

# Commissioner Briefing Paper

## Intercarrier Compensation and the Missoula Plan

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### EXECUTIVE SUMMARY

Intercarrier compensation — the payments telecommunications carriers make to each other for the costs of starting and ending telephone calls — is today a Byzantine, unfair concatenation cobbled together out of outdated policy rationales. Compensation between carriers differs by type of carrier and type of service, even though there may be no significant differences in underlying costs for originating and terminating voice traffic.

After several previous steps towards reform of intercarrier compensation, in 2001, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking (NPRM) to consider major reform of the system. In 2005, the FCC issued a Further Notice of Proposed Rulemaking to refine the issue. NARUC established an Intercarrier Compensation Task Force (ICTF) to consider the issue.

NARUC's ICTF worked with relevant stakeholders to come up with a new, unified intercarrier compensation regime. The stakeholder group reached an agreement called the Missoula Plan (the Plan), which was filed with the FCC by NARUC's ICTF on July 24, 2006.

The Missoula Plan establishes one rate schedule for intercarrier charges for most telephone lines and, where it cannot do that, brings rates closer together. It allows carriers to recover lost revenues through an increased subscriber line charge (SLC) and a new Restructure Mechanism, which would operate much like the current federal universal support mechanisms. It addresses interconnection as well, laying out detailed rules. The Missoula Plan will have an impact on universal service in rural areas, interconnection agreements, intrastate access charges, the growth of competition, and retail rates.

This briefing paper reviews basic definitions, provides a brief history of access charge reform and intercarrier compensation problems over the past ten years, briefly explains the provisions of the Plan, and identifies areas that might be of concern to state commissions as they consider the Plan. The purpose of this briefing paper is to make the issue and proposals for reform of intercarrier compensation accessible to non-specialists.

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## EXECUTIVE SUMMARY

Intercarrier compensation — the payments telecommunications carriers make to each other for the costs of starting and ending telephone calls — is today a Byzantine, unfair concatenation cobbled together out of outdated policy rationales. Compensation between carriers differs by type of carrier and type of service, even though there may be no significant differences in underlying costs for originating and terminating voice traffic. Companies that cause costs to networks do not necessarily pay those costs. Companies have been inventive in gaming the system, using arbitrage to artificially change how their costs are charged at the expense of others. The broken system is harmful to retail customers, who end up with inaccurate price signals and thus cannot make intelligent choices among carriers.

After several previous steps towards reform of intercarrier compensation, in 2001, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking (NPRM) to consider major reform of the system. That NPRM resulted in a number of proposals and position statements. In 2005, the FCC issued a Further Notice of Proposed Rulemaking to refine the issue. NARUC established an Intercarrier Compensation Task Force (ICTF) to consider the issue.

NARUC's ICTF worked with relevant stakeholders to come up with a new, unified intercarrier compensation regime. The stakeholder group reached an agreement called the Missoula Plan (the Plan), which was filed with the FCC by NARUC's ICTF on July 24, 2006.

The Missoula Plan is an ambitious, comprehensive step forward, that establishes one rate schedule for intercarrier charges for most telephone lines and, where it cannot do that, brings rates closer together. It tailors intercarrier compensation reform to three distinct types of companies. To support the policy of universal service but make subsidies fair and transparent, it allows carriers to recover lost revenues through an increased subscriber line charge (SLC) and a new Restructure Mechanism, which would operate much like the current federal universal support mechanisms. Because intercarrier compensation is founded on the ability of networks to interconnect on fair terms, the plan addresses interconnection as well, laying out detailed rules.

State regulators need to familiarize themselves with the issues addressed by the Missoula Plan because it will have an impact on universal service in rural areas, interconnection agreements, intrastate access charges, the growth of competition, and retail rates. This briefing paper is an introduction to intercarrier compensation and the Missoula Plan for regulatory commissioners who need to become familiar with the proposal and its origins in order to make decisions on implementation of the Plan in their states.

The paper reviews basic definitions, provides a brief history of access charge reform and intercarrier compensation problems over the past ten years, briefly explains the provisions of the Plan, and identifies areas that might be of concern to state commissions as they consider the Plan. The purpose of this briefing paper is to make

the issue and proposals for reform of intercarrier compensation accessible to non-specialists.

The Missoula Plan:

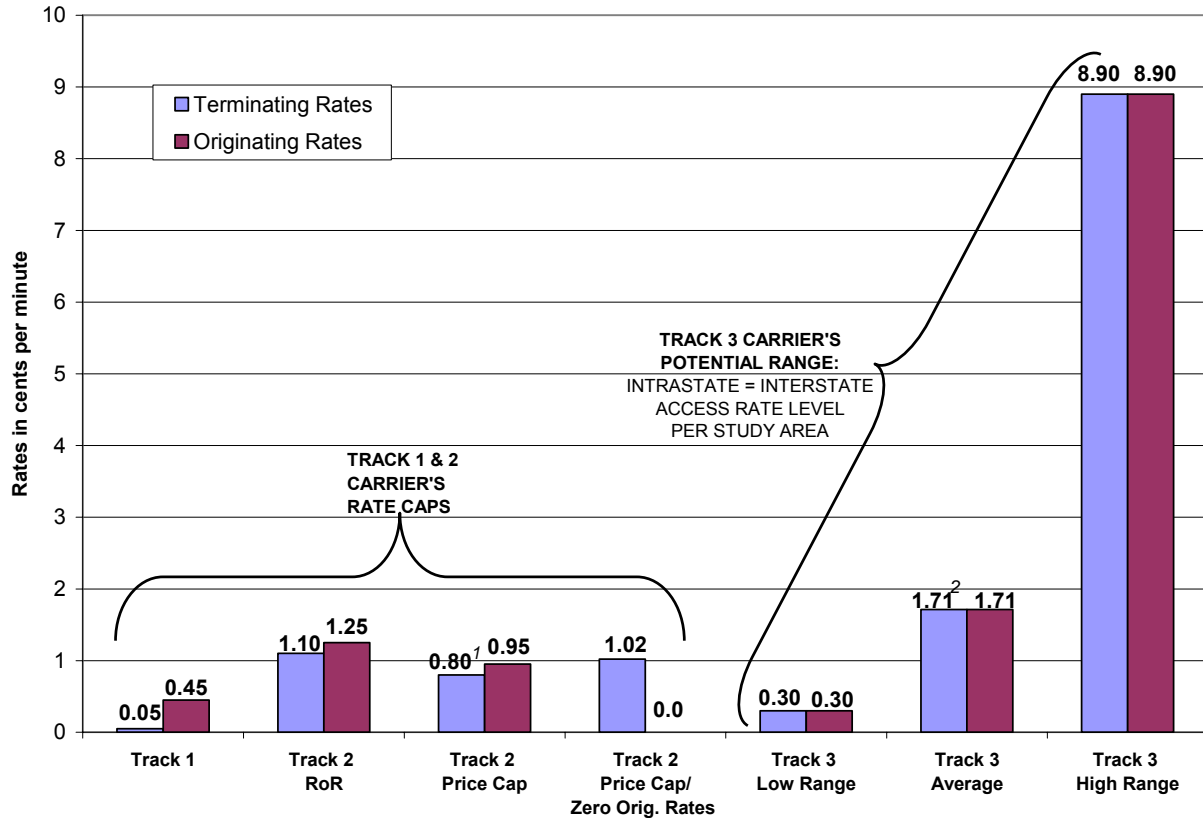
- Establishes default rules for interconnection agreements and intercarrier compensation that address some concerns with the current framework, including compensation for VoIP-PSTN traffic and traffic exchanged with wireless carriers.
- Establishes a transition period for the gradual unification of intercarrier compensation charges for most carriers. It reduces and unifies most terminating intercarrier charges and either eliminates or reduces originating charges.
- Classifies carriers' study areas into three different categories or Tracks, providing carriers in each Track rights and obligations under various aspects of the Plan.
  - Track 1 covers 92 ILEC study areas and 146.2 million ILEC loops of all Regional Bell Operating Companies (RBOCs), CLECs, wireless providers and other non-rural carriers.
  - Track 2 covers the lines of most mid-sized rural carriers (12.5 million ILEC loops) and 158 ILEC study areas.
  - Track 3 includes all the Covered Rural Telephone Company (CRTC) study areas not under Track 2, that is, roughly the lines of the smallest, rate-of-return-regulated rural carriers, covering approximately 1,185 study areas (7.3 million ILEC loops).
- Provides carriers under each of the Tracks different schedules and options to achieve rate reductions. The resulting caps for originating and terminating charges are illustrated in Figure ES1. This Figure shows the caps for Track 1 and 2 carriers and the potential ranges and average access rates for Track 3 carriers.
  - Track 1 The Plan reduces Track 1 carriers' termination rates in four Steps, when they would reach the ultimate unified termination rate of \$0.0005. All terminating rates for non-access traffic would remain unchanged.
  - Track 2 The Plan reduces the carriers' terminating and originating access charges to an ultimate rate level declared by each carrier prior to the beginning of the Plan. By the end of the Plan's transition period, carriers' rates may not be higher than the caps included in Table ES1.
  - Track 3 The Plan unifies each carrier's interstate and intrastate originating and terminating access rates in four Steps, moving intrastate access rates to the interstate level. The unified access charge level will be used as a cap for reciprocal compensation rates. The Plan does not modify existing arrangements for EAS traffic.

**TABLE ES 1**  
**CAPS FOR ORIGINATING AND TERMINATING ACCESS CHARGES FOR TRACK 1, 2 AND 3 CARRIERS UNDER THE MISSOULA PLAN**

TYPE OF CARRIER	CAP FOR TERMINATING RATES		CAP FOR ORIGINATING RATES	
	Starting at Step 4		Starting at Step 4	
TRACK 1	Tandem switching & common transport	\$0.0005	Tandem switching & common transport	≤ \$0.0025
	End office switching		End office switching	≤ \$0.002
	Starting at Step 3		Starting at Step 4	
Track 2 rate-of-return carriers	Tandem switching & common transport	≤ \$0.0105	Tandem switching & common transport	≤ \$0.0105
	End office switching	≤ \$0.0005	End office switching	≤ \$0.002
Track 2 price cap carriers and carriers electing incentive regulation	Tandem switching & common transport	≤ \$0.0075	Tandem switching & common transport	≤ \$0.0075
	End office switching	≤ \$0.0005	End office switching	≤ \$0.002
Track 2 price cap or incentive regulation carriers choosing to reduce <i>originating</i> rates to \$0	Tandem switching & common transport	≤ \$0.0097	Tandem switching & common transport	\$0
	End office switching	≤ \$0.0005	End office switching	\$0
TRACK 3	Starting at Step 4		Starting at Step 4	
	Terminating access charges	Interstate access rate level	Originating access charges	Interstate access rate level

Source: Authors' construct from *Missoula Plan*, July 18, 2006.

- Proposes increasing SLCs in order to replace a portion of decreased access revenues. As access rates decrease, carriers may raise their SLCs, subject to certain constraints. The maximum residential and single-line business SLC cap for Track 1 carriers is \$10.00 and \$8.75 for Tracks 2 and 3 at the end of the transition period. Provisions were made to increase Lifeline support to offset SLC increases.
- Provides a Restructure Mechanism (RM) in order to replace a portion of decreased access revenues. The size of the RM is estimated to be \$1.5 billion at Step 4. Though not specified in the Plan, the RM is likely to be funded similarly to the Universal Service mechanism. The Plan also provides for some modification to existing universal service support mechanisms.
- Establishes an Early Adopter Fund to compensate states that have already rebalanced their intrastate access charges and provide incentives for the states to adopt the Plan in full.
- Outlines some provisions for the establishment of interconnection agreements.



Notes: 1. Assumes end office switching rate of 0.05¢ and 0.75¢ for common transport and tandem switching. 2. Compensation for EAS traffic remains under existing arrangements. Reciprocal compensation rates for 251(b)(5) traffic capped at interstate access rate levels. Access traffic capped at interstate access rate levels.

Source: Authors' construct from the *Missoula Plan*, July 18, 2006 and J. Lubin, *The Missoula Plan for Inter-carrier Compensation Reform*. Presentation at the NARUC Summer Committee Meeting, August 2006.

**Fig. ES 1.** Caps for originating and terminating access charges for Track 1, 2 and 3 carriers under the Missoula Plan.

- If adopted by the FCC, most of the provisions of the Plan would become mandatory. States would have some discretion about participating in some features of the Plan. However, to ensure a unified national framework, the Plan proposes that, if necessary, the FCC could preempt state authority over intrastate access charges.
- Proposes a number-based approach for determining the proper categorization of traffic and sets rules for carrier to provide signaling information, thus reducing phantom traffic and arbitrage problems.

The Missoula Plan is complex and represents a major shift in policy that will impact providers and consumers in all areas of the country. If the Missoula Plan or something similar to it is adopted, many problems associated with the current system will be addressed. However, there are issues state commissions may want to consider in preparing their responses to the Plan. The Plan asks the FCC to preempt states that do not adopt the Plan with respect to intrastate access charges.

The Plan's supporters believe that it will provide significant benefits to consumers in the form of lower bills in many instances, but there may be reason to be cautious about the size of the benefits for many residential wireline subscribers. What is certain is that, if adopted, the Plan will shift the way carriers recover their network costs. The shift will be in the direction of both more direct recovery from their end users via SLC increases and more indirect recovery from end users in general via the Restructure Mechanism.

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## FOREWORD

Intercarrier compensation is a major issue for carriers and for regulators. Intercarrier compensation represents both costs and revenues to carriers, and it affects consumers both through retail rates and the competitive alternatives available to them. Reforming a complicated and sometimes confusing system of intercarrier compensation that has evolved over time is no small task. Stakeholders may differ as to what should be done, but something must be done, since there is little faith that the current system is sustainable going forward. Recently, a collaborative process resulted in the Missoula Plan, which proposes major reform of intercarrier compensation. The Missoula Plan was developed by an industry group working under the auspices of NARUC's Intercarrier Compensation Task Force, which held stakeholder workshops and facilitated the discussion. This paper is intended to provide initial context to state commission discussions of intercarrier compensation, generally, and the Missoula Plan, particularly. We hope commissioners and staff will find it informative and useful.

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## CHAPTER 1

### CONTEXT OF THE MISSOULA PLAN

#### Introduction

Intercarrier compensation, the payments telecommunications carriers make to each other for the costs of starting and ending telephone calls, is today a Byzantine, unfair concatenation, cobbled together out of outdated policy rationales. Regulations on compensation between carriers differ by the type of carrier and the type of service, even though there may be no significant differences in underlying costs for originating and terminating voice traffic. Many observers believe the system is broken and will become more so as more voice traffic originates or terminates on wireless or Internet Protocol (IP) networks.

This broken system hurts competition because the same company that incurs a cost to the network does not necessarily pay for it. Companies have been inventive in their methods of gaming the system, using arbitrage to artificially change how their costs are charged at the expense of others. The broken system is harmful to retail customers, who end up with inaccurate price signals and thus cannot make intelligent choices among carriers.

After taking several previous steps to reform intercarrier compensation, in 2001, the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking (NPRM)<sup>1</sup> to consider major reform of the system. That NPRM resulted in a number of proposals and position statements. In 2005, the FCC issued a Further Notice of Proposed Rulemaking (FNPRM) to refine the issue. NARUC established an Intercarrier Compensation Task Force to consider the issue.

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<sup>1</sup> FCC 01-132, *Notice of Proposed Rulemaking*, released April 27, 2001  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-01-132A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-01-132A1.pdf), paras. 132-135.

The Missoula Plan is far from simple – any intercarrier compensation regime will necessarily be a thorny thicket to the uninitiated. State regulators need to familiarize themselves with the issues addressed by the Missoula Plan because it will have an impact on universal service in rural areas, interconnection agreements, intrastate access charges, the growth of competition, and retail rates. This briefing paper is an introduction to intercarrier compensation and the Missoula Plan for regulatory commissioners who need to become familiar with the proposal and its origins in order to make decisions on implementation of the Plan in their states.

The purpose of this briefing paper is to make the issue and proposals for reform of intercarrier compensation accessible to non-specialists. It reviews basic definitions, provides a brief history of access charge reform and intercarrier compensation problems over the past ten years, briefly explains the highlights of the Plan, and identifies areas that might be of concern to state commissions as they consider the Plan.

## **Inter-carrier Compensation**

Inter-carrier compensation addresses the question of who should pay the costs of originating, transporting, and terminating calls or traffic that begins on one network and ends on another network, often crossing or transiting a third network. The networks exchanging traffic could be local exchange carriers (LECs), long-distance or interexchange carriers (IXCs), or wireless carriers providing commercial mobile radio services (CMRS). Inter-carrier compensation includes reciprocal compensation (payments made for terminating local traffic) and access charges (charges paid for originating or terminating long-distance traffic). Though it might appear to be esoteric, inter-carrier compensation is important both as a cost item for paying carriers and as a revenue item for receiving carriers. There are various measures of the size of inter-carrier compensation that put it at approximately \$10 billion per year.<sup>2</sup>

There are two basic answers to the question of who pays. For terminating costs, the answer that has been given historically, termed calling party's network pays (CPNP), requires the calling party's carrier<sup>3</sup> to compensate the called party's carrier for the cost of terminating or delivering that call. This approach relies, at least implicitly, on the assumption that the calling party benefits from the call and causes costs to be incurred.<sup>4</sup> An alternative approach, termed bill and keep (BAK), requires carriers to absorb all of the costs of their own network and recover them from their subscribers through retail

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<sup>2</sup> NARUC has estimated them at about \$10 billion. See *Testimony of Commissioner Ray Baum*, U.S. Senate Commerce, Science, and Transportation Committee, Hearing on Rural Telecommunications, March 7, 2006.

<sup>3</sup> The calling party initiates the call, so it originates on the calling party's local carrier's network.

