuss the specific issues that Sprint PCS has raised (*e.g.*, whether base station equipment is an "additional

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[1] Supporting comments have been filed by Alpine PCS; the Cellular Telecommunications Industry Association ("CTIA"); Cellular XL Associates; Centennial Communications; GTE Service Corporation; Metrocall; the Personal Communications Industry Association ("PCIA"); the Rural Telecommunications Group; VoiceStream; and Western Wireless.

[2] Oppositions were filed by AT&T Corp. ("AT&T"); BellSouth Corporation ("BellSouth"); the United States Telecom Association ("USTA"); U S WEST Communications ("U S WEST").

cost" and therefore recoverable in reciprocal compensation). They rather contend that Sprint PCS is *not entitled* to recover its additional call termination costs — *regardless* of what those costs may be — because in their judgment, cost-based compensation for CMRS providers is "absurd," "anti-competitive," "contrary to sound public policy," and would involve "illegal subsidies." The opponents make these claims even though they acknowledge that Congress was unequivocal in declaring that "each carrier" may recover its "additional" call termination costs in reciprocal compensation.[3] It is thus apparent that the opponents' issue with Sprint PCS' request is not with the demonstration it has made, but rather with the governing law itself.

I. The Numerous Policy Arguments that the Opponents Raise Are Irrelevant Given the Specificity With Which Congress Has Spoken

The opposition filings are replete with numerous policy arguments, many of which repeat positions the same ILECs have used over the past decade in opposing even symmetrical reciprocal compensation for CMRS providers.[4] They assert that cost-based rates for reciprocal compensation are "absurd" and "silly,"[5] "anti-competitive and contrary to sound public policy,"[6] and would involve "illegal subsidies."[7] (None of these ILECs mention that for decades ILECs have used asymmetrical arrangements in compensating each other.)

These policy arguments are irrelevant. Congress has already considered the policy issues relating to reciprocal compensation in competitive markets and has de-

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[3] 47 U.S.C. § 252(d)(2).

[4] *See* History, Attachment A.

[5] U S WEST at 2, 7, and 15.

[6] BellSouth at 1.

[7] USTA at 9 and 10.

cided that "each carrier" is entitled to receive the "additional costs" associated with "the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier's network."[8] The Supreme Court has held that where Congress has "directly spoken to the precise question at issue," conflicting agency action is impermissible.[9] The language Congress used in its reciprocal compensation statute — "each carrier" and "additional costs" — is clear and unambiguous.[10] Not only is the current asymmetrical compensation rule consistent with these Congressional directives, but given the clarity of the statute, it is questionable whether the FCC could preclude a carrier from recovering its additional call termination costs.

Sprint PCS finds itself in the curious position of agreeing with many of the statements of its opponents, albeit statements made in 1996. As BellSouth previously recognized, "[t]he Commission is not free to rewrite the statutory requirements and require symmetry."[11] As USTA advocated, "each carrier should recover its own costs" because "one carrier's costs are likely to be quite different from another carrier's costs."[12] And, as AT&T once believed, "Basic principles of efficient pricing demonstrate that the

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[8] 47 U.S.C. § 252(d)(2)(A).

[9] *Chevron USA* v. *Natural Resources Defense Council,* 467 U.S. 837, 842-43 (1994). The FCC will recall where with the best of intentions and policy reasons, it attempted unsuccessfully to preclude toll carriers from filing tariffs. Indeed, the Supreme Court held that even permissive detariffing conflicted with the clear language of the Act and was not within the agency's authority despite the FCC's contention that its action furthered the broader purposes of the Act. *See MCI* v. *AT&T,* 512 U.S. 218, 229 (1994). *See also Federal Election Comm'n* v. *NRA Political Victory Fund,* 513 U.S. 88, 94-95 (1994); *National Credit Union* v. *First National Bank,* 522 U.S. 479, 499-500 (1998); *Public Employees Retirement System* v. *Betts,* 492 U.S. 158, 171-72 (1989).

[10] *See, e.g., Asiana Airlines* v. *FAA,* 134 F.3d 393, 402 (D.C. Cir. 1998)("Statutory language requiring that 'each' fee be 'directly related to . . . the cost of providing the service rendered' expresses a clear congressional intent that fees must be established in such a way that each flight pays according to the burden associated with servicing that flight.").

[11] BellSouth Comments, Docket 96-98, at 73 (May 16, 1996).

[12] USTA Comments, Docket 96-98, at 82-83 (May 16, 1996).

correct long-term solution to recovering the costs of interconnection is for *each provider* to base *its* charges on the costs of terminating traffic."[13]

In 1996, Sprint PCS supported a "bill and keep" regime for intercarrier compensation.[14] The FCC did not agree. Having won the day in 1996, the ILECs and AT&T apparently want the FCC now to change course. Sprint PCS is not petitioning for a rule change; rather, Sprint PCS is seeking guidance as to how to apply the existing rule to CMRS networks.

Even if policy considerations were relevant in the application of existing rules, the Commission has already addressed the core policy question. The FCC's vision for the CMRS industry is to become "a true competitive alternative to the local exchange services offered by ILECs, particularly for residential customers."[15] It has further noted that direct competition between LEC and CMRS services will not occur until each carrier recovers its "actual costs of interconnection":[16]

> With the asymmetrical, or non-symmetrical, compensation approach, CMRS carriers would not need to recover their costs with a distinct 'airtime' charge for use of the CMRS carriers' network if all of the costs related to completing a call to a wireless phone are included in the "asymmetrical" rate.[17]

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[13] AT&T Comments, Docket 95-185, at 16 (March 4, 1996) (emphasis added).

[14] Contrary to USTA's position (*see* 4-9) there is nothing inconsistent with the position Sprint PCS took in 1996 and the position it is taking today. Sprint PCS still offers "bill and keep" to USTA's members in interconnection negotiations, but has so far found very few takers.

[15] *Calling Party Pays Services,* 14 FCC Rcd 10861 at ¶ 21 (July 7, 1999).

[16] *Second Annual CMRS Competition Report,* 12 FCC Rcd 11266, 11325-26 (1997).

[17] *Calling Party Pays NPRM,* 14 FCC Rcd 10861 at ¶ 72. BellSouth charges that Sprint PCS' receipt of cost-based reciprocal compensation would give Sprint PCS an "unearned competitive advantage." BellSouth at 5 and 14. BellSouth does not explain, however, how recovering one's costs from the cost-causer would give that carrier a competitive advantage in the market.