<sup>4</sup> With respect to long-distance calls, the calling party's IXC pays both an *originating* access charge to the calling party's LEC and a *terminating* access charge to the called party's LEC. Though payment of an originating access charge to the calling party's LEC might not appear to be a consistent application of the CPNP rule, it is consistent if the calling party's IXC is thought of as the calling party's network in this case.



rates. This approach is based on the assumption that *both* parties on a call benefit from it, so costs of a call should be shared between the parties' networks.<sup>5</sup>

## Reciprocal Compensation

Reciprocal compensation issues arise when local traffic is exchanged between local exchange carriers.<sup>6</sup> Reciprocal compensation is a result of local competition.<sup>7</sup> The concept of reciprocity is consistent with the notion that all LECs, whether incumbent local exchange carriers (ILECs) or competitive local exchange carriers (CLECs) have the same relationship with their customers in providing local telephone service.

The Telecommunications Act of 1996 (the 1996 Act or the Telecommunications Act) imposes on all LECs the duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications.<sup>8</sup> The 1996 Act also provides that both ILECs and entrants or CLECs have the duty to negotiate reciprocal compensation arrangements in good faith.<sup>9</sup>

Moreover, ILECs are required to allow interconnection and exchange of traffic at any technically feasible point within their networks, and they must provide interconnection at least equal in quality to that provided to itself or to any subsidiary, affiliate, or any other party to which the carrier provides interconnection. Finally, rates for interconnection services must be just, reasonable, and nondiscriminatory.<sup>10</sup>

### *Federal Jurisdiction*

The FCC has national authority for implementation of the Telecommunications Act. However, the FCC cannot preempt state policies regarding interconnection obligations provided that state policy is not inconsistent with or does not substantially prevent implementation of the Telecommunications Act.<sup>11</sup>

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<sup>5</sup> Often, the choice of who should pay, and how much, for a service comes down to an analysis of who benefits from the service (an application of the benefits-received principle) and who is responsible for the costs associated with delivering the service (an application of the cost-causation principle). In part, the choice between CPNP and BAK depends on how benefits-received and cost-causation are viewed. DeGraba (2003) argued that both called and calling parties benefit from the call, so they should share in its costs. He proposed "meet-point" BAK, or MBAK, in which carriers would be responsible for getting traffic to and from the physical "meet points" at which traffic is exchanged between networks. Because both called and calling parties benefit from the call, they should share in its costs.

<sup>6</sup> The term LEC applies to both ILECs and CLECs.

<sup>7</sup> Before there was local competition, neighboring LECs might agree on arrangements for exchanging traffic under extended area service (EAS) agreements. Such agreements might require the originating LEC to pay the terminating LEC if there was an imbalance in traffic.

<sup>8</sup> 47 U.S.C. 251(b)(5).

<sup>9</sup> 47 U.S.C. 251(c)(1).

<sup>10</sup> 47 U.S.C. 251(c)(3).

<sup>11</sup> 47 U.S.C. 251(d)(3).

### *State Jurisdiction*

Reciprocal compensation includes the charges for transport and termination of local traffic. As such, it falls under state jurisdiction. ILECs must comply with the provisions of the Telecommunications Act, but state commissions have authority to ensure that reciprocal compensation arrangements are at rates and on terms that are just, reasonable, and nondiscriminatory. The arrangements must provide for mutual and reciprocal recovery by each carrier of costs associated with the transport and termination of calls originating on other carriers' networks. In addition, reciprocal compensation arrangements should be based on reasonable approximations of the costs associated with terminating calls from other networks.<sup>12</sup>

### **Access Charges**

End users use LEC loops, switches, and transport facilities to reach their IXC, and IXCs use the same facilities to deliver calls from those customers. At present, LECs recover part of their loop, switching, and transport costs from IXCs via access charges. The manner in which access charges are assessed, their level, and the proportion of the LEC costs they recover have evolved over time.

### *Jurisdiction*

The FCC has jurisdiction over interstate access charges, and the states have jurisdiction over intrastate access charges. To date, the FCC has not attempted to assert jurisdiction over intrastate access charges.

### *History of Access Charges*

In 1984, AT&T spun off its Bell Operating Companies (BOCs) into seven regional holding companies under a consent decree with the Department of Justice.<sup>13</sup> Until then, AT&T controlled about three-fourths of local telephone service, four-fifths of interstate access minutes, and nine-tenths of interstate revenues.<sup>14</sup> AT&T compensated BOCs for providing access to their customers through an internal process of revenue sharing or transfer payments.<sup>15</sup>

Revenue sharing reduced the BOCs' local revenue requirement, helped keep local rates low, and improved subscribership. However, this system resulted in long-distance rates

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<sup>12</sup> 47 U.S.C. 252(d)(2).

<sup>13</sup> The consent decree was the Modification of Final Judgment or MFJ. See *U.S. v. AT&T, Modification of Final Judgment*, 552 F. Supp. 131 (D.D.C. 1982), cited in Weinhaus and Oettinger, 1988, p. 1, n. 2. Under the MFJ, twenty BOCs were consolidated into seven Regional Bell Holding Companies (sometimes called RBOCs).

<sup>14</sup> See Zolnierk, Rangos, and Eisner, 1999, Tables 1.1 and 3.2.

<sup>15</sup> Non-BOC LECs (the independent companies) were compensated through a contractual settlements process. See Weinhaus and Oettinger, 1988, pp. 66-69.

that were well above costs. Rates above costs reduced long-distance usage, created incentives for large users of long distance to bypass the public switched network, and led to the creation of competitive access providers (CAPs). Moreover, the system of revenue sharing was not sustainable in a competitive long-distance market.<sup>16</sup>

The current system of access charges began in 1983 when the FCC adopted a system of explicit access charges, which IXCs and other toll providers would pay to LECs for use of their networks. This system became operational in 1984.<sup>17</sup> The new system reduced the contribution that had been flowing from long-distance use to local service and established a uniform method for IXCs to compensate LECs for origination, switching, transport, and termination of interstate calls.<sup>18</sup> Most if not all states also established intrastate access charge regimes. In addition to per-minute access charges paid by IXCs, end users were assessed monthly, per-line SLCs to recover a portion of the fixed costs of local loops.

Under the new system, the price of long-distance service fell, and the volume of long-distance calling surged. Average revenue per minute for interstate calls fell from 30 cents in 1984, to 17 cents in 1990, to 12 cents in 1995, and to 7 cents in 2003.<sup>19</sup> Thus, average interstate revenue per minute fell by 77 percent in nominal terms during a period in which the consumer price index increased by 77 percent.

In 1984, interstate minutes of use were less than 160 billion; by 2000, they were nearly 567 billion. After 2000, however, interstate minutes of use decreased dramatically, falling to 422 billion in 2004, a reduction of over 25 percent,<sup>20</sup> much of which may be

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<sup>16</sup> A major focus of the antitrust complaint that led to divestiture was to improve competition in long-distance markets. Until then AT&T was alleged to be using the BOCs to impair the ability of competitive long-distance carriers such as MCI and Sprint to access the BOCs local networks to originate and terminate calls.

<sup>17</sup> This system put AT&T on the same footing with respect to paying access charges as its long-distance competitors such as MCI and Sprint, provided that they received equivalent access to local customers.

<sup>18</sup> The FCC's rules regarding access charges may be found in Part 69 of the FCC's Rules (47 C.F.R. 69). These rules detail which expense or cost items may be attributed to originating and terminating access for interstate and international calls. Many costs incurred by LECs have significant joint and common components in the sense that they cannot be directly attributed to specific services. Rather, they are incurred to deliver a range of services. Such costs include the cost of the telephone loop, which is used for local calls, toll calls, and possibly for information services (DSL lines). Local switches and transport facilities also carry various types of traffic, and general corporate overhead costs are spread over all services. Part 32 of the FCC's rules (47 C.F.R. 32) describes the uniform system of accounts for telephone companies; part 36 of the FCC's rules (47 C.F.R. 36) describes the process of jurisdictional separations of costs, revenues, and expenses between intrastate and interstate jurisdictions; part 64 of the FCC's rules (47 C.F.R. 64) describes the rules for dividing the costs, expenses, and revenues of regulated from unregulated activities.

<sup>19</sup> Average revenue is not, strictly speaking, a direct measure of the per-minute price paid by any particular customer for any particular call; however, it does indicate the general downward direction of interstate per-minute rates.

<sup>20</sup> See FCC, *Trends in Telephone Service* (released June 21, 2005), Tables 10.1 and 13.4. Available at: [http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/IAD/trend605.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend605.pdf)

attributed to the explosion in wireless subscribership and usage.<sup>21</sup> Total domestic toll revenues showed a similar pattern. They were \$47.4 billion in 1984 (\$20.9 billion intrastate and \$26.5 billion interstate), peaked at \$88.1 billion in 1999 (\$33.6 billion intrastate and \$54.5 billion interstate), and fell to \$56.4 billion ((\$21.7 billion intrastate and \$34.7 billion interstate) in 2004.<sup>22</sup>

### *Statutory Standards for Access Charges*

The Telecommunications Act of 1996 requires LECs to apply equal access and nondiscrimination standards when they provide exchange access, information access, and exchange services for such access to IXCs and information service providers (ISPs).<sup>23</sup>

As necessary, the FCC may require carriers to establish physical connections with other carriers for the purpose of carrying traffic originating on those carriers' networks (or delivered to them by those carriers' networks). Furthermore, they must establish routes and charges applicable to traffic originating on or delivered by other networks, and the charges for carrying this traffic must be just and reasonable.<sup>24</sup>

### *Rate Averaging Provisions and Access Charges*

Although different LECs may have different access charges (specifically, rural LECs may have higher charges), IXCs cannot pass those differences on to their customers. The Telecommunications Act specifies that rates charged by IXCs to subscribers in rural and high cost areas shall be no higher than the rates charged to subscribers in urban areas. Moreover, a provider of interstate interexchange services may not charge customers in one state rates that are higher than the rates charged customers in any other state.<sup>25</sup>

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<sup>21</sup> Though not strictly comparable with minutes of use data, the *number* of intraLATA calls peaked at 23.8 billion in 1995 and fell to 11.9 billion by 2003. Much of that decline may be attributed to the expansion of local calling areas and the growth of extended area service (EAS). The number of Intrastate interLATA calls grew from 11.8 billion in 1988 to 30.6 billion in 2000 and fell to 26 billion in 2003. See *Ibid.*, Table 10.2.

<sup>22</sup> Domestic toll revenues include both intrastate and interstate toll revenues but exclude international toll revenues. See Lande and Lynch, 2004, 2005, 2006, Table 7, and FCC, *Statistics of the Long Distance Telecommunications Industry*, Industry Analysis & Technology Division, Wireline Competition Bureau, May 2003, Table 2. Available at: [http://www.fcc.gov/Bureaus/OPP/working\\_papers/oppwp33.pdf](http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp33.pdf)

<sup>23</sup> 47 U.S.C. 251(g).

<sup>24</sup> 47 U.S.C. 201.

<sup>25</sup> 47 U.S.C. 254(g).

## The FCC's Access Charge Reforms

### *1997 – Access Charge Restructuring*

In 1997, the FCC began a program of interstate access charge reform.<sup>26</sup> LECs had recovered part of their non-traffic-sensitive or fixed costs from IXCs via a per-minute common carrier line charge (CCLC)<sup>27</sup> and part from end users via the SLC. In 1997, the FCC eliminated the CCLC and created a presubscribed interexchange carrier charge (PICC)<sup>28</sup> for LECs to recover a portion of fixed costs from IXCs on a per-line basis more reflective of the way costs are incurred. IXCs could recover the PICC from end users as they saw fit. Eliminating the CCLC lowered effective per-minute access charges.

### *2000 – The CALLS Plan<sup>29</sup>*

In 2000, the FCC adopted a plan advanced by the Coalition for Affordable Local and Long Distance Service (CALLS).<sup>30</sup> At the time of its adoption, the FCC estimated that the CALLS Plan would reduce interstate access revenues by \$3.2 billion per year. This reduction in interstate access charges (and ultimately revenues) was part of the FCC's implementation of the Telecommunications Act of 1996, which required shifting universal service support from implicit to explicit mechanisms. Moving access charges towards cost was consistent with that mandate, since above-cost interstate access charges were one form of implicit subsidies.

In return for having their access charges reduced, major long-distance companies agreed to pass the savings on to consumers and eliminate monthly minimum usage charges. Customers who made heavy use of the interstate network would benefit from lower per-minute charges, and customers with low usage would benefit from elimination of minimum charges. However, significant questions arose about whether and how these "pass-throughs" actually occurred.

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<sup>26</sup> See FCC 97-158, *First Report & Order* CC Docket Nos. 96-262, 94-1, 91-213, 95-72, released May 16, 1997. Available at: [http://www.fcc.gov/Bureaus/Common\\_Carrier/Orders/1997/access/fcc97158.html](http://www.fcc.gov/Bureaus/Common_Carrier/Orders/1997/access/fcc97158.html)

<sup>27</sup> The CCLC was a per-minute charge on interstate calls that recovered part of the 25 percent of subscriber plant (loop and switch) costs allocated to the interstate jurisdiction.

<sup>28</sup> The PICC was a fee paid to a LEC by the IXC which had been designated as the customer's interstate long-distance service provider. It was intended to support part of the LEC's cost of providing the customer's local loop.

<sup>29</sup> See FCC 00-193, *Sixth Report and Order* in CC Docket Nos. 96-262 and 94-1, *Report and Order* in CC Docket No. 99-249, *Eleventh Report and Order* in CC Docket No. 96-45 (CALLS Order), released May 31, 2000.

<sup>30</sup> CALLS coalition members included three RBOCs (Bell Atlantic, BellSouth, SBC), two large IXCs (AT&T and Sprint), and GTE.

In addition, the PICC and the federal SLC were consolidated, and the SLC was raised to offset some of the lost interstate access revenues.<sup>31</sup> To preserve universal service support in high-cost areas, approximately \$650 million of revenue previously coming from interstate access charges was replaced by an additional assessment on interstate revenues, and the Interstate Access Support (IAS) mechanism was created.<sup>32</sup> Thus, some revenues or cost recovery previously flowing from per-minute access charges was shifted to flat-rate recovery (via the SLC increase) and to a percentage surcharge on interstate and international bills (via increases in universal service support under the IAS mechanism).

### *2001 – The MAG Plan*<sup>33</sup>

The CALLS Plan reformed interstate access charges for large and mid-sized ILECs. In 2001, the FCC adopted the Multi-Association Group (MAG) Plan to apply similar reform to interstate access charges for rural ILECs, most of which were under rate-of-return regulation rather than price caps.<sup>34</sup>

The MAG Plan restructured and reduced interstate originating and terminating rates IXCs paid to rural ILECs. Under the MAG Plan, originating and terminating interstate access charges IXCs paid to rural ILECs were reduced from an approximate average of 4.6 cents per minute to an average of 2.2 cents per minute of interstate usage.<sup>35</sup> As was the case with the CALLS Plan, the MAG Plan provided for an increase in the interstate SLC for rural ILECs.

Specifically, the MAG Plan raised the cap on the federal SLC for customers of rural ILECs to the levels that were being paid by customers of the large ILECs under the CALLS Plan, which had been adopted a year earlier.<sup>36</sup> In addition, the MAG Plan

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<sup>31</sup> The federal SLC had been capped at \$3.50 per month for residential lines. Under the CALLS Plan, the cap was raised to \$6.50 per month in several steps. The multi-line business SLC was capped at \$9.20. Federal per-line Lifeline support was also raised for qualified customers to offset the SLC increases.

<sup>32</sup> The Universal Service Administrative Company (USAC) reported that Interstate Access Support totaled \$691 million nationally in 2005. See USAC. *2005 Annual Report*, p. 39.

<sup>33</sup> See FCC 01-304, *Second Report and Order and Further Notice of Proposed Rulemaking* in CC Docket No. 00-256, *Fifteenth Report and Order* in CC Docket No. 96-45, and *Report and Order* in CC Docket Nos. 98-77 and 98-166 (MAG Order), released November 8, 2001.

<sup>34</sup> The MAG included the National Rural Telecom Association (NRTA), the National Telephone Cooperative Association (NTCA), the Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO), and the United States Telecom Association (USTA).

<sup>35</sup> The common carrier line charge (CCL or CCLC) was eliminated. The CCLC had been criticized for being inefficient, because the per-minute charge did not reflect the fixed nature of loop and switching costs. The CCLC was considered inefficient because using being a usage-based charge to collect a largely fixed cost raised per-minute call rates, discouraged the use of long-distance service, and reduced consumer welfare.

<sup>36</sup> Federal per-line Lifeline support was also raised for qualified customers of affected rural ILECs to offset the increases in the SLC.



created the Interstate Common Line Support (ICLS) mechanism to provide an additional universal service support mechanism to rural LECs. This mechanism replaced some of the implicit subsidy that previously had been built into interstate access charges and that would not be recovered through the increased SLC.<sup>37</sup>

### *Access Charge Reform and Universal Service Support*

Access charge reform and Universal Service support are inextricably linked. The 1996 Act called for implicit universal service subsidies to be eliminated, and at least some of the difference between interstate access charges and cost might be considered to be a form of implicit subsidy. Part of the process of reforming access charges included making explicit previously implicit universal service support.<sup>38</sup> Some portion of LEC revenues previously collected by access charges was shifted into the increased federal SLC. As noted above, some portion of high-cost LECs' revenue requirement is recovered through federal Universal Service support, which currently relies on a percentage surcharge on interstate and international revenues.

If a unified—with essentially level interstate and intrastate access charges and reciprocal compensation—intercarrier compensation system is adopted, it is likely that the federal SLC will rise, and federal Universal Service support will expand to make up some lost access revenues. Moreover, if intrastate access rates are lowered, states that have not, as yet, rebalanced may find it necessary to create or enlarge a state universal service fund (USF). Expansion of federal and state Universal Service support will raise consumers' local service bills as surcharges and/or line charges are increased.

As noted above, the IAS and ICLS high-cost support mechanisms were created as a result of the CALLS and MAG Plans, respectively. As access charges were moved towards cost, the SLC was raised to replace part of the revenues lost. In addition, the IAS mechanism for large ILECs and the ICLS mechanism for small ILECs replaced lost access revenues not recovered by SLC increases.

IAS support is per-line, portable, and available on a competitively neutral basis to any ETC serving a supported customer, regardless of the technology used. In 2005, the Universal Service Administrative Company (USAC) reported that Interstate Access Support totaled \$691 million.<sup>39</sup> ICLS support goes to rate-of-return carriers. In 2005,

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<sup>37</sup> In 2005, the Universal Service Administrative Company (USAC) reported that Interstate Common Line Support (ICLS) totaled \$1.178 billion. However, this total includes the Long-Term Support (LTS) mechanism, which was folded into ICLS in 2005. For 2004, USAC reported that LTS was \$275 million and ICLS was \$727 million. See USAC, *2005 Annual Report*, p. 39 and FCC, *2005 Monitoring Report*, Table 3.1.

<sup>38</sup> Not all of the decrease in per-minute access charges can be considered to be removal of implicit subsidies. Access charges provided for recovery of many legitimate costs identified in the Part 69 process described above. The reduction in per-minute access charges changed the manner in which those legitimate access costs were recovered.

<sup>39</sup> See Universal Service Company, *2005 Annual Report*, p. 39. Available at: <http://www.universalservice.org/res/documents/about/pdf/annual-report-2005.pdf>

USAC reported that Interstate Common Line Support totaled \$1.178 billion.<sup>40</sup> In 2004, IAS and ICLS support accounted for approximately 40 percent of total federal high-cost support.<sup>41</sup>

In addition, some states have rebalanced rates, generally lowering intrastate access charges (sometimes mirroring interstate charges), raising local rates, and creating state universal service funding mechanisms funded through surcharges on bills or by per-line charges.

### *Impact of Access Charge Reform*

As a result of these access charge reforms, average interstate access charges per minute declined from over 17 cents in 1984 to about 1.5 cents in 2005, as illustrated in Figure 1.<sup>42</sup> Over the same period, the SLC went from zero to a national average of \$5.92 per month for primary residential lines.<sup>43</sup> Moreover, as access charges fell, so did end user rates for interstate calls. As noted above and shown in Figure 2, this led to an explosion in interstate minutes of use from 1984 until 2000. Consumers' long-distance bills generally decreased, but their local bills (including SLCs) increased, and universal service surcharges also increased.

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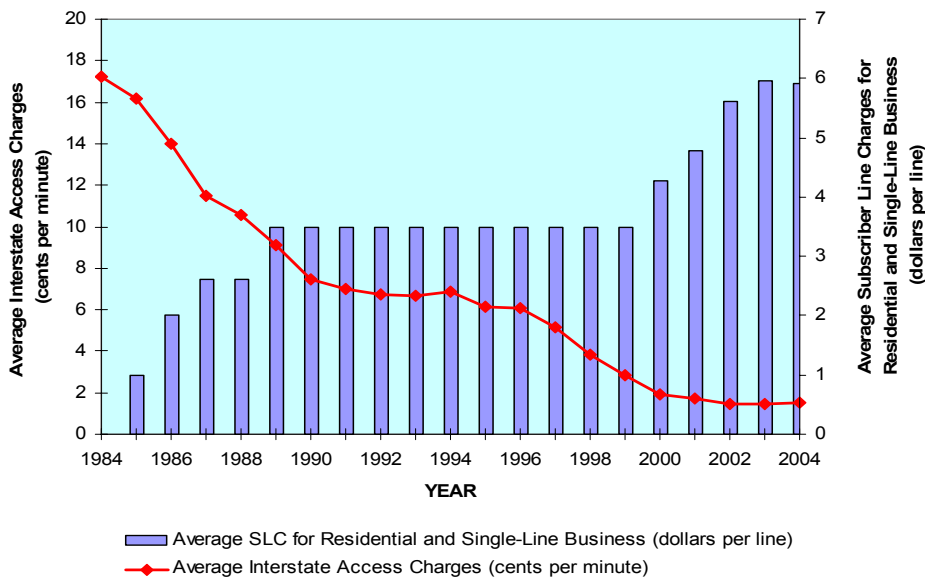
<sup>40</sup> Ibid. The 2005 data for ICLS includes the previously separate Long-Term Support (LTS). In 2004, LTS and ICLS were \$275 and \$727 million, respectively. See FCC, *Universal Service Monitoring Report*, December 2005, Table 3.1. Available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-262986A2.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-262986A2.pdf)

<sup>41</sup> Ibid. Total federal high-cost support was \$3.488 billion in 2004; IAS and ICLS totaled \$1.369 billion or 39.25 percent of the total.

<sup>42</sup> This average number conceals considerable variation. Total access charges for large ILECs average about 1.4 cents per minute, but smaller companies participating in the National Exchange Carriers Association (NECA) pool average over 4 cents per minute. See FCC, *Trends in Telephone Service (Tables Compiled as of April 2005)*, Table 1.4.

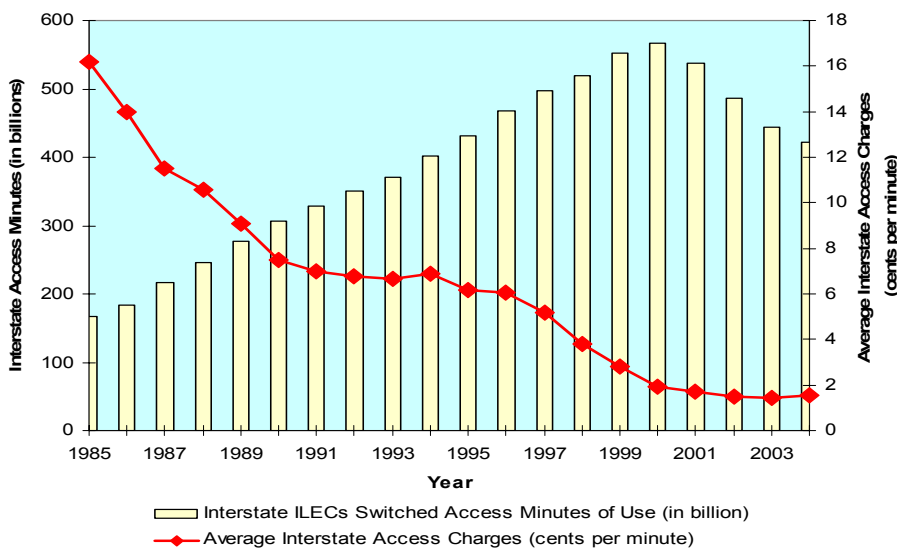
<sup>43</sup> Ibid., Table 1.1.





Source: Data from FCC, *Trends in Telephone Service (Tables Compiled as of April 2005)*, Table 1.1 and 1.2. Data points indicate national average interstate access charges in effect as of July 1 of each year.

**Fig. 1.** Average interstate access charges and average SLCs 1984-2004.



Source: Average interstate access minutes are from Federal and State Joint Board on Universal Service, *2005 Universal Service Monitoring Report*, Table 8.1. Average interstate access charges are from FCC, *Trends in Telephone Service (Tables Compiled as of April 2005)*, Table 1.2. Data points indicate national average interstate access charges in effect as of July 1 of each year.

**Fig. 2.** Average interstate access charges and interstate access minutes 1985-2004.

## The FCC's 2001 ICC NPRM<sup>44</sup>

In its 2001 NPRM, the FCC announced that it was undertaking “a fundamental re-examination of all currently regulated forms of intercarrier compensation.”<sup>45</sup> This included both reciprocal compensation and access charges.<sup>46</sup> The FCC noted that the existing intercarrier compensation regime applies different sets of rules to different types of carriers and to different types of traffic. The disparity across and within various types of intercarrier compensation is illustrated in Figure 3.

Separate sets of rules apply to local and long-distance traffic. Reciprocal compensation rules apply to the exchange of local traffic between LECs. Access rules apply to traffic exchanged between LECs and IXCs. Both sets of rules are “calling-party’s-network-pays” (CPNP) arrangements, which require the calling party’s network to pay the called party’s network to terminate a call. In addition, access rules allow the calling party’s LEC to collect an originating charge from the calling party’s IXC.

Both sets of rules are subject to exceptions, including the exemption of enhanced service providers (ESPs) or internet service providers (ISPs) from paying access charges. The FCC sought a simplified and unified structure that would apply to all traffic and all carriers.

### Difficulties and Problems with the Existing System

The *NPRM* was motivated by a number of perceived problems with the existing system of intercarrier compensation. In general, the existing system was thought to be overly complex, prone to regulatory arbitrage, subject to terminating access monopolies, and it may distort retail pricing structures.

#### *Complexity*

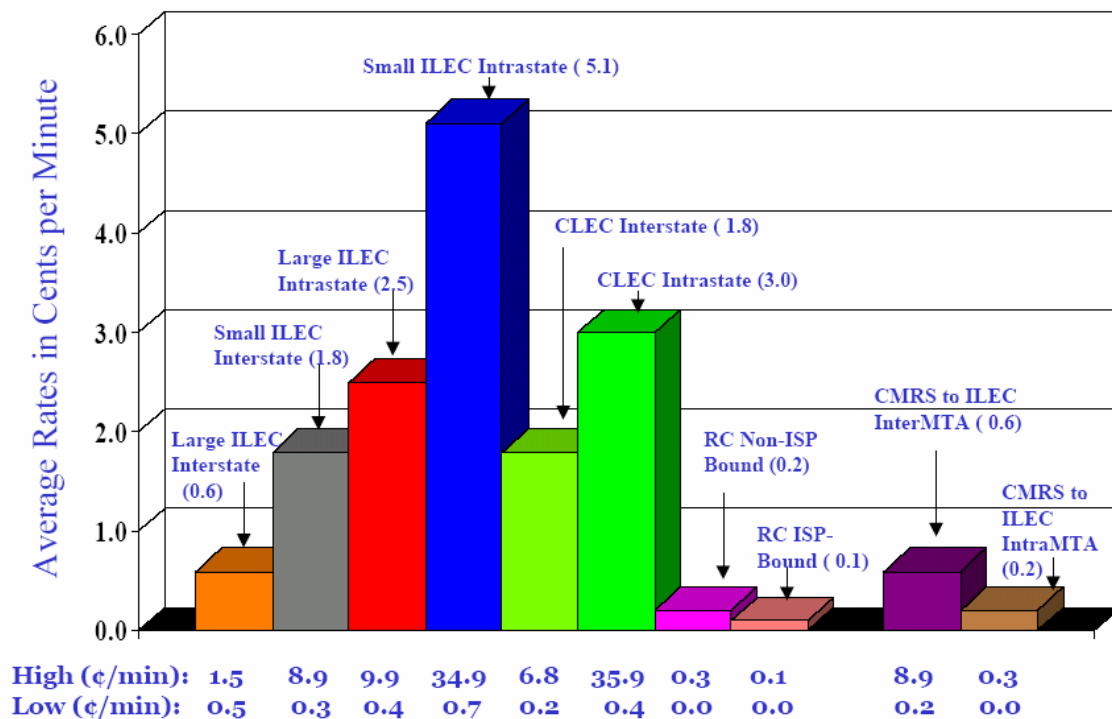
Different types of carriers and different types of services are given different treatment even though there may be no significant differences in the costs. Treatment depends on whether the interconnecting party is another LEC, an IXC, a CMRS carrier, or an ESP and whether the service is classified as local or long-distance, interstate or intrastate, telecommunications or data. Differences in treatment (and intercarrier compensation obligations) create regulatory arbitrage.

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<sup>44</sup> FCC 01-132, *Notice of Proposed Rulemaking*, released April 27, 2001  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-01-132A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-01-132A1.pdf), paras. 132-135.

<sup>45</sup> *Ibid.*, para. 1.

<sup>46</sup> The FCC did not propose, however, to review rules governing CLEC-to-CLEC, IXC-to-IXC, CMRS-to-CMRS or CMRS-to-IXC arrangements. *Ibid.*, n. 2.



Source: *Comments of the Inter-carrier Compensation Forum* in CC Docket No. 01-92, Filed May 23, 2005, Appendix E, p. 2.

**Fig. 3.** Intercarrier compensation rates.

### *Susceptibility to Regulatory Arbitrage or Strategic Behavior*

Regulatory arbitrage is strategic profit-seeking behavior in which parties revise or rearrange transactions to exploit differences in regulatory treatment and prices. Current ICC rules apply different rates to various service providers for the same or similar network functions. Reciprocal compensation charges are generally lower than access charges. Interstate access charges are often lower than intrastate charges. Each of these disparities may provide incentives to mislabel or misidentify traffic or to make one kind of traffic appear to be another.

**"Leaky PBXs"** Some large end users with leased lines connecting multiple Private Branch Exchanges (PBXs) in multiple locations let long-distance calls "leak" into the local network from their PBXs. Thus, some calls that would have been subject to access charges had they arrived at the LEC switch via an IXC network were terminated as if they were local calls, without incurring access charges.<sup>47</sup>

<sup>47</sup> In 1983, the FCC imposed a \$25 per month charge on each trunk that was capable of leaking traffic into the public switched network.

Phantom Traffic More recently, the multiplicity of networks carrying various types of traffic has led to an increase in “phantom traffic,” which transits a network or arrives at a LEC switch without complete identification for billing purposes.<sup>48</sup> Some phantom traffic may not be intended to obtain favorable intercarrier compensation treatment, but some may be deliberately misidentified or unidentified. This may be done in an attempt to pay a local reciprocal compensation rate for long-distance traffic or an interstate access rate for intrastate traffic.<sup>49</sup>

VoIP and Virtual FXs In some cases, Voice over Internet Protocol (VoIP) traffic is exempt from the access charges that traditional long-distance carriers must pay. Thus, the growth of VoIP usage threatens LEC access revenues.<sup>50</sup> In fact, the level of access charges may be one factor in the growth of VoIP: VoIP providers can offer more attractive rates than conventional IXCs, making VoIP attractive to relatively heavy long-distance users. The growth of VoIP usage threatens both access revenues and universal service support. Recently, the FCC established universal service contribution obligations for providers of interconnected VoIP service. Affected VoIP providers were given an interim safe harbor that would treat 64.9 percent of their revenues as interstate and international, making them subject to the universal service surcharge.<sup>51</sup> In addition, VoIP providers offer their customers the option of obtaining telephone numbers in area codes far removed from their actual location. These “virtual FX” codes allow someone

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<sup>48</sup> Schwartz (2005) notes that “...as much as 20 to 30 percent of terminating traffic is unbillable—a problem that is expected to get even worse with growing VoIP and wireless traffic.” Traffic transiting CLEC networks may also arrive without complete identification information.

<sup>49</sup> This could be done by an IXC routing intrastate traffic through an out-of-state switch, making it appear as interstate traffic. Nuechterlein and Weiser (2005, pp. 293-295) discuss allegations of an IXC routing interstate traffic through a CLEC to avoid access charges.

<sup>50</sup> Cheaper long-distance rates may not be the only reason for choosing VoIP. VoIP providers allow users to configure their service in ways that are not often available to conventional wireline customers.

<sup>51</sup> According to FCC’s definition, interconnected VoIP services: (1) enable real-time, two-way voice communications; (2) require a broadband connection from the user’s location; (3) require IP-compatible customer premises equipment; and (4) permit users to receive calls from and terminate calls to the Public Switched Telephone Network (PSTN). Furthermore, the FCC defined interconnected VoIP service as having the *capability* for users to receive calls from and terminate calls to the PSTN. USF contribution obligations will apply to all VoIP communications made using an interconnected VoIP service, even those that do not involve the PSTN. These obligations apply regardless of whether the interconnected VoIP provider accesses the PSTN directly or indirectly through a third party. See FCC 06-94, *Report and Order and Notice of Proposed Rulemaking* in WC Docket No. 06-122 (Universal Service Contribution Methodology), CC Docket No. 96-45 (Federal-State Joint Board on Universal Service), CC Docket No. 98-171 (1998 Biennial Regulatory Review – Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms), CC Docket No. 90-571 (Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990), CC Docket No. 92-237 & NSD File No. L-00-72 (Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size), CC Docket No. 99-200 (Number Resource Optimization), CC Docket No. 95-116 (Telephone Number Portability), CC Docket No. 98-170 (Truth-in-Billing and Billing Format), and WC Docket No. 04-36 (IP-Enabled Services), released June 27, 2006, paras. 15, 36, and 53.

in San Francisco to dial a local number (within the 415 area code) and have that call delivered to a VoIP customer located in Columbus, Ohio (within the 614 area code) without incurring a toll charge.

CLECs and ISP Traffic As an example of strategic behavior, some CLECs marketed their services to Internet service providers that tend to be net recipients of terminating traffic. Thus, the CLEC profits from reciprocal compensation charges. In addition to simply gaming the rules, some carriers may respond to incentives by mislabeling traffic to obtain favorable intercarrier compensation treatment.

Moreover, the FCC noted that the availability of termination charges (either access charges or reciprocal compensation charges) that are inefficiently structured or above-cost may create incentives for an entity that primarily or exclusively receives traffic to claim to be a network and purchase unbundled interconnection rather than subscribe as an end user.<sup>52</sup>

Regulatory arbitrage involves taking actions to minimize payments to and maximize payments from other carriers. Differences in rules or charges by type of traffic or type of carrier encourage such behavior. A unified system with fewer rate disparities would remove much of the incentive for such behavior. As Nuechterlein and Weiser (2005, p. 296) note:

Whatever their morality or legality, such arbitrage opportunities inevitably arise whenever regulators treat like services differently. No matter how hard regulators try to close the loopholes, such distinctions induce a thousand ways of cheating, and cheating creates not just market distortions but significant enforcement costs.