It will not be possible for CMRS and LEC providers to compete head-to-head so long as CMRS customers, unlike LEC customers, must pay for the costs of receiving calls. So long as CMRS providers receive in reciprocal compensation something less than their actual costs of terminating calls (using TELRIC principles), CMRS carriers and their customers will continue to effectively subsidize costs that Congress has determined are appropriately paid by originating carriers.

II. Congress Did Not Limit CMRS Reciprocal Compensation to Those CMRS Network Elements Deemed "Functionally Equivalent" to LEC Network Elements

U S WEST and BellSouth contend that CMRS networks are the "functional equivalent" of LEC networks.[18] LEC and CMRS networks certainly perform similar functions: both technologies permit people to receive calls originated on other networks. But "functional equivalency" does not answer the core question posed in a Section 252(d) reciprocal compensation inquiry: whether one carrier has greater "additional" call termination costs justifying a higher rate for call termination.[19] As the Montana Commission has noted, in establishing the rates for reciprocal compensation it is "more consistent with the language in the Act" to examine each carrier's costs than to

[18] *See, e.g.,* U S WEST at 7 ("Sprint PCS' basic assumption that the wireless and wireline networks are fundamentally incomparable is simply wrong."); BellSouth at 8-9. BellSouth further contends that the "economics of ILEC loops and the loop-equivalents in the CMRS network are essentially the same." BellSouth at 7. Suffice it to say that no regulator or court has agreed with this proposition. *See, e.g., U S WEST* v. *Minnesota PUC,* 55 F. Supp. 2d 968, 978 (D. Minn. 1999) (Given the "fundamental technical differences between wireless and landline telephone systems," comparing them is "like comparing the proverbial apples and oranges.").

[19] The source of the term "functionally equivalent" is the FCC's definition of call termination. *See* 47 C.F.R. § 51.701(d)("[T]ermination is the switching of local telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, *and delivery of such traffic to the called party's premises.*")(emphasis added). In determining what elements of delivery are properly included in reciprocal compensation, the FCC held only that traffic sensitive costs are properly included.

attempt to compare the functional equivalency of various LEC and CMRS network components:

> Ideally, rather than comparing Western's MTSOs with U S WEST's tandem switches, the Commission should determine transport and termination based on the specific costs incurred by each carrier or a reasonable approximation of the costs to terminate calls that originate on the other carrier's network. This would be more consistent with the language in the Act.[20]

No one, including BellSouth and U S WEST, disputes the proposition that CMRS networks contain more traffic sensitive network elements than LEC networks and that as a result, CMRS providers incur greater "additional costs" in terminating calls compared to LECs.[21] In fact, AT&T has expressly acknowledged that LEC call termination costs are "far below" CMRS call termination costs because CMRS networks are more traffic sensitive than LEC networks:

> A LEC's interconnection costs are relatively less traffic sensitive . . . . By contrast, almost all of the plant in a CMRS network is traffic sensitive. . . . As traffic on a CMRS system increases, the network's capacity must continually be enhanced through cell sectorization, the addition of new radios in each sector, and the construction of new cell sites . . . . Thus, the traffic-sensitive nature of the CMRS networks and the complexity of wireless communications result in higher costs for CMRS call termination services.[22]

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[20] *Western Wireless/U S WEST Arbitration Order,* Order No. 5949b, at 14 ¶ 24 (Dec. 27, 1996).

[21] In fact, U S WEST concedes this point. *See* U S WEST at 12 (A ILEC's "distribution plant is more frequently dedicated in its entirety to individual end users than spectrum is."). *See also* USTA at 2-3 (USTA recognizes that CMRS operators incur higher call termination costs). Indeed, the FCC noted only last week that even two LEC networks serving the same area may not have the same costs and that it may therefore be appropriate for them to charge different interconnection rates. *See Sprint Communications Co.* v. *MGC Communications,* File No. ED-00-MD-002, FCC 00-206, at ¶ 6 (June 9, 2000)("[A] CLEC's costs may not be comparable to those of an ILEC.").

[22] AT&T Comments, Docket 95-185, at 10-12 (March 4, 1996). The FCC

The FCC has also recognized that "the cost of CMRS termination . . . is generally considered to be greater than the cost of LEC termination."[23]

Congress did not state that a CMRS provider's ability to recover its call termination costs is limited to those CMRS network elements deemed functionally equivalent to compensable ILEC network elements. Congress rather declared that "each carrier" is authorized to recover its "additional costs" of call termination — which the FCC has defined to "include only the usage-sensitive costs . . . but not the non-traffic-sensitive costs."[24] BellSouth's and U S WEST's focus on functional equivalency is an attempt to divert the FCC's attention from the real question raised in a Section 252(d) inquiry and to preclude Sprint PCS from recovering all of its "additional costs" of terminating traffic.

III. The Commission Has an Obligation to Provide to the States the Additional Guidance That Sprint PCS Seeks, and States Have Made Clear That They Would Welcome Such Guidance

The Supreme Court has held that that this Commission has the authority to adopt rules implementing the 1996 Act, including rules governing interconnection compensation pertaining to intrastate traffic.[25] The Court further recognized the important role that the FCC can play in providing additional guidance to the states in interpreting both the Communications Act and its implementing rules:

> The question is whether the state commissions' participation in the administration of the new *federal* regime is to be guided by federal-agency regulations. If there is any "presumption" applicable to this question, it should arise from the fact that a federal program

[23] *First Local Competition Order,* 11 FCC Rcd 15499, 16057 ¶ 1117 (1996).

[24] *First Local Competition Reconsideration Order,* 11 FCC Rcd 13042, 13045 ¶ 6 (1996).

[25] *See AT&T* v. *Iowa Utilities Board,* 525 U.S. 366, 119 S. Ct. 721 (1999).

> administered by 50 independent state agencies is surpassing strange.[26]

Indeed, the Court recognized that the question over interpretation of the Communications Act is not "states' rights" issue at all, but "whether it will be the FCC or the federal courts that draw the lines to which [the states] must hew."[27] The Court determined that the implementation of a complex federal statute is better achieved through uniform federal agency rules and guidance rather than leaving the statute's interpretation and application to dozens of different federal courts.

The Commission has adopted a reciprocal compensation rule, Rule 51.711, that applies to all carriers. It has further provided guidance to the states over how this rule should be applied to ILEC landline networks. It has not, however, provided similar guidance over how the same rule should be applied to the more complex CMRS mobile networks. Sprint PCS now asks only that the Commission provide the same level of guidance for CMRS networks that it has already provided for LEC networks.[28]

Sprint PCS submits that the Commission has an affirmative obligation to provide *at least* the same level of guidance for CMRS networks that is has provided for

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[26] *Id.* at n.6 (emphasis in original). There is, therefore, no basis whatever for U S WEST's assertion that Sprint PCS wants the FCC to "trump" the states. U S WEST at 6. Besides, under the Communications Act, and particularly with the 1993 Budget Act, the FCC has a statutory responsibility to "trump" the states on issues affecting CMRS providers.