### *Exploitation of Terminating Access Monopolies*

Another concern arises from the monopoly power LECs have in providing terminating access for calls to their customers. End users typically subscribe to a single LEC, which has a bottleneck monopoly in terminating calls to them. CLECs might impose access charges well above ILECs' regulated charges. In that case, carriers delivering calls to a particular called party must purchase terminating access from the called party's LEC.

Additionally, excessive terminating access charges might have competitive implications. For example, if access charges exceed economic cost, ILECs that are also IXCs, or have IXC affiliates, may discriminate in favor of their own long-distance affiliates, although statutory imputation for BOCs may lessen this possibility.<sup>53</sup> This may be exacerbated by rate averaging requirements for IXCs, which are prevented from

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<sup>52</sup> FCC 01-132, para. 18. DeGraba (2000, p. 25) notes that the availability of reciprocal compensation "creates an incentive for a business that primarily receives calls to purchase a switch, self-provide dial tone, and claim to be a network in order to be able to charge termination fees for all the calls it receives."

<sup>53</sup> See 47 U.S.C. 272(e).

passing termination charges directly through to customers whose calls give rise to those high charges.

### *Distortions in Retail Rates*

Because traffic-sensitive (per-minute or per call) interconnection and termination charges become marginal costs for carriers that pay them, inefficient intercarrier compensation rules likely distort the structure and level of end user charges. Thus, they impose pressure on the calling party's carrier to flow them through to end users via traffic-sensitive retail prices. This is not inefficient if the costs are, in fact, traffic sensitive. If, however, underlying network costs are not traffic sensitive, traffic-sensitive retail rates will reduce network usage to inefficient levels.<sup>54</sup> In addition, traffic-sensitive termination charges may create incentives for carriers to charge higher prices for calls that cross networks, than for calls that remain on the calling party's network—note that some wireless networks have made “on-network” calls “free” in the sense that they do not count towards the subscriber's usage charges.<sup>55</sup>

### **Bill and Keep Proposals**

In its *NPRM*, the FCC sought comment on the existing CPNP regime and asked whether they could be reformed to address these problems. The *NPRM* also sought comment on alternative approaches to intercarrier compensation, including the possibility of adopting some form of bill and keep (BAK) for intercarrier compensation. Under BAK, each network relies mainly on its own subscribers to pay its network costs; payments between carriers for exchanging traffic would be largely eliminated.

Although BAK has some advantages,<sup>56</sup> and it would certainly simplify matters, it would have considerable effect on rural carriers, whose revenue streams are heavily dependent on access charges.<sup>57</sup> Application of bill and keep would shift more of the burden of recovering rural carriers' network costs, which are considerably higher than those of non-rural carriers, to the rural carriers' end user customers. However, unless offset by increased high-cost universal service support from state and federal sources, such a shift would be contrary to the intent of Section 254(b)(3), which requires that

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<sup>54</sup> This was one argument against the common carrier line charge.

<sup>55</sup> See FCC 01-132, para. 17.

<sup>56</sup> Nuechterlein and Weiser (2005, pp.320-324) argue that one advantage of bill and keep is that regulators would not have to be involved in setting intercarrier compensation rates or settling disputes. Moreover, they argue that customers in the aggregate would be no worse off, and might be better off, under bill and keep due to increased regulatory certainty and lower administrative costs. There would, of course, be distributional consequences, since some customers would be better off and some would be worse off. They note that a bill and keep regime would be subject to gaming and that there could still be disputes over the appropriate demarcation point between networks, but they do not see these as insurmountable problems. They view (at pp. 330-331) the objections of rural carriers to bill and keep as a more serious obstacle.

<sup>57</sup> By one estimate, rural ILECs obtain 26 percent of total revenue from access charges. See NTCA, 2004, Figure 11, p. 27.



rates in rural areas be “reasonably comparable” to rates for similar services in urban areas.<sup>58</sup>

Specifically, the *NPRM* sought comment on versions of BAK contained in two FCC staff working papers.<sup>59</sup> DeGraba proposed what he termed “Central Office Bill and Keep” (COBAK). Under COBAK, carriers do not recover costs of their customers’ local access facilities from interconnecting carriers, but the calling party’s network is responsible for the cost of transporting the call to the called party’s central office.<sup>60</sup> Atkinson and Barnekov proposed what they termed “Bill Access to Subscribers–Interconnection Cost Split” (BASICS). Under BASICS, networks recover intra-network costs from their end users, and networks divide costs that result purely from interconnection.

The *NPRM* sought comment on whether some form of BAK would encourage efficient use of, and investment in, networks, and whether BAK would be administratively feasible. The *NPRM* also sought comment on whether the BAK proposals could solve existing interconnection problems and whether BAK might create new problems.

### **2001 ISP Remand Order and 2004 CoreComm Order<sup>61</sup>**

This *Order on Remand and Report and Order* reaffirmed the FCC’s conclusion that ISP traffic is predominantly interstate access traffic and is, thus, under the FCC’s jurisdiction, preempting state commissions’ authority to determine intercarrier compensation for ISP-bound traffic. The FCC concluded that traffic bound for ISPs is “information access” that is “carved out” of the scope of section 251(b)(5) by section 251(g), which preserves certain pre-Act equal access and interconnection arrangements, including compensation obligations, and is, therefore, not subject to the reciprocal compensation requirements of section 251(b)(5).<sup>62</sup>

As in the *Inter-carrier Compensation NPRM*,<sup>63</sup> the FCC sought comment on bill and keep as a cost recovery mechanism for the exchange of ISP-bound traffic. The *ISP Remand Order* also proposed an interim recovery scheme to increase the recovery of costs from end users that capped the rate of intercarrier compensation for the delivery of ISP-bound traffic. The cap would gradually decline over a 36-month transition period (2001-2003) towards a complete BAK system, bringing rates down from \$0.0015 to \$0.0007 per minute of use (MOU). Traffic subject to reciprocal compensation would be subject

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<sup>58</sup> See 47 U.S.C. 254(b)(3). We note that considerable thought has been applied to operationalizing the meaning of “reasonably comparable” rates.

<sup>59</sup> DeGraba, 2000 and Atkinson and Barnekov, 2000.

<sup>60</sup> Transport might be purchased from the called network, owned by the calling network, or obtained from a third party.

<sup>61</sup> FCC 01-131, *Order on Remand and Report and Order* in CC Docket Nos. 96-98 and 99-68, released April 27, 2001. Available at: [http://www.fcc.gov/Bureaus/Common\\_Carrier/Orders/2001/fcc01131.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Orders/2001/fcc01131.pdf)

<sup>62</sup> *Ibid.*, paras. 44, 52.

<sup>63</sup> FCC 01-132.

to a growth cap.<sup>64</sup> Subsequently, in its 2004 *CoreComm Order*,<sup>65</sup> the FCC granted a petition to forbear from enforcing the growth caps on reciprocal compensation for ISP-bound traffic because, among other things, dial-up internet access traffic was not growing.<sup>66</sup>

### **2001 CLEC Order<sup>67</sup>**

The *Seventh Report and Order* addressed CLEC charges for interstate switched access services and the obligations of IXCs to exchange access traffic with CLECs. The FCC expressed concern about the ability of the marketplace to constrain CLEC access rates. Thus, the FCC limited application of the tariff rules to CLEC access services to prevent regulatory arbitrage opportunities. The revised tariff rules aligned tariffed CLEC's access rates with those of the ILEC operating in the CLEC's service area. By moving CLEC access tariffs to the competing ILEC rate, the FCC allowed CLECs to receive revenues equivalent to those the ILEC received from IXCs, whether expressed as per-minute or flat-rate charges.

The ILEC's switched access rate is used as a benchmark for CLEC rates: CLEC rates at or below the benchmark are presumed just and reasonable, allowing the CLEC to impose them by tariff; in contrast, the *Order* mandated that CLEC access rates above the benchmark be detariffed, requiring CLECs to negotiate higher rates with the IXCs. To set an appropriate benchmark, the *Order* proposed to re-examine the ILECs' rates at the end of the *CALLS Order* period. The detariffing regime also created a rural exemption for CLECs serving truly rural areas. The FCC also sought comment on interconnection obligations for IXCs and the ability of such carriers to refuse CLEC access service.

### **CMRS / LEC Disputes – the T-Mobile Order<sup>68</sup>**

In its *T-Mobile Order*,<sup>69</sup> the FCC adopted rules applicable to non-access telecommunications traffic exchanged between wireless carriers and LECs. The new

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<sup>64</sup> FCC 01-131, paras. 8, 86.

<sup>65</sup> FCC 04-241, *Order* in WC Docket No. 03-171. Released October 18, 2004. Available at: [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-04-241A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-241A1.pdf)

<sup>66</sup> *Ibid.*, para. 20.

<sup>67</sup> FCC 01-146, *Seventh Report and Order and Further Notice of Proposed Rulemaking* in CC Docket 96-262, released April 27, 2001.

<sup>68</sup> The following discussion draws on FCC 05-42, *Declaratory Ruling and Report and Order* in CC Docket No. 01-92 (In the Matter of Developing a Unified Intercarrier Compensation Regime T-Mobile *et al.* Petition for Declaratory Ruling Regarding Incumbent LEC Wireless Termination Tariffs), released February 24, 2005, paras. 5-16.

<sup>69</sup> See FCC 05-42, *Declaratory Ruling and Report and Order*, in CC Docket 01-92 (*Developing a Unified Intercarrier Compensation Regime, T-Mobile et al. Petition for Declaratory Ruling Regarding Incumbent LEC Wireless Termination Tariffs*), released February 24, 2005. Cf., 47 C.F.R. 20.11(d) and 20.11(e).



rules ensured that intercarrier charges for the termination of non-access traffic<sup>70</sup> may be imposed only if there is an agreement between the carriers. The rules also facilitated ILECs' ability to obtain such agreements if they desire them.

CMRS providers typically interconnect indirectly with smaller LECs via a BOC tandem switch—the CMRS provider delivers the call to the BOC tandem, which transports it to the terminating LEC. The indirect nature of the interconnection enables the CMRS provider and LEC to exchange traffic without an interconnection agreement or other compensation arrangement between the CMRS provider and the terminating LEC.

Such indirect interconnection arrangements have resulted in numerous disputes between LECs and CMRS providers as to the applicable intercarrier compensation regime. Because it originates and terminates in the same MTA, CMRS providers may argue that intraMTA traffic routed from a CMRS provider through a BOC tandem to another LEC should be subject to reciprocal compensation. However, LECs may argue that this traffic should be subject to access charges, since it originates outside the terminating LEC's local calling area, is carried by a toll provider (the BOC), and is transported to the LEC via access facilities.

The FCC could not conclude that an ILEC state tariff that imposed termination charges on wireless traffic would be unlawful under then existing rules. Thus, it denied the petition for declaratory ruling, finding that ILECs were not prohibited from filing state termination tariffs, and CMRS providers were obligated to accept the terms of applicable state tariffs. The FCC found that its reciprocal compensation rules established default rights to intercarrier compensation without precluding carriers from accepting alternative compensation arrangements. Thus, CMRS providers that route traffic to LECs without requesting to establish reciprocal or mutual compensation must accept the terms of otherwise applicable state tariffs.

## **2005 FNPRM<sup>71</sup>**

In March 2005, after receiving numerous proposals for reform of intercarrier compensation, the FCC issued a *Further Notice of Proposed Rulemaking (FNPRM)*. The *FNPRM* sought comment on reform proposals or principles submitted by the various industry and interest groups. There was considerable dispute between those in favor of some form of bill and keep, in which carriers do not pay others to terminate

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<sup>70</sup> The term “non-access traffic” means any telecommunications traffic that is not subject to access charges. Such traffic includes telecommunications traffic exchanged between a LEC and a CMRS provider that, at the beginning of the call, originates and terminates within the same Major Trading Area (MTA). See 47 C.F.R. 51.701(2). The definition of an MTA can be found at 47 C.F.R. 24.202(a).

<sup>71</sup> FCC 05-33, *Further Notice of Proposed Rulemaking* in CC Docket 01-92, released March 3, 2005. [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-05-33A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-33A1.pdf)

traffic originating on their networks, and those who think such a system would devastate local carriers, especially in rural areas, and hurt their customers.<sup>72</sup>

The FCC's goal was still to "[replace] the myriad existing intercarrier compensation regimes with a unified regime designed for a market characterized by increasing competition and new technologies."<sup>73</sup> Although the BAK was still on the table, and there was a generally favorable staff analysis of BAK attached to the *FNPRM*, the FCC did not solicit comments on BAK. Although some industry groups such as wireless carriers liked BAK, other groups, especially rural carriers, pointed out many implementation problems.

In the *FNPRM*, the FCC identified four principles for reform of intercarrier compensation:<sup>74</sup>

- (1) Create a more uniform regime that promotes efficient facilities-based competition;
- (2) Be technologically and competitively neutral;
- (3) Provide regulatory certainty and require minimal regulatory intervention and enforcement;
- (4) Maintain support for universal service.

Assuming that the FCC desires to maintain these principles, the efficacy of whatever ICC reform plan ultimately emerges must be judged as to its ability to achieve these goals. Therefore, when considering the Missoula Plan, described in Chapter 2, it is useful to see whether it is consistent with these stated goals.

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<sup>72</sup> See, for example, OPASTCO, *2005 Legislative & Regulatory Conference, Issue Update: Intercarrier Compensation*, available at: <http://www.opastco.org/docs/L&R%202005%20Intercarrier%20Comp.pdf>

A bill-and-keep approach would be devastating to rural ILECs and their customers. The small and dispersed customer bases of rural ILECs are insufficient to allow these carriers to recover their access and interconnection costs entirely from their end users. Rural ILECs have per-subscriber costs that are significantly higher than the costs of urban-based carriers and a higher percentage of those costs are presently recovered through intercarrier compensation, such as access charges. Thus, absent a sufficient support mechanism to make up the significant loss in revenue, a bill-and-keep regime could cause local rates to rise to unaffordable levels.

Therefore, it is critical that all users of a rural ILEC's network—interconnecting carriers as well as end users—pay for their use of the network. Maintaining some form of intercarrier compensation helps to maintain affordable local rates in high-cost rural areas and prevents the Universal Service Fund from becoming over-burdened and ultimately unsustainable.

<sup>73</sup> FCC 05-33, para 1.

<sup>74</sup> *Ibid.*, para. 146.

## CHAPTER 2

### HIGHLIGHTS OF THE MISSOULA PLAN

The *Missoula Plan for Intercarrier Compensation Reform* is an industry-driven proposal to reform the current intercarrier compensation framework. It is the result of a collaborative process among industry groups and other organizations that took place under the auspices of NARUC from early 2003 to July 2006, and it is conceived as a starting point towards a complete reform of intercarrier compensation. NARUC has not endorsed the Plan; the Association's role has been to facilitate the negotiations among stakeholders and promote the development of an industry plan for intercarrier compensation reform.

The Plan is sponsored by several large and mid-size companies, including AT&T, BellSouth, Cingular Wireless, Global Crossing, Level 3 Communications and Iowa Telecom, as well as by the Rural Alliance, representing 336 small rural telephone companies. The Plan was filed at the FCC by the NARUC Task Force on Intercarrier Compensation on July 24, 2006 and has since faced some opposition from other industry representatives, including the Wireless Association (CTIA) and the National Association of State Utility Consumer Advocates (NASUCA).<sup>75</sup> The FCC has requested interested parties to file comments to CC Docket 01-92, where the Plan was filed into, on or before October 25, 2006 and reply comments on or before December 11, 2006.<sup>76</sup>

This chapter provides an overview of the main proposals for reform contained in the Plan, including the intercarrier compensation framework, the interconnection agreement rules and the mechanisms created for carriers to recover revenues lost due to the proposed changes. To be brief, definitions of important terms used in the Plan are included in the Glossary in Appendix A. An analysis of the impact that the provisions of the Plan, if adopted by the FCC, would have on state commissions and consumers is provided in the following chapter, along with a summary of some of the concerns expressed so far by other members of the industry and consumer groups.

#### Implementing a Collaborative Process

In response to the FCC's 2001 *NPRM*, several industry groups developed and submitted proposals for reform (see Appendix D). These included the Intercarrier Compensation Forum (ICF), the Alliance for Rational Intercarrier Compensation (ARIC), the Expanded Portland Group (EPG), and the Cost Based Intercarrier Compensation Coalition (CBICC).<sup>77</sup> CTIA filed a less comprehensive proposal, and proposals or

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<sup>75</sup> NCTA, "Cable joins industry group in opposing the 'Missoula Group' Intercarrier Compensation filing", July 24, 2006. <http://www.ncta.com/ContentView.aspx?hiddenavlink=true&type=reltyp2&contentId=3464>

<sup>76</sup> FCC, *Comments Sought on Missoula Intercarrier Compensation Reform Plan*, Public Notice DA 06-1510, July 25, 2006. At NARUC's request, the FCC granted an extension from the original dates set for comments and reply comments. [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-06-1730A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-1730A1.pdf)

<sup>77</sup> The ICF represented various industry segments. Members included AT&T, GCI, Global Crossing, Iowa Telecommunications Services, Level 3 Communications, MCI, SBC, Sprint, and Valor. ARIC and EPG

position papers were filed by NASUCA, the National Telephone Cooperative Association (NTCA), the NARUC ICTF, and by individual companies.

Among the principles included in NARUC's ICTF 2004 FCC filing<sup>78</sup> on intercarrier compensation were that the resulting plan should be comprehensive (applicable to all carriers and traffic), be economically sound (minimize arbitrage opportunities, allow recovery of appropriate costs, be competitively and technologically neutral, be simple and administratively feasible), be consistent with federalism principles and preserve a state role, and be compatible with universal service and consumer protection. In addition, NARUC's principles called for intercarrier compensation reform to allow market-based rates in competitive markets and impose regulation in non-competitive markets. NARUC's ICC Task Force also filed its own intercarrier compensation proposal.<sup>79</sup>

### *NARUC's Intercarrier Compensation Task Force Stakeholder Workshops*

In addition to developing its own principles and plan, NARUC played a valuable role in facilitating collegial discussion of a difficult and contentious issue by industry groups. In 2004, NARUC established an Intercarrier Compensation Task Force, chaired first by former Commissioner Elliot Smith of the Iowa Utilities Board and then by Commissioner Ray Baum of the Oregon Public Service Commission.<sup>80</sup> The ICTF established a process of workshops or forums, in which industry groups and other stakeholders could present their plans, critique other groups' plans, and define areas of agreement and disagreement. The goal was not to create an official NARUC policy, but rather to facilitate consensus. The process took approximately two and a half years. Many workshops were held, and the process was supported by the FCC, which has an interest in an industry consensus plan that might be broadly acceptable.

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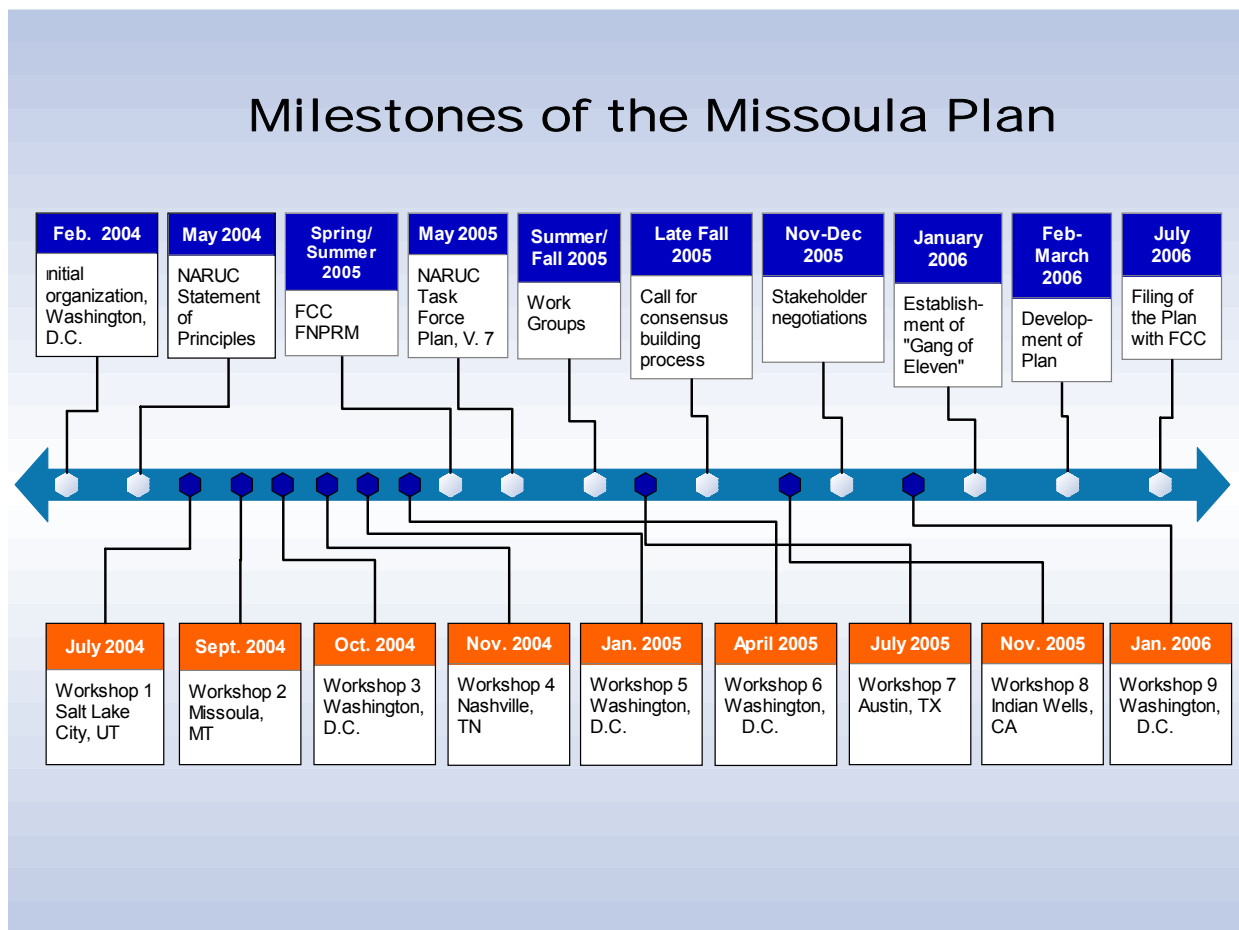
represented mainly groups of smaller, rural ILECs. These groups combined forces to become the Rural Alliance. CBICC represented CLEC interests.

<sup>78</sup> See NARUC, Study Committee On Intercarrier Compensation, *Goals For A New Intercarrier Compensation System*, May 5, 2004. Available at: [http://www.naruc.org/associations/1773/files/intercarriercompgoals\\_whitepaper04.pdf](http://www.naruc.org/associations/1773/files/intercarriercompgoals_whitepaper04.pdf). NARUC's May 18, 2005 comments filed in response to the FNPRM also contain a restatement of NARUC's Principles. NARUC's February 2005 resolution on the Intercarrier Compensation Task Force is available at: [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6517610399](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517610399)

<sup>79</sup> NARUC ICTC, *Intercarrier Compensation Proposal Version 7*, May 17, 2005. Available at: [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6517610400](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6517610400)

<sup>80</sup> Other members of the ICTF are Commissioners Larry Landis of the Indiana Utility Regulatory Commission, Curt Stamp of the Iowa Utilities Board, Connie Murray of the Missouri Public Service Commission, Phillip Jones of the Washington Utilities and Transportation Commission, and John Burke of the Vermont Public Service Board. Ex officio members include Tony Clark of the North Dakota Public Service Commission, Chair of NARUC's Committee on Telecommunications, and Diane Munns of the Iowa Utilities Board, NARUC President.

The workshops followed a collaborative process that has been described as a renewed federalism.<sup>81</sup> At least a dozen stakeholder workshops were held in all regions of the country, as illustrated in Figure 4. Initially the stakeholder group was large, which made late-stage consensus difficult. In early 2006, ICTF Chair Ray Baum designated eleven of the most active stakeholders from large, mid-size and rural carriers, as well as one or more wireless and cable representatives and a consumer representative, to develop a proposal and bring it to the broader group. The plan was presented to the larger group, who were canvassed to determine whether sufficient support existed to move forward. Finally, the plan was “tweaked” to enlarge the “on board” group.



Source: L. Landis, *The NARUC Inter-carrier Compensation Task Force*, Presentation at the MARC 2006 Conference, Columbus, Ohio, June 17-21, 2006.

**Fig. 4.** Milestones in the development of the Missoula Plan.

<sup>81</sup> Remarks of Commissioner Larry Landis, Midwest Association of Regulatory Commissioners, Columbus, Ohio, June 21, 2006.

What resulted is a plan that a coalition of industry participants can live with. As such, it represents numerous compromises, although not a consensus, and it is not an optimum for any individual participant. However, it does simplify and unify intercarrier compensation, lowers many access charges, maintains some CPNP features for toll calls and reciprocal compensation, raises the SLC, and provides additional support for rural carriers. It does not require that all carriers have uniform charges (indeed, it divides carriers into tracks with charges depending on a carrier's classification), but all large and mid-size carriers would have equal charges, and intrastate access charges would converge to equal interstate charges. The proposal, named for the site of one of the early workshops, has become known as the Missoula Plan.

### **Purpose and Phases of the Plan**

The goal of the Missoula Plan is to create a unified intercarrier compensation structure that reduces differences in intercarrier rates for all types of traffic. The Plan would decrease the highest intercarrier rates, bringing them closer to the cost basis. The resulting unified intercarrier compensation regime would eliminate artificial distinctions between types of traffic, and hence, be technologically and competitively neutral. At the same time, the Plan also recognizes rural carriers' line costs and revenue needs. To that end, each rural carrier would reduce its intrastate access charges until they equal its current interstate access rates.

As illustrated in Figure 5, the Plan is to be implemented in six phases or Steps, each one corresponding to a calendar year from the effective date of the Plan, as determined by the FCC. The framework of rules for interconnection, intercarrier compensation, determination of applicable charges and number signaling information proposed in the Plan go into effect at Step 1. Although these are default rules,<sup>82</sup> their implementation is transitioned through several Steps, according to the carrier's classification or "Track".

As discussed below, carriers are assigned into one of three Tracks, depending on their size. During the first four Steps, carriers under each of the three Tracks would have different timelines or series of Steps to adjust their originating and terminating rates, as well as the SLC, based in the Track they are classified under. The Plan also envisions adjustments over time to a new revenue recovery mechanism, the "Restructure Mechanism" (RM), created to help carriers recover some of the revenue lost due to changes in intercarrier compensation.

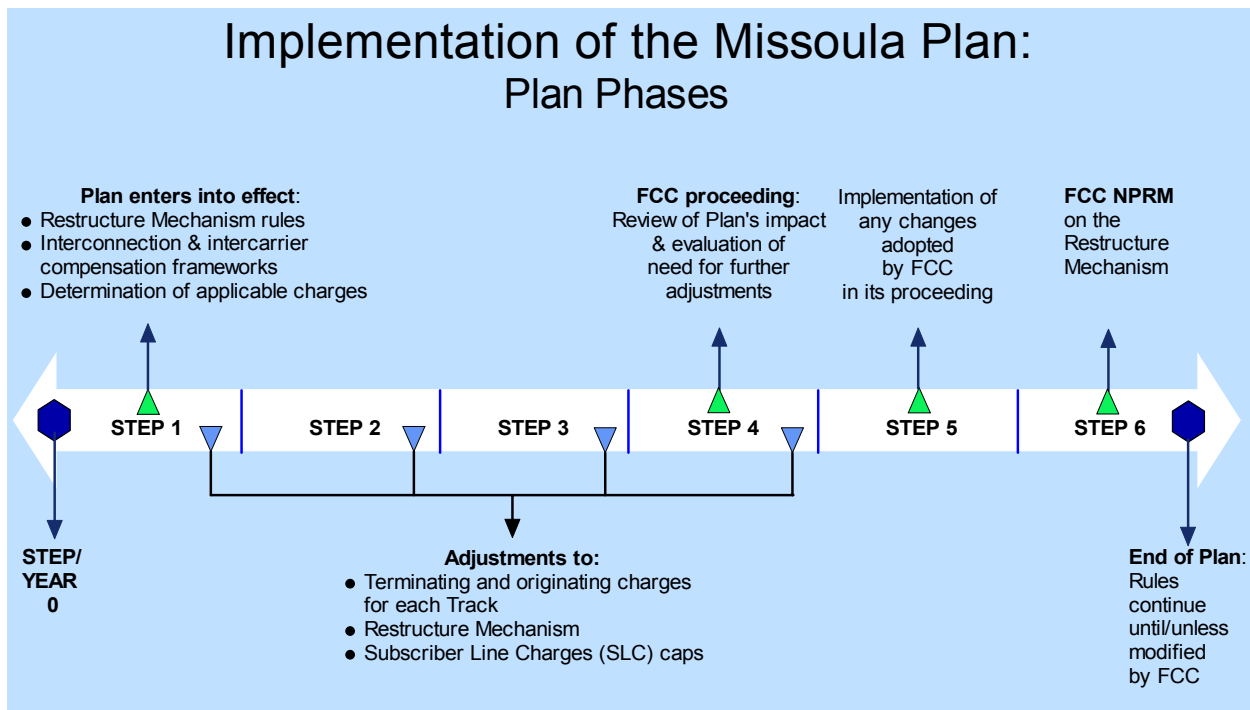
Once this initial transition period is completed by the beginning of the fourth year of the Plan, the FCC would conduct a proceeding in which it would review the results of the Plan, its impact on the industry and public interest, as well as assess the need for any adjustment to the compensation structures and target rate levels set by the Plan. The FCC proceeding would also evaluate the need to implement further changes to the structure of origination and termination charges, including whether it should be replaced

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<sup>82</sup> Carriers may agree to negotiate alternative arrangements as part of their interconnection negotiations.

by a system that recovers these charges more fully from the end user, as well as the need for carriers to transition towards a capacity-based structure.

The FCC’s evaluation proceeding would determine whether the Plan is to be extended or modified. Any changes adopted by the FCC as part of the proceeding would be implemented in Step 5, followed by a rulemaking proceeding in Step 6 that would focus on the future of the Restructure Mechanism and its interaction with the Universal Service Fund.



Source: Author’s construct based on Missoula Plan, July 18, 2006, p. 2.

**Fig. 5.** Phases of the Missoula Plan

The following sections describe in more detail the rules set by the Missoula Plan to address intercarrier compensation for different types of traffic and carrier Tracks, interconnection for non-access traffic, the mechanism for obtaining interconnection agreements, rules to eliminate the problem of phantom traffic, as well as an explanation of the mechanisms established by the Plan for recovery of intrastate and interstate revenue.



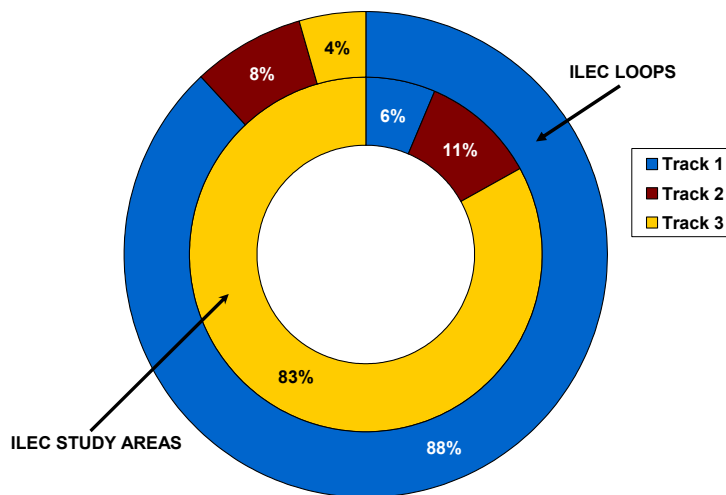
## Intercarrier Compensation Framework

The Missoula Plan classifies carrier lines into three categories, or “Tracks,” based on the size and regulatory classification of a company. Different intercarrier compensation rates and different paces of reform are proposed to suit carriers in each Track.

*Track 1 Category* covers 92 ILEC study areas and 146.2 million ILEC loops. This category includes all ILEC study areas for which the ILEC does not qualify as a Covered Rural Telephone Company (CRTC), as defined in the Plan (see Glossary), as well as all non-ILECs. It covers all Regional Bell Operating Companies (RBOCs), as well as CLECs, wireless providers and other non-rural carriers.

*Track 2 Category* covers 158 ILEC study areas and 12.5 million ILEC loops. This category covers most mid-sized rural carriers: Price cap CRTC study areas with less than one million loops; price cap or Rate-of-Return (ROR) CRTC study areas in which the ILEC does not qualify as a Rural Telephone Company in accordance to Section 3(37) of the Communications Act, 47 U.S.C. § 153(7); CRTC study areas where a carrier under ROR has chosen to move to the Plan’s incentive regulation program, as well as ROR CRTC study areas with more than ten thousand loops, provided these areas are held by a carrier or parent company that also holds price cap or non-rural study areas.

*Track 3 Category* covers approximately 1,185 study areas and 7.3 million ILEC loops of all the CRTC study areas not under Track 2, that is, roughly the lines of the smallest, rate-of-return-regulated rural carriers (see Figure 6).<sup>83</sup>



Source: Author’s construct from the *Missoula Plan*, July 18, 2006.

**Fig. 6.** Percentage rate of ILEC study areas and loops classified into Track 1, 2 or 3.

<sup>83</sup> More detailed definitions of the three Tracks and other terms used in the Missoula Plan are provided in the Glossary in Appendix A.



ILECs in Track 2 and Track 3 may elect to be designated under the conditions applicable to other Tracks in selected study areas. Track 2 carriers may opt to be designated as a Track 1 carrier, and Track 3 carriers may opt for the conditions applicable to Tracks 1 or Track 2 carriers. However, the election of a higher Track's conditions is irrevocable.

Moreover, every CRTC study area under rate-of-return regulation for interstate operations will have an annual option to participate in the incentive regulation program set up in the Plan. The move to incentive regulation can be reversed only by a waiver from the FCC and results in the immediate designation of the study area as a Track 2 area. In the study areas under the incentive regulation program carriers will be allowed to base their revenues on *per-line* formulas, instead of on the cost-based revenue formulas used under rate-of-return regulation. Also, if the permitted revenue per line is not covered completely through the rates established in the Plan, the carrier will be permitted to recover the difference from a per-line Restructure Mechanism support.

#### *Phase Down and Unification of Intercarrier Charges*

The Plan's compensation framework seeks to unify intercarrier compensation rates for Track 1 and 2, and reduce the level of interstate switched access charges for Track 3. Under Track 1 and 2, terminating rates, i.e., rates for tandem switching, transport, and end office switching, will converge into a single rate schedule for all traffic; originating access rates will be reduced over time or, in some cases, eliminated altogether. Under Track 3, each carrier's intrastate access charges will be reduced in four Steps to the level of its interstate access charges. Reciprocal compensation rates will be capped at interstate access levels, although they remain subject to existing rules and negotiated interconnection agreements.