[27] *AT&T* v. *Iowa Utilities Board,* 525 U.S. 366 at n.6.

[28] Completely baseless is U S WEST's assertion that Sprint PCS wants to "carve out a special exemption for CMRS providers." U S WEST at 1. In fact, on behalf of the CMRS industry, Sprint PCS seeks only "equal time" from the FCC. In this regard, the FCC continues to provide additional clarification for LEC/LEC interconnection. *See, e.g., Supplemental Clarification Order,* Docket No. 96-98, FCC 00-183 (June 2, 2000).

Also baseless is U S WEST's assertion that Sprint PCS wants the FCC "to *bar* states from using symmetrical rates." *Id.* at 7 (emphasis in original). In fact, Sprint PCS does *not* challenge the presumptive symmetrical compensation rule set forth in Rule 51.711(a). Any carrier, CMRS or

LEC networks. Congress radically changed the federal/state relationship relative to CMRS networks in the 1993 Budget Act by both reducing state authority over CMRS providers and concurrently expanding the FCC's authority.[29] Congress made these changes specifically to establish "a *federal* regulatory framework to govern the offering of all commercial mobile services."[30] Congress' intent in establishing this federal regulatory strategy was to "foster the growth and development of mobile services that, by their nature, operate without regard to state lines as an integral part of the national telecommunications infrastructure."[31] Especially with the 1993 amendments to Sections 2(b) and 332(c)(1), the conclusion is inescapable that Congress expects that the FCC will establish national rules and guidelines governing CMRS providers, including LEC/CMRS interconnection.[32]

BellSouth and USTA nonetheless assert that state commissions "need no guidance" because existing FCC rules "are clear."[33] These two parties contend that state regulators have acted "in accordance with" FCC rules by "treating 'equivalent facilities' in a consistent manner and by maintaining parity between wireline carriers and CMRS

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otherwise, seeking an asymmetric compensation rate, would be required to perform a cost study demonstrating their costs are in fact higher.

[29] *See* History, Attachment A.

[30] H.R. Conf. Rep. No. 103-213, 103d Cong., 1st Sess. 490 (1993)(emphasis added).

[31] H.R. Rep. No. 103-111, 103d Cong., 1st Sess. 260 (1993).

[32] Indeed, given the Section 332(c)(3) prohibition on state CMRS rate regulation, powerful arguments can be made that Congress expects the FCC to preempt all aspects of LEC/CMRS interconnection. *See* Attachment A at n.7.

[33] BellSouth at 1, 5, and 14. *See also* USTA at 4 ("State commissions need no additional guidance to apply the Commission's rules applicable to reciprocal compensation received by CMRS providers."). *But see* USTA Reply Comments, Docket 96-98, at 1 (May 30, 1996)("USTA . . . continues to believe that the Commission has a vital role to play in the Section 251 implementation process through the promulgation of broad national guidelines for states and private parties to follow with respect to various aspects of their interconnection and unbundling negotiations.").

providers in determining what constitutes 'additional costs' eligible for reciprocal compensation."[34] U S WEST takes an even more extreme position. According to this ILEC, state commissions are in a "far better position" than the FCC (a) to interpret the Communications Act and FCC implementing rules and (b) to apply these rules to complex CMRS networks over which they have little familiarity (and in many cases, no regulatory authority).[35]

Certain state commissions have held that CMRS providers are limited to recovering their switching costs and are precluded from recovering traffic sensitive costs associated with other network elements used in call termination.[36] Of course, the FCC has never ruled, much less made "clear,"[37] that CMRS providers may not recover all of their additional costs of call termination. Thus in making this "states will maintain parity" argument, these ILECs are obviously hoping that state commissions will either ignore the FCC's asymmetrical compensation rule or ignore the "additional cost" language in the reciprocal compensation statute.

The unsupported assertions that states have followed the FCC rules "exactly" and have treated "'equivalent facilities' in a consistent manner"[38] is rebutted by all available facts. The FCC decided in 1996 that CMRS providers may receive symmetrical

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[34] USTA at 4 and BellSouth at 5.

[35] U S WEST at 5. *See also id.* at 1 (The issue Sprint PCS raises "is more appropriately left to the states.").

[36] *See* Sprint PCS Letter, Dockets 95-185. 96-98, 97-207, at 2-3 (Feb. 2, 2000); Legal Memorandum at 8-11.

[37] *See Cook Telecom/Pacific Bell Arbitration Order,* Decision No. 97-09-123 (California, Sept. 24, 1997)("It is clear from this statement [in ¶ 1057] that the FCC did not intend, when referring to the 'delivery' of calls in its definition, to have the costs of facilities beyond the end-office switch included in the termination rate.").

[38] *See* U S WEST at 5; BellSouth at 5; USTA at 4.

rates if they choose not to prepare a cost study.[39] The question then became whether CMRS providers should use a LEC's end office termination rate or its tandem termination rate for its own symmetrical compensation rate. The Commission provided the states with some guidance on this issue, with FCC Rule 51.711(a)(c) stating:

> Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate.

Notwithstanding this guidance, states have encountered considerable difficulty in determining whether CMRS providers should use for their reciprocal compensation rate an ILEC's end office or tandem rate.

For example, U S WEST decided that notwithstanding Rule 51.711(a)(c), CMRS providers should never be entitled to receive symmetrical compensation based on its tandem rate, and it arbitrated this end office/tandem symmetrical rate issue with CMRS providers in at least 13 of its states.[40] U S WEST succeeded in obtaining the end office rate in seven states and lost (having to pay its tandem rate) in the other six states. *See* Exhibit 1. U S WEST filed appeals in at least five of the states where it was unsuccessful (losing each one), and it has appealed at least one of these district court decisions.[41] The inconsistent decisions were due to U S WEST's position that the states were free to ignore the FCC rule on point, because according to U S WEST, geographic com-

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[39] *See* 47 C.F.R. § 51.711(a).

[40] U S WEST also re-litigated the identical end office/tandem issue in different arbitrations in the *same* state. *See, e.g., Aerial/USWEST Arbitration,* Docket No. P-421/EM-97-1337 (Minn., Dec. 31, 1997), *recon. denied* (Feb. 27, 1998), *aff'd U S WEST* v. *Minnesota PUC,* 55 F. Supp. 2d 968 (D. Minn. 1999), *appeal pending,* No. 99-3080 (8th Cir.); *AT&T Wireless/U S WEST Arbitration,* Docket No. P-421/EM-97-371 (Minn., July 30, 1997).