Track 1 The goal of the Plan is to reduce Track 1 carriers' termination rates in four Steps, when they would reach the ultimate unified termination rate of \$0.0005,<sup>84</sup> as illustrated in Figure 7. All terminating rates for non-access traffic would remain unchanged.<sup>85</sup>

The Plan gives Track 1 carriers flexibility to declare before the beginning of the Plan, at Step 0, the ultimate level their usage-sensitive originating access rates would be for each study area at Step 4. Yet, the Plan sets a cap for these rates so that they cannot exceed a charge of \$0.002 for end office switching and of \$0.0025 for common transport and tandem switching. This transition would take place in two Steps

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<sup>84</sup> All rates are expressed in terms of minutes of use (MOU), unless otherwise noted.

<sup>85</sup> During the transition to Step 3, carriers will continue to pay only for the end office switching, common transport, and tandem switching functions performed by the terminating carrier, despite the terminological change in the definition of termination rates, which during this period will include rates for "transport and termination" of non-access traffic.

RATE PHASE DOWN AND UNIFICATION OF INTERCARRIER COMPENSATION					
TRACK 1 CARRIER	STEP 0	STEP 1	STEP 2	STEP 3	STEP 4
Reduction of intra & interstate usage-sensitive terminating access rates		1/3 difference between Step 0 & Step 3 rates	Same reduction	Unified termination rate (\$0.0007)	Ultimate unified termination rate (\$0.0005)
Unification of usage-sensitive terminating charges for all traffic					
Reduction of intrastate dedicated transport rates towards carrier's interstate dedicated transport rates		1/3 difference between Step 0 & Step 3 rates	Same reduction	Intrastate dedicated transport @ carrier's interstate rate	Intrastate dedicated transport @ carrier's interstate rate
Reduction of dedicated transport rates between terminating carriers' Edge and end office		1/3 difference between Step 0 & Step 3 rates	Same reduction	Dedicated transport rate = Zero	
Usage-sensitive originating access rates per study area	Carrier declares at Step 0 the rate level to be reached at end of transition (between 0 and rate cap)			Rate reduction, if threshold NOT met (75% reduction in total access charge)	Originating rates @ Step 0 declared level Intrastate originating rates = interstate level

A carrier's declared originating access rates cannot be higher than \$0.002 for end office switching or higher than \$0.0025 for common transport and tandem switching.

= Indicates a milestone in the phase-down process.

Source: Author's construct from *Missoula Plan*, July 18, 2006.

**Fig. 7.** Phase-down of intercarrier charges for Track 1 carriers.

beginning at Step 3 of the Plan. Once a carrier has declared its ultimate originating access rates it may not increase them thereafter.

The level of reductions in originating access charges that a Track 1 carrier must make under the Plan depends on two related variables:

- (1) The cumulative *terminating* access charge reductions made by the carrier in Steps 1 through 3 of the Plan, and
- (2) The percentage that such cumulative terminating access charge reductions represent of the *total* access charge reductions that the Track 1 carrier expects to make between Step 0 and Step 4 of the Plan.

In each of the first four Steps, the Plan requires Track 1 carriers to reduce their *total* access charges by at least 25 percent of the total reductions they expect to make. As a result, Track 1 carriers must reach at least 25 percent of their *total* expected access reductions in Step 1, at least 50 percent in Step 2, and at least 75 percent in Step 3. A carrier is *not* required to make any reductions to its *originating* access charges if it has implemented cumulative reductions to its *terminating* access charges that represent at least 75 percent of the *total* access charge reductions it expects to make through Step 4.

Similarly, a Track 1 carrier that has not achieved this 75 percent reduction threshold in *total* access charges under the Plan is required to meet the threshold through decreases in its carrier loop charges *and/or* proportionate reductions to *all* of the following originating access charges: usage-sensitive and flat-rated carrier loop charges, end office switching, common transport, tandem switching, direct trunk transport, and entrance facilities.

If a carrier's scheduled access charge reductions at any Step of the Plan do not meet the annual threshold, it must make further reductions until such threshold is met, starting with reductions in *terminating* access charges, until those rates meet the unified termination rate scheduled for Step 3. If further reductions are still needed, the carrier must make reductions to its carrier loop charges *and/or all* of the originating access charges mentioned above.

By Step 4 of the Plan, Track 1 carriers' rates for originating end office switching, common transport, and tandem switching would be reduced to the ultimate originating rate level declared by each carrier at Step 0, within the caps mentioned above; usage-sensitive and flat-rated carrier loop charges will be eliminated, and intrastate rates for direct trunk transport and entrance facilities will equal interstate rates. Also at Step 4, the rate structures for interstate and intrastate originating access traffic will be identical.

Finally, Track 1 carriers that comply with the phase-down rules may offset any differences between their original intercarrier revenues and those obtained at any Step after their adoption of the Plan through increases in SLC and the Restructure Mechanism, subject to certain restrictions and specific procedures.

Track 2 The general framework for this Track seeks to reduce the carriers’ terminating and originating access charges to an ultimate rate level declared by each carrier at Step 0. The phase-down process for Track 2 carriers is summarized in Figure 8.<sup>86</sup>

A Track 2 carrier may set its declared ultimate rate levels for termination and origination between zero and a relevant maximum rate level set in the Plan for Track 2 carriers under different forms of regulation. By the end of the Plan’s transition period, carriers’ rates may not be higher than the caps included in Table 1.

**TABLE 1  
ORIGINATING AND TERMINATING CHARGE CAPS FOR TRACK 2 CARRIERS**

Type of Track 2 Carrier	Cap for <i>Terminating</i> Rates Starting at Step 3		Cap for <i>Originating</i> Rates Starting at Step 4	
Rate-of-return carriers	Tandem switching & common transport	≤ \$0.0105	Tandem switching & common transport	≤ \$0.0105
	End office switching	≤ \$0.0005	End office switching	≤ \$0.002
Price cap carriers and carriers electing incentive regulation	Tandem switching & common transport	≤ \$0.0075	Tandem switching & common transport	≤ \$0.0075
	End office switching	≤ \$0.0005	End office switching	≤ \$0.002
Price cap or incentive regulation carriers choosing to reduce <i>originating</i> rates to \$0	Tandem switching & common transport	≤ \$0.0097	Tandem switching & common transport	\$0
	End office switching	≤ \$0.0005	End office switching	\$0

Source: Authors’ construct from *Missoula Plan*, July 18, 2006.

At Step 4, the Plan requires that all Track 2 carriers charge originating tandem switching and common transport rates that are equal to or less than their respective terminating charges for these services. Also at Step 4, a Track 2 carrier may choose to *lower* its ultimate rate level as declared in Step 0 and immediately reduce its originating and terminating rates to the new lowered level. The ultimate rate for terminating end office switching, however, may *not* change from its uniform rate of \$0.0005.

The Plan establishes a *Full Rural Transport Rule*, which allows rural carriers to deliver their non-access traffic at the meet-point with non-rural carriers. The *Full Rural Transport Rule* applies to Track 2 carriers under price cap, carriers electing incentive regulation, and rate-of-return carriers that adopt access charges no higher than the maximum rates for Track 2 price cap and incentive regulation carriers.

<sup>86</sup> The Plan sets special provisions for carriers electing incentive regulation at different points of the phase-down transition period.

RATE PHASE DOWN AND UNIFICATION OF INTERCARRIER COMPENSATION					
TRACK 2 CARRIER	STEP 0	STEP 1	STEP 2	STEP 3	STEP 4
<b>GENERAL FRAMEWORK</b>					
ILEC declares its ultimate originating and terminating rates per study area	◆				Opportunity to decrease declared ultimate originating and/or terminating rates
Reduction of interstate and intrastate usage-sensitive <i>originating</i> access to carrier's declared ultimate rate levels		25% of difference between Steps 0 & 4 rates	Another 25% reduction	Another 25% reduction	Rates at declared ultimate rate level. Same rate structure for intra & interstate orig. access
Reduction to interstate levels of intrastate rates for direct trunk transport & entrance facilities		25% of difference between Steps 0 & interstate rates	Another 25% reduction	Another 25% reduction	intrastate rates equal to interstate rates
Elimination of fixed-rate carrier loop charges		25% reduction	Another 25% reduction	Another 25% reduction	Fixed-rate carrier loop charges eliminated
Reduction of interstate and intrastate usage-sensitive <i>terminating</i> access to carrier's declared ultimate rate levels		1/3 of difference between Steps 0 & 3 rates	Another 1/3 reduction	Another 1/3 reduction	Rates lowered at carrier's declared ultimate rates
ALL terminating charges, including those for reciprocal compensation at carrier's declared unified terminating rates					Terminating charges at declared unified ultimate rates
Reduction of intrastate dedicated transport rates towards carrier's interstate dedicated transport rates		1/3 of difference between Step 0 & Step 3 rates	Same reduction		Intrastate dedicated transport @ carrier's interstate rate
Reduction of dedicated transport rates between terminating carriers' Edge and end office		1/3 of difference between Step 0 & Step 3 rates	Same reduction		Dedicated transport rate = Zero
<b>RATE-OF-RETURN CARRIERS</b>					
Opportunity to adopt access rate levels applicable to price cap & incentive regulation carriers	◆				



= Indicates a milestone in the phase down process.

Source: Author's construct from *Missoula Plan*, July 18, 2006.

**Fig.8.** Phase-down of intercarrier charges for Track 2 carriers.

The Plan also establishes a *Modified Rural Transport Rule* that applies to Track 2 rate-of-return carriers that do not elect such originating and terminating rates. This modified rule requires the non-rural carrier to pay some portion of the transport costs beyond the meet-point.<sup>87</sup>

As with Track 1 carriers, Track 2 carriers that comply with the phase-down rules may also offset any differences between their original intercarrier revenues and those obtained at any Step after their adoption of the Plan through increases in SLC and the Restructure Mechanism, subject to certain restrictions and specific procedures.

Finally, Track 2 rate-of-return carriers are given the option to file their own tariffs or to participate in the NECA tariff with rate banding.

Track 3 The Plan unifies each carrier’s interstate and intrastate originating and terminating access rates in four Steps.<sup>88</sup> The unified access charge level will be used as a cap for reciprocal compensation rates. Carriers whose intrastate access charges are already below the interstate level are not required to make any further reductions. Carriers are also allowed to recover revenue losses due to the elimination of any intrastate carrier common line charge through the Restructure Mechanism. For carriers under this Track, the Plan does not modify existing arrangements for EAS traffic. The phase-down process for this Track is summarized in Figure 9.

RATE PHASE DOWN AND UNIFICATION OF INTERCARRIER COMPENSATION						
TRACK 3 CARRIER	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
<b>GENERAL FRAMEWORK</b>						
Adoption of interstate access rate structure for all intrastate access charges						
Reduction of intrastate originating and terminating access charges to the interstate level	25% difference between Step 0 & interstate rates	Another 25% reduction	Another 25% reduction	 Unified access rate: intrastate = interstate level		

Source: Authors’ construct from *Missoula Plan*, July 18, 2006.

**Fig. 9.** Phase-down of intercarrier charges for Track 3 carriers.

As with Track 2 carriers, Track 3 carriers are given the option of pooling and rate banding for access traffic. The NECA pool can be used under the Plan to unify access charges for Track 3 carriers. With respect to reciprocal compensation for traffic exchanged between a Track 3 carrier and another carrier in the absence of an intercarrier compensation agreement, the Plan requires carriers to apply an interim

<sup>87</sup> If at Step 4 a rate-of-return carrier decides to adopt originating and terminating access charges within the maximum allowed to Track 2 price cap and incentive regulation carriers, it will then be entitled to the *full rural transport rule*.

<sup>88</sup> The Plan supporters have not yet reached agreement on the applicable rates to Track 3 carriers in Alaska. The current alternatives as discussed in the Open Issues section of this chapter.

interconnection agreement under the terms discussed in the interconnection framework below. Interim transport and termination levels for all Steps of the Plan will be equal to the Track 3 carrier's interstate switched access rates in effect at the time the interim arrangement is established. These rates will remain in effect until superseded by a state-approved interconnection agreement.

For Track 3 carriers exchanging traffic under an existing interconnection agreement, the Plan requires that reciprocal compensation rates higher than the ILEC's interstate access rate be reduced to the interstate level at Step 1. Once the agreement expires and, pending a new one, the carrier will charge the lower of the rate under the expired agreement or the carrier's current interstate access rates under the Plan.

For interconnection agreements set by state rule, regulation, or arbitration with reciprocal compensation rates under BAK or zero rate, the carrier will begin charging the lower of its current interstate access rate under the Plan or the carrier's highest cost-based, state-approved reciprocal compensation rate at Step 4. When CMRS carriers under all Tracks terminate traffic for IXCs, the IXC will be charged a rate no higher than the maximum Track 1 reciprocal compensation rate. The caps for origination and termination access charges for the three Tracks are illustrated in Figure 10.

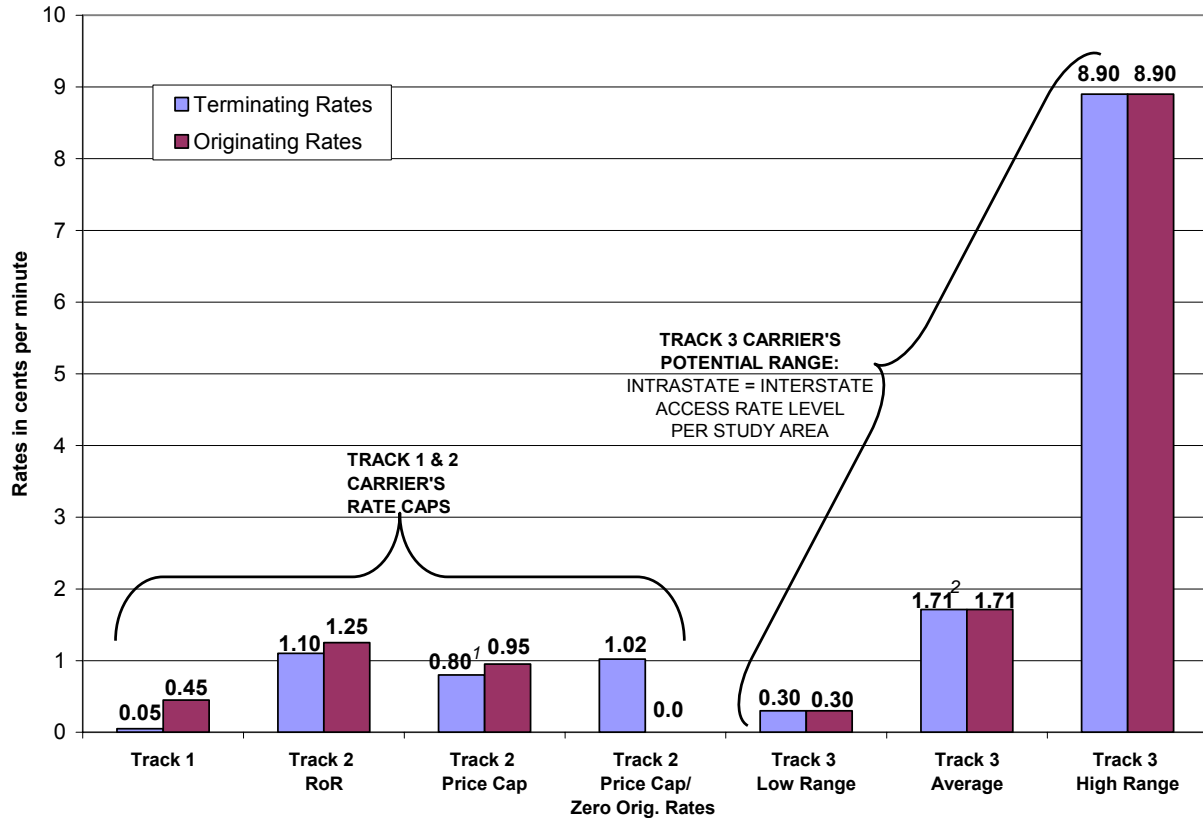
#### *Subscriber Line Charge (SLC) Increases as a Recovery Mechanism for Access Revenues*

Increases to the federal SLC is one of the means that the Plan provides for carriers to recover part of the revenue lost due to the reduced intercarrier compensation rates. SLC raises work in tandem with the Restructure Mechanism and the other recovery mechanisms discussed below.

The SLC rate adjustments that each carrier will be allowed to make under the Plan are bounded by three different constraints that the carrier must comply with as a whole, based on its own classification (Track 1, 2, or 3): Nationwide SLC caps, limitations on average rate increases, and limitations on individual rate increases. Table 2 summarizes the monetary constraints imposed on Track 1, 2 and 3 carriers under the Plan. To limit cross subsidies, and subject to the three constraints, SLC reductions within a Service Category can be offset by SLC increases within that Service Category but not by increases across Service Categories.

Increases in nationwide SLC caps are implemented at different paces according to the carrier's classification. For Track 1, SLC caps will rise to \$10.00 in a four-step transition. For Tracks 2 and 3, the primary residential and single-line business SLC cap will increase by \$2.25 over three years to reach \$8.75. The multi-line business SLC cap will increase by \$0.80 for Track 2 at Step 3 and will not change for Track 3 carriers.





Notes: 1. Assumes end office switching rate of 0.05¢ and 0.75¢ for common transport and tandem switching. 2. Compensation for EAS traffic remains under existing arrangements. Reciprocal compensation rates for 251(b)(5) traffic capped at interstate access rate levels. Access traffic capped at interstate access rate levels.

Source: Authors' construct from the *Missoula Plan*, July 18, 2006 and J. Lubin, *The Missoula Plan for Inter-carrier Compensation Reform*. Presentation at the NARUC Summer Committee Meeting, August 2006.

**Fig. 10.** Caps for originating and terminating access charges for Track 1, 2 and 3 carriers under the Missoula Plan.

Increases to the nationwide SLC cap for Track 3 are dependent on whether states in which Track 3 carriers provide service opt into the Plan. In states that do not opt in, the SLC cap for Track 3 carriers will not increase. If Track 3 carriers are subject to a “local benchmark,” a mechanism may be developed to allow them to adjust their SLC increases to maintain such a benchmark. In this sense, they could implement higher SLC increases if the local rate is farther from this benchmark or smaller ones if it is closer to it. Changes in SLC caps under this provision require Track 3 carriers to demonstrate that the average SLC rises by \$0.75 in Steps 1, 2 and 3.



**Table 2**  
**CONSTRAINTS ON SUBSCRIBER LINE CHARGES**  
**FOR TRACK 1, 2, AND 3 CARRIERS**

Carrier	SLC Increase	Rate at Step 0	Step	Step	Step	Step	SLC rate at end of transition	Step	
			1	2	3	4		5	
Track 1	<b>Nationwide SLC Cap Constraint</b>								
	Primary residential/single line business SLC cap increase per month	\$6.50	+ \$0.75	+ \$0.75	+ \$1.00	+ \$1.00	<b>\$10.00</b>	SLC cap rises with inflation each year starting in Step 5	
	Non-primary residential cap increase	\$7.00	+ \$0.25	+ \$0.75	+ \$1.00	+ \$1.00	<b>\$10.00</b>		
	Multi-line business SLC cap increase	\$9.20	0	0	0	+ \$0.80	<b>\$10.00</b>		
	<b>Average SLC Rate Increase Constraint for Track 1 Carriers Under Price Cap</b>								
	Average SLC rate increase within each category of service:	--	≤ \$0.75	≤ \$0.75	≤ \$1.00	≤ \$1.00	≤ <b>\$3.50</b>	<b>over rate level at Step 0</b>	Constraint lifted at Step 5
	<i>Mass Market Category</i> (primary & non-primary residential, single-line business SLCs)  <i>Enterprise Category</i> (Multi-line business SLCs)		Average SLC rate within each category not to be increased by more than the portion of a Track 1 carrier Access Shift per Line <sup>89</sup> recoverable at Steps 1 through 3, if lower than average SLC raise in line above						
<b>Individual SLC Rate Increase Constraint for Track 1 Carriers Under Price Cap</b>									
Individual maximum residential and single-line business SLC rate increase per month	--	≤ \$0.95	≤ \$0.95	≤ \$1.20	≤ \$1.20	≤ <b>\$4.30</b>	<b>over rate level at Step 0</b>	Constraint lifted at Step 5	
Track 2	<b>Nationwide SLC Cap Constraint</b>								
	Primary residential/single line business SLC cap increase per line	\$6.50	+ \$0.75	+ \$0.75	+ \$0.75		<b>\$8.75</b>	No further increase with inflation	
	Multi-line business SLC cap increase	\$9.20	0	0	+ \$0.80		<b>\$10.00</b>		
	<b>Average SLC Rate Increase Constraint for Track 2 Carriers Under Price Cap</b>								
Average SLC rate increase within each category of service:	--	≤ \$0.75	≤ \$0.75	≤ \$0.75		≤ <b>\$2.25</b>	<b>over rate level at Step 0</b>	Constraint lifted at Step 5	
<i>Mass Market &amp; Enterprise Categories</i>		Average SLC rate within each category not to be increased by more than the portion of a Track 2 carrier Access Shift per Line recoverable at Steps 1 through 3, if lower than average SLC raise in line above							

<sup>89</sup> Access shift per line is calculated by subtracting switched access revenues under the Plan from current switched access revenues and dividing the difference by the number of switched access lines.

Carrier	SLC Increase	Rate at Step 0	Step	Step	Step	Step	SLC rate at end of transition	Step
			1	2	3	4		5
<b>Nationwide SLC Cap Constraint</b>								
Track 3	Primary residential/single line business SLC cap increase per line	\$6.50	+	+	+		<b>\$8.75</b>	No further increase with inflation
	Multi-line business SLC cap increase	\$9.20	0	0	0		<b>\$9.20</b>	

Source: Authors' construct from *Missoula Plan*, July 18, 2006, pp.19-22.

The Plan protects Lifeline customers from the impact of increased SLC rates. These rates are not increased under the Plan, and carriers are allowed to recover the lost revenues from these customers through the Restructure Mechanism.

Increases to individual SLC rates for Track 1 carriers under price cap regulations are linked to the nationwide SLC constraint. As a result, all SLC rates shall always be within the nationwide cap for the relevant Step of the Plan. Once the transition period is over, at Step 5, the individual SLC rate constraint will be lifted.

The three constraints on Track 1 carriers may be adjusted upwards in Steps 1 through 3 of the Plan for a carrier whose cumulative access charge reductions at a given Step represent a disproportionately large percentage of the *total* access charge reductions the carrier expects to make under the Plan. Upward adjustments to the SLC cap constraint (nationwide cap) can be made by a carrier only until it reaches the ultimate \$10.00 capped rate, or this rate plus inflation after Step 4.

Subject to the three constraints above, the Plan gives all price cap carriers flexibility in the way they apply SLC changes among their customers, as long as they remain within the nationwide SLC cap. Some of the options include geographically deaveraging rates by pricing zone,<sup>90</sup> varying SLCs based on customer purchase choice or customer segment, and offering special promotions and charge options for customers purchasing bundles and service packages. By Step 4, carriers will be given additional flexibility, including the elimination of restrictions on pricing zones.

### **Application of Switched Access and Reciprocal Compensation**

The Plan establishes clear, concrete rules for intercarrier compensation charges based on two categories of traffic: switched access and reciprocal compensation. The classification of traffic uses a telephone-number based methodology, recognizing that telephone numbers do not always reliably identify end users' actual locations. The definition of access traffic and reciprocal compensation traffic and the associated intercarrier compensation rules are summarized in Table 3.

<sup>90</sup> Each pricing zone must contain at least 15 percent of the lines and no more than four zones may be created per state.

**TABLE 3  
CLASSIFICATION OF ACCESS TRAFFIC AND RECIPROCAL COMPENSATION  
TRAFFIC**

		Types of Traffic	Compensation Rules
<b>ORIGINATING</b>	<b>Between two LECs</b>	The calling telephone number and the called telephone number are associated with different rate centers and the rate centers are not in the same reciprocal compensation local calling area.	<u>Originating Access charges:</u> Interstate originating switched access charges apply if the rate centers are in different States; Intrastate originating switched access charges apply if the rate centers are in the same state.
		The called number is an 8YY call for which a POTS routable number is returned from the 800 center and the telephone number is associated with a rate center not located in the same reciprocal commensuration local calling area as the calling number.	
		The called number is an 8YY call for which a POTS roundtable telephone number is not returned from the 800 database or is a call type that does not rely upon geographically-based telephone number convention, e.g., 900 traffic.	
	<b>From LEC to CMRS</b>	The calling telephone number of the wireline subscriber and the called telephone number of the wireless subscriber are associated with different rate centers within the same MTA and an IXC has the retail toll service relationship with the calling party.	<u>Originating Access charges:</u> Interstate originating switched access charges apply if the rate centers are in different States; Intrastate originating switched access charges apply if the rate centers are in the same state.
The calling telephone number of the wireline subscriber and the called telephone number of the wireless subscriber are associated with different rate centers in different MTAs.			
<b>TERMINATING</b>	<b>Between LEC and non-CMRS carrier</b>	The telephone number of the calling party and the telephone number of the called party are associated with rate centers that are in the same reciprocal compensation local calling area, including: (1) traffic for which the calling number for VoIP-originated traffic is the telephone number assigned to the end user subscribing to the VoIP service, not the telephone number assigned to the PRI service used to interconnect with the PSTN; (2) ISP-bound traffic that is subject to the specific charges applicable to ISP-bound traffic; and (3) Out-of-balance traffic that is subject to the specific charges applicable to out-of-balance traffic.	Terminating reciprocal compensation.
		Traffic terminating on a wireline network when the telephone number of the calling party and the telephone number of the called party are associated rate centers that are not in the same reciprocal compensation local calling area.	<u>Terminating access charges:</u> Interstate terminating switched access charges if the rates centers are in different States; Intrastate terminating switched access charges if the rate centers are in the same state.
		Terminating traffic that is received without calling telephone number information.	Such traffic will be allocated to the access and reciprocal compensation categories in the same proportion as terminating traffic received with the calling number information.

		Types of Traffic	Compensation Rules
<b>TERMINATING</b>	<b>From CMRS to LEC</b>	The telephone number of the wireless subscriber and the called telephone number of the wireline subscriber are associated with rate centers within the same MTA – reciprocal compensation traffic.	Terminating reciprocal compensation charges apply.
		The telephone number of the wireless subscriber and the called telephone number of the wireline subscriber are associated with rate centers within different MTAs – access traffic.	<u>Terminating access charges:</u> Interstate terminating switched access charges if the rates centers are in different States; Intrastate terminating switched access charges if the rate centers are in the same state.
		CMRS-originating traffic is exchanged with a LEC via an IXC.	
	<b>From LEC to CMRS</b>	The calling telephone number of the wireline subscriber and the called telephone number of the wireless subscriber are associated with rate centers within the same MTA, or different rate centers but covered by an ILEC EAS arrangement, or different rate centers in the same MTA and the LEC has the retail toll service relationship with the calling party. In addition, a LEC may not use an IXC to exchange traffic in the scenario described above with a CMRS provider.	Terminating reciprocal compensation charges apply.
		LEC-to-CMRS traffic that does not fall into the above description.	Terminating access charges apply.
	<b>Between IXC and CMRS</b>	At Steps 2 and 3 of the plan, when a CMRS provider terminates IXC traffic.	The CMRS provider charges a \$0.0007 terminating fee.
		From Step 4 of the plan, when a CMRS provider terminates IXC traffic.	The CMRS provider will charge a \$0.0005 terminating fee.

Source: Authors' Construct from *Missoula Plan*, July 18 2006, pp.26-30.

*Carrier's Financial Obligations for Non-Access Traffic*

The Missoula Plan establishes a compensation framework for the transport and termination of traffic subject to section 251(b)(5), that is, traffic currently subject to reciprocal compensation charges, and addresses the special cases of ISP-bound traffic, out-of-balance traffic, and transport using tandem transit service.

Under the Plan, a carrier originating traffic is financially obligated to bear the interconnection-related cost of *transport* to deliver its originating non-access traffic to the terminating carrier's Edge (as defined in Appendix A) and the cost of *termination* of its originating traffic by the terminating carrier from its Edge. The Plan forbids carriers to assess any other charge for non-access traffic originating on their networks, except as set forth in its provisions.

The Plan's rules for non-access traffic apply at Step 1 to ISP-bound traffic and traffic now subject to reciprocal compensation charges that is exchanged between carriers.<sup>91</sup> Under the Plan, ILECs will receive reciprocal compensation for transport and termination of another carrier's traffic based on the rate level applicable to the type of ILEC (Track 1, 2 or 3) providing service in the rate center in which the called telephone number is assigned.<sup>92</sup> The compensation for non-ILEC terminating carriers is capped to the Track 1 ILEC rate level for comparable interstate dedicated transport.<sup>93</sup>

### Transport Charges

The Missoula Plan envisions that most transport rates will be reduced to meet the ultimate transport rate level set in the Plan. Yet, the Plan clarifies that in some cases certain rate elements may increase to meet the ultimate threshold. According to the Plan, an originating carrier purchasing the terminating carrier's transport services to reach its Edge will incur *transport* charges according to its selection of interconnection arrangement with the terminating carrier, as summarized in Table 4.

**TABLE 4  
TRANSPORT CHARGES AND INTERCONNECTION ARRANGEMENTS**

Interconnection Arrangement	Applicable Transport Charges
<i>Direct</i> interconnection to a terminating carrier's Edge	<i>Flat-rated</i> charge for dedicated transport of traffic at the applicable interstate dedicated switched transport rates.  If terminating carrier is a non-ILEC, rates will be <i>capped at the Track 1 ILEC rate level</i> for comparable interstate dedicated transport.
"Through the switch" interconnection arrangements: Tandem switch transport	<i>Usage-based</i> charge for common transport and/or tandem switching charges, <sup>94</sup> subject to EAS and out-of-balance traffic provisions.

Source: Authors' construct from *Missoula Plan*, July 18, 2006, II.E.3., p.31.

<sup>91</sup> Once the terminating charges for Track 1 or Track 2 carriers are unified, terminating traffic that was subject to access charges will be considered non-access traffic for purposes of the Plan.

<sup>92</sup> Except for the flat network reciprocal compensation structure described below.

<sup>93</sup> The Plan sets special transport and compensation obligations to interconnection arrangements in place prior to the adoption of the Plan where a non-ILEC has established a Point of Interconnection (POI) at a Track 1 ILEC's end office or local tandem (Virtual Edge). See II.E.3.d.ii.

<sup>94</sup> The flat network compensation structure is an exception to this general rule.

For traffic exchanged with a Track 3 carrier, the transport charge includes any transport link costs between the Track 3 carrier's end office location served by a remote switching system and its host end office.

As stated above, the Plan establishes special transport obligations for Track 1 carriers that exchange traffic with CRTCs. Under the *Modified* Rural Transport Rule, Track 1 carriers have the financial obligation to transport their traffic to the Track 3 ILEC's Edge. The Track 1 carrier will bear the cost of provisioning interconnection transport to carry traffic in both directions between its Edge and the Track 3 carrier's meet point. The meet point on the Track 3 ILEC's network is established by taking into consideration whether or not such ILEC's end office subtends a tandem switch owned and operated by the Track 3 ILEC, the type of traffic served (access or non-access), as well as the volume of ISP-bound traffic originating from a Track 3 ILEC's end office to a Track 1 carrier.

Notwithstanding these rules, the Plan does not affect existing interconnection or reciprocal compensation arrangements, including tandem transit arrangements between a Track 3 and Track 1 ILEC with respect to the exchange of EAS traffic in a mandatory local calling area or optional local calling area arrangement.

The *Full* Rural Transport Rule applies to some Track 2 carriers that qualify when satisfying the intercarrier compensation framework phase-down rules. Ultimately these carriers will be exempt from any transport cost between the meet point and the Track 1 carrier's Edge. The Track 1 carrier will bear the financial obligation for transport to carry traffic in both directions between its Edge and the meet point with the Track 2 ILEC. The Track 1 carrier also bears the costs of transporting its originating traffic to the Track 2 carrier's Edge. Finally, Track 2 carriers under the *Full* Rural Transport Rule need not compensate Track 1 carriers for any dedicated transport capacity needed to transport its originating traffic to the Track 1 carrier's Edge. Other Track 2 carriers will qualify only for a *Modified* Rural Transport Rule, under similar conditions as Track 3 carriers.

To reduce the opportunities for arbitrage between carriers exchanging different amounts of traffic and charging different reciprocal compensation rates, the Plan establishes a safeguard for the exchange of section 251(b)(5) traffic, other than ISP-bound traffic, that exceeds a 3:1 termination ratio, which is defined as out-of-balance traffic.

#### Transport and Termination Charges for Reciprocal Compensation Traffic

The Plan applies different rates for transport and termination functions performed to terminate non-access traffic based on the type of originating and terminating carriers:

- When the traffic exchange occurs *between any two non-ILECs*, each carrier will charge its own rates at Step 1. By Step 3, both carriers will charge the applicable Track 1 reciprocal compensation rates to terminate the other carrier's traffic.

- The reciprocal compensation rate for traffic exchanged *between two ILECs* is that applicable to each carrier's Track for terminating the other carrier's traffic, subject to EAS traffic provisions.
- Finally, for traffic exchanged *between an ILEC and a non-ILEC*, the applicable reciprocal compensation rate charged by the non-ILEC will be that charged by the ILEC for comparable functions.

Table 5 summarizes the rules for transport and termination charges applicable to Track 1, 2 and 3 carriers, including the rules applicable to EAS arrangements and tandem transit. The Plan stipulates that the FCC will determine, as part of its proceeding at Step 4, whether additional reform to these rules is necessary.

#### Intercarrier Compensation for ISP-Bound Traffic

The definition of ISP-bound traffic is built on the FCC's ISP-Bound Traffic Framework as described in the 2001 *ISP Remand Order*<sup>95</sup> and the 2004 *CoreComm Order*.<sup>96</sup> Special rules concerning ISP-bound traffic in the Plan are intended to eventually keep the terminating for ISP-bound traffic at the same level of other types of terminating traffic. Main rules are summarized in Table 5.

The ISP-Bound Traffic Framework will apply to traffic exchanged between two non-ILECs until Step 3. Moreover, virtual NXX ISP-bound traffic will be treated like all other ISP-bound traffic. The ISP-bound mirroring rule for Track 3 carriers is one of the issues that remain open, as the Plan's supporters were unable to reach an agreement. The alternatives proposed by the supporters are summarized in the Open Issues below. This rule is to be decided by the FCC.

#### Special Safeguard Concerning Out-of-Balance Traffic

Out-of-balance traffic is all non-access traffic that exceeds a 3:1 terminating to originating ratio between two carriers, regardless of whether it is ISP-bound traffic. Special rules regarding out-of-balance traffic are established to prevent a carrier from taking advantage of higher reciprocal compensation rates in such a scenario. The Plan sets a termination charge of the lower of the current effective termination charge or \$0.0007 for both (1) out-of-balance traffic originated by a Track 1 or Track 2 carrier and terminated by a Track 2 or Track 3 carrier, and (2) Track 3-originated, non-access, non-ISP-bound traffic terminated by a Track 2 or Track 3 carrier.

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<sup>95</sup> FCC 01-131, *Order on Remand and Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic*.

<sup>96</sup> FCC 04-241, *Order, Petition of Core Communications, Inc. for Forbearance Under 47 U.S.C.160§ (c) from Application of the ISP Remand Order*.