[41] *See* Exhibit 1. See also VoiceStream at 3.

parability is "not . . an appropriate measure" on upon which to decide whether to apply the ILEC end office or tandem rate.[42]

Thus, even in a situation where the Commission has provided guidance, U S WEST has been able to re-litigate the identical issue before at least 19 different state commissions and federal courts — and not surprisingly given the number of forums where U S WEST litigated the issue, the states reached conflicting decisions. Remarkably, U S WEST would now have the FCC believe that "nothing is gained" by further FCC clarification of the far more complex issues that Sprint PCS now raises.[43]

USTA says that it is "unaware" of any state commission "stating any confusion over how to apply the Commission's reciprocal compensation regulations to CMRS providers."[44] In fact, numerous state commissions have made clear that they would welcome additional FCC guidance. For example,

- Montana Commission: "It is difficult to determine the functional equivalence between Western's MTSOs and U S WEST's tandems because their network architectures and technologies are different."[45]
- Nebraska Commission: "It is difficult to determine the functional equivalence between Western's [MTSOs] and US West's tandems because their network architectures and technologies are different."[46]
- Washington Commission: "[T]he determination of symmetrical compensation was a difficult endeavor . . . . Insofar as the network architectures for a landline carrier and a [CMRS] are so different, compari-

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[42] *U S WEST* v. *Serna,* Civ. No. 97-124 JP/JHG (D.N.M., Aug. 25, 1999). *See also U S WEST* v. *Utah PSC,* 75 F. Supp. 2d 1284, 1289 (D. Utah, Nov. 23, 1999)("US West then argues that the fact that Western's system serves a geographic area that is at least as large as the geographic area served by US West is an insufficient basis upon which to sustain the Commission's ruling.").

[43] U S WEST at 5. *See also id.* at 3 ("Sprint PCS gives no reason why the Commission now should step in and disrupt nearly four years of state proceedings.").

[44] USTA at 10.

[45] *Western Wireless/U S WEST Arbitration Order,* Order No. 59496, at 13 ¶ 23 (Montana, Dec. 27, 1996).

[46] *Western Wireless/U S WEST Arbitration Order,* No. C-1409 (Nebraska, April 1, 1997).

sons are more difficult to make. . . . The decision regarding the appropriate symmetrical compensation rate for the transport and termination of traffic between the parties is factually complex."[47]

- Wyoming Commission: "U S WEST's position would apply its own network topology to Western Wireless in this matter, even though the networks of wireline and wireless carriers are considerably different."[48]

Federal courts have encountered the same difficulty, with one judge recently noting that there are "no exact corollaries between the wireless and landline systems":

> The fundamental technical differences between wireless and landline telephone systems greatly complicate the comparison of functions of their component elements. It is to some extent like comparing the proverbial apples and oranges.[49]

It is apparent that what these ILECs really want is the opportunity to relitigate the identical issues in different states (and in U S WEST's case, multiple times in the same state). The BellSouth and U S WEST comments further demonstrate the arguments ILECs intend to make in the states: notwithstanding the FCC's cost-based compensation rule, CMRS providers are not entitled to recover their additional costs of call termination because, ILECs will claim, certain CMRS network elements are not functionally equivalent to compensable ILEC network elements.

This state-by-state, hodgepodge procedure that these ILECs favor is not efficient, and it can lead to odd (if not, indefensible) results.[50] But the matter is far

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[47] *AT&T Wireless/U S WEST Arbitration Order,* Docket No. UT-960381 (Wash., Oct. 6, 1997).

[48] *Western Wireless/U S WEST Arbitration Order,* Docket No. 70000-TF-96-308, at 3 (Wyoming, Dec. 27,1996).

[49] *U S WEST* v. *Minnesota PUC,* 55 F. Supp. 2d 968, 978 (D. Minn. 1999).

[50] Many CMRS mobile switching centers ("MSCs") often support service in more than one state (corresponding to their multi-state service areas). Thus, inconsistent PUC decisions can lead to the absurd result whereby the same MSC is treated as an end office in one state and a tandem in another state — resulting in the same ILEC paying different compensation rates for traffic traversing the identical MSC.

broader than administrative efficiency. The "federal regulatory framework" that Congress envisioned for the CMRS industry will never be realized if each state, without any FCC guidance, must attempt to decipher which CMRS network elements constitute "additional costs" under the Act and "traffic sensitive costs" under the FCC's reciprocal compensation and TELRIC rules.

IV. Under Existing FCC Rules, Sprint PCS Is Entitled to Recover All of its Additional Call Termination Costs from the Network Operator Serving the Calling Party

The Commission has held that "additional" costs of call termination should be determined using TELRIC principles, and it has provided guidance as to how those principles should be applied to ILEC networks. The Charles River Associates ("CRA") economic White Paper that Sprint PCS has submitted applies the same TELRIC principles to vastly different and more sophisticated mobile networks.

AT&T does not challenge the CRA economic analysis; it rather asserts erroneously that existing rules preclude Sprint PCS from recovering its own call termination costs.[51] In contrast, BellSouth and U S WEST acknowledge Sprint PCS' right to receive cost-based reciprocal compensation, but contend that the CRA economic analysis is "misleading" and leads to "absurd results."[52] The CRA economic analysis is consistent with all available precedent. Under this precedent, Sprint PCS is entitled to receive in reciprocal compensation all its additional call termination costs — that is, the costs of *all*

[51] AT&T does claim in passing (a footnote) that Sprint PCS' classification of incremental and fixed costs is "fundamentally flawed," but it does not explain the supposed flaw. AT&T at 5 n.13.

[52] BellSouth at 6; U S WEST at 2 and 7. The fourth opponent, USTA, makes no attempt to challenge Sprint PCS' legal and economic analysis.

traffic sensitive network components, not just the traffic sensitive portion of its mobile switching centers.

A. While Sprint PCS Supports TELRIC, AT&T's Novel TELRIC Theories Lack Merit

AT&T devotes most of its comments to reiterating why TELIRC pricing is important to the development of competitive markets. Sprint PCS supports TELIRC because as AT&T observes, forward-looking cost principles "promote efficiency and competition."[53] Indeed, Sprint PCS has proposed that TELRIC be used *both* for local compensation *and* for exchange access:

> Because CMRS carriers incur the same cost in terminating a local call that they incur in terminating a long distance call, it would make sense for CMRS providers to charge the same rate for local termination and exchange access. . . . Sprint PCS therefore believes that CMRS providers should also use a forward-looking economic cost standard in establishing their terminating access charges.[54]

AT&T, however, objects to Sprint PCS receiving cost-based compensation even though Sprint PCS proposes using the forward-looking economic cost of an efficient CMRS operator in order to compute its additional costs.[55] According to AT&T, the

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[53] AT&T at 7.

[54] Sprint PCS Legal Memorandum at 4 n.9. AT&T is wrong in asserting that the FCC has "never ruled that CMRS providers have the authority to charge IXCs for terminating access" and that a toll carrier can require a CMRS carrier to provide its exchange access for free. AT&T at 4 n.10. *Compare CMRS Interconnection*, 9 FCC Rcd 5408, 5447 ¶ 93 (1994)("[C]ellular carriers are entitled to just and reasonable compensation for their provision of access."); *RCC Interconnection Declaratory Ruling,* 2 FCC Rcd 2910, 2915 ¶ 44 (1987).

[55] There is no basis whatever for AT&T's assertion that cost-based reciprocal compensation will "encourage gold plating." AT&T at 9. As AT&T itself recognizes, because TELRIC is "based on the least-cost, most efficient network configuration" available, TELRIC does "not take into account historical or embedded costs and does not cover the idiosyncratic costs of each and every carrier." *Id.* at 2.

Commission "has correctly concluded" that for reciprocal compensation purposes, TELRIC may be applied using only "the most efficient *wireline* technology."[56] In other words, according to AT&T, CMRS providers have no choice but to use for their own terminating compensation rate the TELRIC cost-based rate charged by ILECs because ILECs use the most efficient technology. AT&T therefore urges the Commission to "refrain from considering changes to the [current] regime" and to reject Sprint PCS' allegedly "new intercarrier compensation principle."[57]

In fact, it is AT&T that wants to change the current rules and to apply a new intercarrier compensation principle. The Commission has *never* held that TELRIC may be applied to "wireline" networks only. To the contrary, it specifically directed paging carriers to set their call termination rate "based on the forward-looking economic costs of such termination to the paging provider."[58] Similarly, Rule 51.711(b), which AT&T curiously ignores,[59] explicitly provides that a "carrier other than the incumbent LEC" may impose a "higher rate" for call termination upon establishing "on the basis of a cost study using the forward-looking economic cost based pricing methodology . . . that

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Also without merit is AT&T's assertion that TELRIC assumes "100 percent of demand." *Id.* at 2. In fact, TELRIC uses "reasonably accurate 'fill factors.'" *First Local Competition Order,* 11 FCC Rcd at 15847 ¶ 682.

[56] AT&T at 2 and 7 (emphasis added).

[57] AT&T at 5 and 7.

[58] *First Local Competition Order,* 11 FCC Rcd at 16043 ¶ 1093. *See also* 47 C.F.R. § 51.711(c).

[59] Unlike the other three opponents, AT&T pretends that the FCC never adopted Rule 51.771(b) and that the issue of asymmetrical compensation remains an open issue: "*If* the Commission decides that carriers with higher costs are permitted to charge higher termination rates for local calls . . . ." AT&T at 6 (emphasis added).

the forward-looking costs for a network *efficiently configured and operated by the carrier* other than the incumbent LEC . . . exceed the costs incurred by the incumbent LEC."[60]

In the end, AT&T's position amounts to a disagreement with the policy judgment that Congress made when it determined that "each carrier" may recover in reciprocal compensation its "additional" call termination costs. AT&T apparently believes that that only mobile customers benefit from mobile service and that therefore, only they should pay the higher costs associated with operating mobile networks.[61] Suffice it to say that the Congress considered this very issue and nonetheless determined that "each carrier" should recover its "additional costs." As the Commission has recognized independently in a different setting, both the originating LEC caller and the CMRS customer being called benefit by interconnection for land-to-mobile traffic:

> [Increased] use of mobile wireless services . . . provides certain benefits to both calling parties, who otherwise would not be able to complete calls to CMRS subscribers who keep their phones off [or who do not purchase CMRS], and CMRS subscribers, who would no longer have an economic incentive to avoid or minimize the acceptance of calls.[62]

In summary, AT&T would have the Commission believe that it adopted its asymmetrical compensation rule in such a way that *no* carrier can take advantage of it (because all carriers must use the ILEC's rates). This argument is not credible on its face; it is also flatly inconsistent with the Congressional declaration that "each carrier" may recover its "additional costs" of call termination.

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[60] 47 C.F.R. § 51.711(b)(emphasis added).

[61] *See* AT&T at 7-8.

[62] *Calling Party Pays Service,* 14 FCC Rcd 10861, 10863 ¶ 3 (1999).

B. Contrary to BellSouth's and U S WEST's Assertions, Sprint PCS Has Correctly Applied the FCC's TELRIC Standard

BellSouth asserts that the economic analysis that Sprint PCS has used is "misleading,"[63] while U S WEST claims that the analysis leads to "absurd results."[64] In fact, the Charles River Associates ("CRA") analysis is entirely consistent with TELRIC rules that the Commission has established and leads to results that promote competition.

1. Sprint PCS Does Not Contend, as BellSouth and U S WEST Assert, That All Shared Costs Are Compensable

BellSouth and U S WEST criticize Sprint PCS for its position regarding "shared" facilities, asserting that Sprint PCS advocates recovery of all shared costs:

- "Sprint PCS suggests that all costs incurred on 'shared' facilities are 'traffic sensitive' and as such should be recoverable in reciprocal compensation" (U S WEST at 2).
- "Sprint PCS' simplistic suggestion what whether a facility is shared or dedicated should be the *sole* determinate of whether its costs goes into termination rates ignores that a large portion of the incumbents' loop plan *also* is shared" (*id.* at 7)(emphasis in original).
- "Sprint PCS contends that the Commission's current reciprocal compensation rules boils down *entirely* to a question of whether a carrier's transport and termination facilities are shared or dedicated to a single user" (*id.* at 13)(emphasis in original).
- "In Sprint PCS' view, if a network facility is shared, the costs of that facility are 'additional costs' within the meaning of [the statute]" (*id.* at 13).
- "The attempt by Sprint PCS to define 'additional cost' in terms of 'shared' facilities is inconsistent with the *Order* and the Commission's Rules" (BellSouth at 13).

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[63] BellSouth at 6.

[64] U S WEST at 2 and 7.

These ILECs then assert that the "line Sprint hopes to draw between shared and dedicated facilities makes no sense . . . and it is certainly not the one the Commission has drawn to date."[65]

BellSouth and U S WEST grossly mischaracterize Sprint PCS' position, for Sprint PCS has *not* claimed that *all* shared facilities are recoverable.[66] Indeed, Sprint PCS agrees with BellSouth that "whether a function or network component is shared does not determine whether its costs are to be included in the costs of transport and termination."[67] Rather, only a *subset* of shared costs are recoverable in reciprocal compensation using a TELRIC standard. The decisive factor in determining whether a shared cost is compensable is, as BellSouth itself notes, whether the shared cost is traffic sensitive:

> [T]he only facilities eligible for inclusion in a reciprocal compensation cost study are those whose costs varies "in proportion to the number of calls terminated over these facilities."[68]

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[65] U S WEST at 13.

[66] *See* CRA White Paper at 10 ("We inquire whether each component of a PCS network is shared by several users or whether it is dedicated to a single user. *Next,* we consider whether each component's costs are traffic sensitive.")(emphasis added). As Sprint PCS explained, consideration of whether a particular network element is shared or dedicated is "useful" because dedicated facilities clearly do not result in additional costs when calls are terminated. Legal Memorandum at 4 n.10. The FCC has noted that network providers incur two types of costs: "dedicated and shared. Dedicated facilities are those that are used by a single party - either an end user or an interconnecting network. Shared facilities are those used by multiple parties." *First Local Competition Order,* 11 FCC Rcd at 15873 ¶ 741. Indeed, the FCC used the phrase "costs of shared facilities" throughout its *Order.*

[67] BellSouth at 13.

[68] *Id.* at 7, *quoting First Local Competition Order,* 11 FCC Rcd at 16025 ¶ 1057. The FCC phrase "in proportion to the number of calls" should not be read as a mathematical rule requiring that all relevant costs be strictly proportional to (or linear in) the number of attempted or completed calls. Rather, the rule should be read as a general statement that for traffic sensitive elements, increased traffic results in increased costs. The FCC has noted on numerous occasions that some costs are sensitive to call attempts while other costs are sensitive to minutes of use. Indeed, if strict proportionality between costs and the number of attempted or completed calls were required (and they are not under the TELRIC methodology), virtually no costs would be traffic sensitive.

Section 252(d) provides that "each carrier" shall recover "the additional costs of terminating . . . calls." As BellSouth points out, certain LEC facilities such as trenches, poles, and conduits are shared facilities but their associated costs are not compensable because the costs are not traffic sensitive — or to use BellSouth's words, the costs in question do not "vary in proportion" to the amount of terminating traffic generated.[69]

The Commission has similarly held that a LEC's loop costs are not compensable because they are non-traffic sensitive: "the 'additional cost' to the incumbent LEC of terminating a call that originates on another network includes only the usage-sensitive costs . . . , but not the non-traffic sensitive costs of local loops and line ports associated with the local loops":

> Such non-traffic sensitive costs, by definition, do not vary in proportion to the number of calls terminating over the LEC's facilities and, thus, are not "additional costs."[70]

BellSouth and U S WEST understandably do not challenge this holding, but they do claim that under Sprint PCS' analysis, they would become eligible to recover a portion of their loop costs when they use Digital Loop Carrier ("DLC") systems instead of traditional copper loops in their feeder system.[71] These ILECs are mistaken.

DLC systems can, indeed, include "shared" facilities in some circumstances.[72] However, these shared facilities do not entail "additional costs" as defined by

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[69] *See* BellSouth at 12-13.

[70] *First Local Competition Reconsideration Order*, 11 FCC Rcd 13042, 13045 ¶ 6 (1996). *See also First Local Competition Order,* 11 FCC Rcd at 16025 ¶ 1057.

[71] *See* U S WEST at 8-12; BellSouth at 8-10.

[72] DLC systems are "an efficient means of aggregating subscriber traffic on to common transmission facilities, usually fiber, for transmission from a remote terminal to the central office, rather than dedicating a separate transmission facility (*e.g.,* a copper loop) for each subscriber's traffic

the reciprocal compensation statute. As the Commission has noted, LECs sometimes use DLC systems "to reduce the cost of serving subscribers" because such systems can be cheaper to purchase and maintain than the use of separate copper wires for each customer.[73]

If BellSouth and U S WEST believe that the Commission erred in prohibiting ILECs from recovering their loop costs when they use DLC systems in their feeder plant, they should file their own petition with the Commission. The issue raised by Sprint PCS' request is whether, consistent with Section 252(d) of the Act, CMRS providers may recover all their traffic sensitive costs of call termination. Resolution of this CMRS-specific issue does not depend on the resolution of whether *different* network elements in *LEC networks* are, or are not, traffic sensitive.

2. BellSouth Is Mistaken in Asserting That the FCC Has Ruled That Carriers May Not Recover All Their Additional Call Termination Costs

BellSouth contends that Sprint PCS' analysis contains the "false premise" that the statutory term, "additional costs," is "synonymous with the economic concept of 'traffic sensitive' costs."[74] According to BellSouth, the Commission "knowingly defined

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all the way from the customer's premises to the central office. The use of DLCs varies by telephone company and typically ranges from almost zero to as much as 30 percent of the local loops within a given LEC's local network." *Ameritech/SBC Merger Order,* 14 FCC Rcd 14712, 14800 n.357 (1999).

[73] *Proposed Modifications to ARMIS 43-07 Infrastructure Report,* 13 FCC Rcd 5083, 5086 ¶ 10 (1998). LECs also sometimes use DLC systems in rural areas where the distance between the customer and the end office is considerable because in such situations DLC systems can provide better service quality than traditional copper loops.

[74] BellSouth at ii. *See also id.* at 6. Of course, this BellSouth argument is incompatible with its argument that Sprint PCS has defined "additional costs" as synonymous with "shared costs." *See* BellSouth at 13 ("The attempt by Sprint PCS to define 'additional cost' in terms of 'shared' facilities is inconsistent with the *Order* and the Commission's rules.").

the statutory term 'additional costs' more restrictively than an economic definition of 'traffic sensitive' costs":

> [T]he *Order* at ¶ 1057 expressly noted that only a "portion" of the forward-looking economic cost of end-office switching is included in the definition of the statutory term "additional cost."[75]

The Commission held in this paragraph that only the traffic sensitive "portion" of LEC switches is compensable because non-traffic sensitive costs — whether in a switch, a loop, or in other networks elements — are not "additional costs" under the statute. The Commission did *not* hold in ¶ 1057 that CMRS providers using a different technology to perform the call termination function are precluded from recovering traffic sensitive costs pertaining to network elements other than their mobile switches. Nowhere did the FCC say that some traffic sensitive costs (switches) are recoverable, while other traffic sensitive costs (base stations) are not recoverable.[76] To the contrary, on reconsideration the Commission reaffirmed that "the 'additional cost' . . . of terminating a call that originates on another network includes only the usage-sensitive costs . . . but not the non-traffic-sensitive costs."[77]

Importantly, Section 252(d) does not state that "each carrier" may recover only its "additional costs" of *switching*; it rather provides that "each carrier" may recover its "additional costs" associated with the "termination on each carrier's *network facilities*

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[75] *Id.* at 3, 6 and n.9. The Commission's discussion in ¶ 1057 obviously pertained to landline ILEC networks, not CMRS mobile networks.

[76] Indeed, such a determination would have been inconsistent with the plain commands of the statute. *See, e.g., Chevron USA* v. *Natural Resources Defense Council,* 467 U.S. 837, 842-43 (1984)(Where Congress has "directly spoken to the precise question at issue," conflicting agency action is impermissible.); *MCI* v. *AT&T,* 512 U.S. 218, 229 (1994).

[77] *First Local Competition Reconsideration Order,* 11 FCC Rcd 13042, 13045 ¶ 6 (1996). BellSouth misstates the record when it asserts that Sprint PCS' economists cited "no authority" in

of calls that originate on the network facilities of the other carrier."[78] Clearly, the statutory phrase "network facilities" encompasses mobile switching centers *and* other CMRS network elements, such as base station controllers and base station transceivers.

BellSouth further claims that the authors of the CRA White Paper hold "the misguided notion that all costs are 'traffic sensitive; in the long run":

> [W]hile all costs may be avoidable or controllable in the long run . . . , this phenomenon does not make such costs volume sensitive or traffic sensitive.[79]

The CRA White Paper does not define additional costs to be those costs that are traffic sensitive "in the long run." Rather, the Paper seeks to identify whether an increase in usage, holding the number of lines (or active PCS handsets) constant, will lead to an increase in the provider's costs.[80] When resources are held in a common pool and made available on a call-by-call basis, increases in usage (holding the number of lines or handsets constant) will result in degraded service unless capacity is augmented.[81] The elements of capacity that must be augmented to accommodate increased usage (holding the number of lines or handsets constant) are the elements whose costs are considered "additional."

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support of the proposition that traffic sensitive costs other than switching are also recoverable. *Compare* BellSouth at 6 n.9 *with* CRA White Paper at 11 n.24.

[78] 47 U.S.C. § 252(d)(2)(A)(emphasis added).

[79] BellSouth at 6-7.

[80] *See, e.g.*, CRA White Paper at 13-15.

[81] It is for this reason that BellSouth's "teenager" example fails. *See* BellSouth at 8. Every network provider must add network capacity in order to serve additional lines (fixed) or additional handsets (mobile), but this is not relevant to the TELRIC methodology. The FCC's TELIRC model assumes that the number of lines in an area is constant. The CRA White Paper applies these same principles to its PCS network: the number of handsets is taken as fixed, and the effect of increased traffic (given the number of handsets) on the required investment in the remaining network components is analyzed.

3. U S WEST Fails to Recognize that Increases in Total Traffic Commonly Entail Increases in Busy-Hour Traffic

U S WEST asserts that the economic analysis contained in the CRA White Paper is an "about-face" of a previous analysis by one of the paper's authors.[82] In fact, there is no "about-face."

In a 1996 paper, CRA economists, Steven Brenner and Bridger Mitchell, distinguished between increases in traffic that required additions to network capacity (generally, peak-hour traffic) and other increases in traffic, and found that "[t]he costs of shared network facilities used to terminate interconnected traffic are fundamentally costs of increasing capacity, and only additional traffic that requires increases in capacity imposes a cost."[83] The FCC later recognized this very point in its *Local Competition Order*:

> [T]he cost of capacity is determined by the volume of traffic that the facilities are able to handle during the peak load periods . . . . [O]ff-peak traffic imposes relatively little additional cost because it does not require any incremental capacity to be added to the base plant . . . .[84]

Nevertheless, and largely for practical considerations, the FCC decided "neither [to] require nor forbid states from adopting rates that reflect peak and off-peak costs."[85] and that for purposes of reciprocal compensation under section 252(d)(2), "only that portion of the

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[82] U S WEST at 16.

[83] Steven R. Brenner and Bridger M. Mitchell, "Economic Issues in the Choice of Compensation Arrangements for Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers," at 24, March 4, 1996, submitted as an attachment to CTIA Comments, Docket 95-185 (March 4, 1996).

[84] *First Local Competition Order,* 11 FCC Rcd at 15878 ¶ 755.

[85] Id., at ¶ 1064.

forward-looking, economic cost . . . that is recovered on a usage-sensitive basis constitutes an 'additional cost' to be recovered through termination charges."[86]

When the costs of capacity needed to serve the total CMRS network traffic over a 24-hour period are calculated they will include the capacity required to serve the busy-hour traffic. For a given traffic profile, increases in total traffic entail increases in busy-hour traffic. As the CRA White Paper found, "in the long run added minutes of calling handled by a network switch or trunk require that the capacity of that resource be increased in order to maintain service quality for other users. Thus, the costs incurred by the network supplier for a shared resource increase when the volume of calling increases."[87]

The 1996 Brenner and Mitchell analysis is thus fully consistent with the FCC's TELRIC methodology and the CRA White Paper based on that methodology, which require that forward-looking costs be evaluated for the *total* quantity of an element required to provide the specified services.

C. Cell Sites Entail Additional Costs That Sprint PCS May Recoup in Reciprocal Compensation Rates

Section 252(d) authorizes Sprint PCS to recover its "additional costs" associated with "the transport and termination on [its] network facilities of calls that originate on the network facilities of the other carrier."[88] The Commission has held that the "additional cost" to terminate a call originating on another network "includes only the

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[86] *Id.* at 16025 ¶ 1057. *See also First Local Competition Reconsideration Order,* 11 FCC Rcd at 13045 ¶ 6.

[87] CRA White Paper at 11.

[88] 47 U.S.C. § 252(d)(2)(A)(i) and (ii).

usage-sensitive costs . . . but not the non-traffic-sensitive costs."[89] The costs of Sprint PCS' cell sites, including structures, antennas, and base station equipment, are recoverable "additional costs" because these network components are used in call termination *and* because these component costs are traffic sensitive — that is, Sprint PCS' cell site investments vary in proportion to the amount of network traffic (holding the number of active PCS handsets constant).

None of the four parties opposing Sprint PCS' request challenges its demonstration that its investments in cell sites entail traffic sensitive costs. Specifically, no one has challenged Sprint PCS' showing that the capacity of its base station equipment is limited and that when the volume of traffic increases (not the number of subscribers), the installed capacity of the equipment will exhaust and additional traffic will be blocked. Furthermore, no one has challenged Sprint PCS' showing that cell-splitting and the construction of additional cell sites can, in some normal circumstances, be the low-cost method of augmenting capacity.

The capacity of each radio carrier is limited. Currently, in the Sprint PCS network, each radio carrier can support approximately 14 voice channels (or customer calls) per sector. Thus, if Sprint PCS were to install equipment for only one radio carrier at a cell site with three sectors (the standard configuration), it would exhaust the capacity of the base station equipment once the volume of traffic during the peak period at the site exceeds 42 calls. (For capacity purposes, it makes no difference whether the PCS customer originates or receives a call.) Depending upon the conditions, the least cost method of augmenting capacity could be to add a second carrier or to split the cell site.

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[89] *First Local Competition Reconsideration Order,* 11 FCC Rcd at 13045 ¶ 6.

Cell sites (including structures, antennas and base station equipment) are therefore traffic sensitive and includable in a forward-looking economic cost analysis of the additional costs of terminating calls on a PCS network.

Sprint PCS is not asking the Commission to determine whether Sprint PCS has built an efficiently configured network or whether it has used a forward looking methodology in its cost studies. A state commission can make those assessments. Sprint PCS is asking, however, that the Commission determine that the traffic sensitive portion of its network, including mobile switching centers, cell sites, and spectrum, are properly included in such a cost study. Accordingly, to remove ambiguity for the states, the Commission should affirm that investment in cell sites is an "additional cost" that a CMRS provider is entitled to recover through its reciprocal compensation rates.

D. Spectrum Constitutes an Additional Cost That Sprint PCS May Recoup in Reciprocal Compensation Rates

Of the 14 commenters, only BellSouth and U S WEST challenge Sprint PCS' conclusion that radio spectrum is an "additional cost" within the ambit of Section 252(d). U S WEST states that spectrum is not traffic sensitive because "the amount [Sprint PCS] paid for its wireless licenses does not change when the marginal customer speaks for an additional minute."[92] BellSouth states that spectrum is not traffic sensitive

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[90] BellSouth Reply Comments, WT Docket No. 99-168 (March 17, 2000)(700 MHz proceeding).

[91] BellSouth Petition for Waiver and Expedited Action, DA 00-145, at 4 (Feb. 17, 2000)(C block re-auction. *See also id.* at 3 ("The [re-auction] represents one of the most facile ways to relieve BellSouth of the current and future negative impact that the existing spectrum capacity restraints impose on it."); at 5 ("Clearly, the C and F Block auctions offer . . . potential relief from Bell-South's existing capacity problems.").

[92] U S WEST at 15.

because Sprint PCS must purchase spectrum "[i]n order for [it] to offer customers the opportunity to place and receive calls":

> For both the landline and CMRS provider, these [loop and spectrum] investments must be made even if customers were only offered the option to use the network for emergency purposes.[93]

Sprint PCS does need radio spectrum in order to provide any mobile service and the price it pays for its initial block of spectrum is indeed fixed. However, investments that may be necessary to provide emergency access services are not excluded from the Commission's forward-looking economic cost methodology, as BellSouth suggests.[94] For example, a LEC must purchase at least one end office switch to provide service "only for emergency services." That does not mean the switch is not traffic sensitive. The single end office switch still constitutes an additional cost of termination.

As applied to ILEC networks, the FCC approach is based on the "scorched node" assumption. The cost analysis compares the cost of an efficiently configured network that can supply the relevant output increment to the cost of a "scorched node" baseline in which no facilities are in place, but the locations of the incumbent's wire centers are taken as given. In this comparison, the baseline network is a network with no facilities, not the minimal set of facilities required to give customers the opportunity to make and receive calls.

Sprint PCS utilizes the most spectrally efficient air interface available today, Code Division Multiple Access ("CDMA"). Under some conditions, it is more efficient to add an additional radio carrier to an existing cell site than it is to build a new cell

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[93] BellSouth at 9.

[94] *See id.* at 9.

site.[95] Thus, the question faced by the CMRS operator needing to add system capacity is whether in a given market, it is more economical (a) to acquire additional spectrum and install additional radio carriers on existing cell sites, or (b) construct numerous new cell sites. When considered in this light, it is clear that spectrum, like investment in cell sites, *is* traffic sensitive.[96]

Indeed, as BellSouth told the Commission only months ago, it has been "looking at a variety of ways to obtain additional spectrum to alleviate network congestion."[97] BellSouth has stated that it has "existing capacity problems today in some of its most competitive areas despite its continuing and significant investments in new infrastructure, addition of digital capacity, employment of sophisticated cell-splitting and other spectrum maximization techniques."[98] The record establishes that cell sites are traffic sensitive network components.

To remove ambiguity for the states, the Commission should promptly reaffirm that a CMRS provider may recover in reciprocal compensation all the traffic sensitive costs of network components used in call termination, including upon adequate demonstration the forward-looking cost of unencumbered spectrum.

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[95] A new cell site requires engineering design to identify potential sites; time needed to find a potential lessor; obtaining all necessary local and federal approvals (including NEPA and NHPA) once a lessor is found; purchasing and installing new equipment; constructing any stealth buildings that local zoning authorities may require; and testing. A radio carrier can be added in a few days. The construction of a new cell site can take up to two years.

[96] In some conditions, adding a new cell site is not feasible.

[97] BellSouth Reply Comments, WT Docket No. 99-168 (March 17, 2000)(700 MHz proceeding).

[98] BellSouth Petition for Waiver and Expedited Action, DA 00-145, at 4 (Feb. 17, 2000)(C block re-auction. *See also id.* at 3 ("The [re-auction] represents one of the most facile ways to relieve BellSouth of the current and future negative impact that the existing spectrum capacity restraints impose on it."); at 5 ("Clearly, the C and F Block auctions offer . . . potential relief from BellSouth's existing capacity problems.").

V. Conclusion

The law is clear: "each carrier" is entitled to receive in reciprocal compensation its "additional costs" of call termination, and the Commission has defined "additional costs" to include the traffic sensitive costs of network elements used in call termination. The oppositions submitted by AT&T, BellSouth, USTA, and U S WEST — which take the position that FCC Rule 51.771(b) permitting cost-based compensation actually precludes cost-based compensation — confirms the need for the very additional FCC guidance that Sprint PCS seeks. The record evidence further confirms that state would welcome additional guidance concerning how they should apply the FCC rules to different and complex CMRS networks. Based on the history of LEC/CMRS interconnection disputes, without FCC guidance this issue will be re-litigated in state commissions and federal courts for years to come.

Respectfully submitted,

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