**TABLE 5  
RATE LEVELS FOR TRANSPORT AND TERMINATION FUNCTIONS  
FOR NON-ACCESS AND ISP-BOUND TRAFFIC**

Condition		Carrier	Rate Levels	
<b>Interim reciprocal compensation agreement/charges</b> (in effect until a state approved interconnection agreement supercedes it)		Track 1 & 2 ILEC	Steps 1 & 2: Interim transport and termination level will be \$0.0007. Step 3: Plan rates included in the phase-down and unification of intercarrier compensation framework (Section II.B)	
		Track 3	All Steps: Interim transport and termination level equal to the Track 3 carrier's interstate switched access rates in effect at the time of the interim reciprocal compensation arrangement.	Except when Track 3 carrier agrees to exchange traffic with CLECs or CMRS providers under bill and keep arrangements.
Existing reciprocal and intercarrier compensation arrangements	EAS traffic exchanged between a Track 3 ILEC and another ILEC	Track 3 ILEC	No change to current reciprocal compensation structure, except as set forth in Section II.E.6 e of the Plan.  The Plan's intercarrier compensation regime does not apply to existing arrangements for tandem transit service, including reciprocal compensation for transport and termination.	
	Mandatory local calling area and optional calling area arrangements			
	Use of tandem transit to indirectly interconnect with a Track 3 ILEC in a mandatory local calling area or optional calling area arrangement			
	Use of tandem transit to indirectly interconnect with other ILEC in connection with an EAS arrangement			
	Use of tandem transit to exchange EAS traffic with a Track 1 carrier in a mandatory local or optional calling area arrangement / transport and termination of such traffic			
	Use of tandem transit by CLEC or CMRS to indirectly interconnect with a Track 3 ILEC			
	EAS traffic exchanged between a Track 3 ILEC & other ILEC on Bill and Keep basis			
		Any carrier, including tandem transit providers, may seek changes to tandem transit services used to indirectly interconnect in an existing mandatory local calling area and optional calling area arrangements. Any carrier retains its right to challenge proposed changes to those services.		
		For mandatory local calling area or optional local calling area arrangements, Track 3 ILECs will offer CLECs and CMRS providers, on a one-time basis, to transport and terminate their traffic to numbers associated with rate centers in such areas under a bill and keep basis		
		Where no interconnection agreement exists, the Track 3 ILEC will extend its bill and keep offer when a CLEC or CMRS provider requests an interconnection agreement. Interim reciprocal compensation rates apply until then.		



Condition		Carrier	Rate Levels
End of existing interconnection agreement		Track 3 ILEC	Pending a new agreement, the carrier will charge the <u>lower</u> of the rate under the expired agreement or the carrier's current interstate access rates under the Plan.
Reciprocal compensation rates established by a state, through rule, order or arbitration		Track 3 ILEC	In states with reciprocal compensation established at bill and keep or zero, default compensation as of Step 4 (unification of interstate and intrastate rates) would be <u>the lower of Track 3 carrier's highest cost-based state approved reciprocal compensation rate or its current interstate access rate under the Plan.</u>
ISP-bound traffic	Mirroring rule	Track 1 & 2 ILECs	When terminating rates are unified (Step 2 for Track 1 and Step 3 or 4 for Track 2 ILECs), these ILECs are no longer required to offer reciprocal compensation mirroring ISP-bound rates
		Track 3 ILEC*	<b>Option 1:</b> No longer required to offer reciprocal compensation mirroring ISP-bound rates as of Step 1. <b>Option 2:</b> Current mirroring rule continues until Step 4.
	Termination rate	Track 1 & 2 ILECs	Applicable termination rate in the Plan as of Step 3, when all terminating rates are unified.  Whenever there is no interconnection agreement, the termination rate at Step 1 will be \$0.0007 per MOU, and will be treated like any other terminating traffic at Step 3.  Whenever an interconnection agreement expires before Step 3, the termination rate will be \$0.0007 per MOU until Step 3 when it will be treated like any other terminating traffic.  In a state that had established, through rule, order or arbitration, a termination rate other than \$0.0007 per MOU, will be treated like any other terminating traffic at Step 3.
		Track 3 ILEC	ISP-bound traffic remains subject to the FCC's ISP-Bound Traffic Framework. A default termination rate of \$0.0005 per MOU applies, as of the start of Step 4 (when intrastate and interstate rates are unified), even in states that had set a different termination rate through order, rule or arbitration.

\* This provision is an open issue.

Source: Authors' construct based on *Missoula Plan*, July 18, 2006.

## Interconnection Framework for Non-Access Traffic<sup>97</sup>

The Missoula Plan outlines the minimum technical requirements a carrier must make available when providing interconnection. The interconnection rules apply only to non-access traffic and not to traffic subject to access rates, unless otherwise specified. The

<sup>97</sup> The definitions of terms used in the interconnection framework are included in the Glossary in Appendix A.

Plan allows carriers to negotiate their interconnection agreements; however, in the absence of such agreements the Plan's default rules would apply.

According to the Plan, a carrier must permit other carriers to physically interconnect at its designated Edges. An Edge is the location on a carrier's network (an end office switch or equivalent facility) where it receives traffic for routing within its network and where it performs the termination function for traffic received from other carriers.

Carriers must designate at least one Edge in each LATA in which it receives traffic from other carriers. The one exception is Alaska, the only state without a LATA, where unless specified, the term LATA would refer to local calling area.<sup>98</sup> The carrier may use other interconnection points by asserting its rights under Section 251(c)(2) and may designate an Edge in another carrier's facilities within the LATA as its Edge, with the agreement of the owner of that facility.

To be designated as an Edge, an end office must:

- (1) Meet one of the functional network location definitions, that is, be a(n):
  - a. End office,
  - b. Point of Presence (POP),
  - c. Trunking Media Gateway that provides access to multiple unaffiliated telephone service subscribers, where unaffiliated carriers may establish TDM trunks linking it to their switches and is listed in a NPA-NXX Codes guide, such as the LERG, and a LRN or is serving as an IXC ingress/egress point,
  - d. Mobile Switching Center (MSC).
- (1) Be capable of the physical interconnection arrangements described in the Plan;
- (2) Be capable of direct and indirect interconnection arrangements;
- (3) Terminate access and non-access traffic directed to subscribers served by the network location;
- (4) Provide number portability functionality when requested, except where a rural LEC has been granted a suspension from the requirements.

#### *Methods of Edge Interconnection*

A carrier (itself or through its agent or designee) is obliged to permit physical interconnection with other carriers at its Edge or tandem location solely for the purpose of direct or indirect interconnection (in the case of their transit providers) through the carrier's choice of method, including:

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<sup>98</sup> The Edge designation rules for Alaska are to be resolved by the FCC in adopting the Plan.

- (1) Fiber Optic Cable Termination, provided that the requesting carrier and the Edge owner offer each other interconnection via fiber optic, and collectively exchange volumes of traffic requiring a minimum of 673 voice grade trunks (one more voice grade trunk than a DS-3).
- (2) Electric Cable Termination, provided that the two carriers offer each other interconnection via electric cable termination, and collectively exchange volumes of traffic that do not exceed 672 voice grade trunks (DS-3).
- (3) The Edge owner's choice of at least two of the following four methods of physical network interconnection: physical collocation or virtual collocation; meet-point interconnection arrangement; leased transport provided by the Edge owner, or leased transport provided by an unaffiliated carrier.

Regarding *collocation requirements* for Edge owners, the Plan does not require collocation from interconnecting carriers using fiber optic or electric cable for termination. However, ILECs are required to make available interconnection through physical and virtual collocation, with the exception of Covered Rural Telephone Companies (CRTC's) still exempted from collocation obligations under Section 251(f)(1).

Also, under the Missoula Plan, ROR ILECs electing the Incentive Regulation Plan are expected to provide extended interconnection with collocation of all elements and methods enumerated under Section 251(c)(6) and 47 C.F.R. 51.321-51.323 for any study area in which the ROR carrier elects the incentive regulation offer, upon bona fide request and pursuant to their interstate access tariffs. The collocation will be provided with cost-based cross connects from the collocator to the ILEC facilities, without charging any entrance facility fee for the cross connects.

Finally, the Missoula Plan requires CRTC's to make available meet point or mid-span interconnection arrangements and publish the location of its existing meet points. These mid-span meet points shall be located at or near the boundary of each exchange area, be no farther than two miles from any existing meet point, and utilize existing routes when technically, operationally, and legally feasible.

#### *Tandem Transit Service*

A carrier may satisfy its transport obligation through a third party's tandem transit service. The Plan requires ILECs offering tandem transit at Step 0 to continue doing so under its rules. The Plan rules apply as a default when carriers have not negotiated other transit arrangements. The Plan applies to all tandem transit services offered by any carrier during the life of the Plan, including competitive tandem transit providers, but excludes the pre-existing Track 3 arrangements mentioned in Table 5 above. The Plan also outlines rules to avoid tandem congestion or exhaust.

According to the Plan's rules:

- A carrier providing tandem transit service at a charge at Step 0 must continue to do so at rates not higher than those in effect at Step 0.
- Carriers not charging other carriers for tandem transit services at Step 0 may begin to do so at rates not higher than those it imposes on other carriers under similar circumstances.
- Beginning at Step 2, rates for tandem transit service for reciprocal compensation will be capped at \$0.0025 and be subject to commercial agreements consistent with the Plan's provisions.
- A tandem transit provider may disaggregate its capped rate.
- Zone pricing is not permitted.
- Beginning at Step 4, the cap for tandem transit service provided entirely within an MSA will be lifted; the FCC will determine the competitive triggers to eliminate the cap on transit service between MSAs.

### **Process for Obtaining an Interconnection Agreement**

The Missoula Plan provides carriers with the financial obligation for interconnection the right to choose the type of interconnection arrangement they will use, having the option of interconnecting directly or indirectly through a third party tandem transit service linking the two networks.

In direct interconnection arrangements, the terminating carrier is aware that the requesting carrier will send traffic to it for termination and vice versa. The extent of the traffic sent and received between these carriers can either be balanced or unbalanced. Carriers using direct interconnection usually obtain an interconnection agreement before exchanging traffic. In contrast, carriers using indirect interconnection can send traffic to each other indirectly over a transit tandem service, without realizing immediately that they are terminating traffic for each other. In many cases, these carriers begin exchanging traffic before obtaining an interconnection agreement and its accompanying reciprocal compensation arrangement.

The Missoula Plan intends to establish default rules for the process of obtaining interconnection agreements and reciprocal compensation arrangements for non-access traffic and ISP-bound traffic in a manner consistent with the FCC's *T-Mobile Order*. Through this process, the Plan seeks to ensure carriers the opportunity to be compensated for terminating non-access traffic for another carrier and to obtain an interconnection agreement that stipulates the terms of interconnection and reciprocal compensation for non-access traffic, regardless of the type or classification of the carrier.

### *Establishing an Interim Interconnection Agreement*

Whenever any carrier under Track 1, Track 2, or Track 3 receives non-access traffic from another carrier through an indirect interconnection arrangement, and the two carriers do not have an approved interconnection agreement, the terminating carrier may request compensation for its applicable interim reciprocal compensation charges by establishing an interim interconnection arrangement. According to the process stipulated in the Missoula Plan the receiving carrier may establish an interim interconnection arrangement by sending a notification letter to the carrier originating the non-access traffic, stating that:

- (1) The notifying carrier has terminated non-access traffic for it over the previous 30 days.
- (2) The carriers do not have a preexisting interconnection agreement for such traffic.
- (3) The notifying carrier intends to begin billing its applicable interim reciprocal compensation charges, in accordance to the specifications of the Missoula Plan's intercarrier compensation framework.
- (4) The charges for termination of the originating carrier's non-access traffic will begin 15 days from the date of the notification letter.

The originating carrier will not owe any compensation for termination of non-access traffic for the period prior to the effective date of the interim agreement, unless carriers were disputing compensation for such traffic before the implementation of these rules. In such cases, the dispute is to be settled by the appropriate regulatory commission or court in accordance with prevailing law.

The interim interconnection agreement entitles both carriers to bill their applicable interim reciprocal compensation charges for termination of non-access traffic beginning 15 days from the date of the notification letter and until the interim agreement is superseded by an approved interconnection agreement between the two carriers.

### *Establishing a Formal Interconnection Agreement*

Any Track 1, Track 2, or Track 3 carrier interested in exchanging non-access traffic that does not have an interconnection agreement and companion reciprocal compensation arrangement may request an interconnection agreement with another carrier, regardless of the type or classification of either carrier. Upon receiving such request, any carrier must negotiate in good faith and submit to arbitration by the state commission, if so requested. Negotiation and arbitration procedures for interconnection agreements are set forth in Section 252. According to the Plan, a carrier negotiating a formal interconnection agreement under this provision agrees that the provisions included in the Plan will serve as reasonable default rules.

## Comprehensive Solution for Phantom Traffic

An important issue in intercarrier compensation is how to deal with traffic that lacks sufficient signaling information to enable intermediate and terminating carriers to identify traffic jurisdiction and, in some cases, the provider responsible for payment. To address this problem, the Missoula Plan proposes call signaling rules that require every communications service provider to deliver accurate telephone number signaling information for use by both intermediate and terminating providers, while allowing for a few exceptions based on legitimate technological limitations of a carrier's network.<sup>99</sup>

The call signaling rules apply to all traffic that originates on, transits, or is destined for the public switched telephone network from other networks. Originating providers are required to include in their signaling the telephone number assigned to the calling party using the number identification parameter(s) appropriate to the type of signaling protocol being used. For instance, a provider using SS7 signaling protocol must transmit this information in either the Calling Party Number (CPN) or Charge Number (CN) parameters. Intermediate providers must transmit the telephone number information contained in such parameters without any alteration.

A provider claiming legitimate technological limitations to fulfill the call signaling rules must provide notice and evidence to support its claim. To resolve some of these technology-related network limitations, the industry created a group that will identify and resolve CPNI-related problems.

Violations to the calling signaling rules set in the Plan are dealt with through an enforcement mechanism that provides the FCC a list of remedies that include assessing forfeitures for each violation, awarding damages to aggrieved parties, and imposing special interconnection obligations on providers deemed by the FCC as "chronic violators." Importantly, the Plan states that intermediate providers should *not* be required to block traffic from providers who violate the rules.

To expedite dispute resolution, the signaling rules calls providers to work cooperatively, but also urges the FCC to include call signaling disputes among the proceedings meriting inclusion in the Accelerated Docket.

Moreover, to facilitate reliable billing of intercarrier compensation, the Plan proposes the development of an industry-driven proposal establishing uniform rules for the generation and exchange of call detail records for traffic not covered by the Multiple Exchange

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<sup>99</sup> Technological exceptions applying to *originating providers* include, among others, 47 C.F.R. §64.1601(d) traffic for which providers are exempt from supplying Calling Party Number information, traffic originated from an end user service that does not use a North American Numbering Plan telephone number, operator-assisted dialed traffic where the originating provider uses an operator service platform based on MF signaling, as well as some types of Non-Feature Group D traffic. In the case of *intermediate providers*, some of the technological limitations are related to the reception of traffic from a provider using a different signaling protocol that lacks the appropriate telephone number information parameters for the intermediate provider to transmit such information with its own signaling protocol.

Carrier Access Billing (MECAB). The industry proposal would be submitted to the FCC within sixty days after the filing of the comprehensive Plan. It would contain, among other provisions, rules on the type of information to be exchanged, when it will be exchanged, record format, applicable charges, as well as an interim process for exchange of call-detail information while the uniform process is fully implemented. Although implementation of the uniform process is expected to begin at Step 1 of the Plan, the industry solution provides for a reasonable transition period to allow carriers to modify their systems.

Finally, the supporters of the Plan agreed on an interim phantom traffic solution to address call signaling issues until the FCC adopts the comprehensive Plan and releases a final order on comprehensive reform of intercarrier compensation. The solution would have the FCC release an interim order to implement the Plan's call signaling rules, enforcement process, and the interim plan for call detail record exchange. This order would also confirm the responsibility of originating carriers to pay the terminating carrier applicable intercarrier charges when using indirect interconnection arrangements to deliver traffic.

### **Revenue Recovery Mechanisms**

The Plan allows carriers to recover some of their lost intercarrier compensation revenues from end users through increased SLCs, as discussed above, as well as through two new mechanisms created in the Plan: A new Restructure Mechanism and an Early Adopter Fund to provide additional support for states that have reduced intrastate access rates through an explicit state fund by the time the Plan is adopted.

#### *Restructure Mechanism*

The Plan proposes the creation of a Restructure Mechanism (RM), designed to replace revenues that are lost due to the restructured intercarrier compensation charges and not recovered by the increased SLCs. The current best estimate of the size of the Restructure Mechanism at the end of the transition is approximately \$1.5 billion. It involves an adjustment of the existing universal service mechanisms, including the high-cost loop support mechanisms and the safety-valve support mechanism.

When carriers' revenue is not recovered through increased SLC rates or restructured intercarrier charges, they may receive support from the Restructure Mechanism. As a general guideline, the recovery support from the Restructure Mechanism is calculated separately for each study area as though the carrier had raised its SLC rates to the highest levels permitted under the Plan. All ILECs may deaverage their Restructure Mechanism dollars. When a price cap or incentive regulation ILEC that has deaveraged Restructure Mechanism dollars loses a line, it will also lose the Restructure Mechanism dollars targeted to that line.

The rules for the Restructure Mechanism are different for carriers in different Tracks and under different regulations. For Track 1 and Track 2 price cap carriers, the foregone per-line revenue may be recovered in a small, but increasing, percentage at each Step



until Step 4. At this point, a carrier may recover 100 percent of the total expected access charge revenue loss calculated based on its number of lines at Step 4. The recovery mechanism can be described shortly as follows:

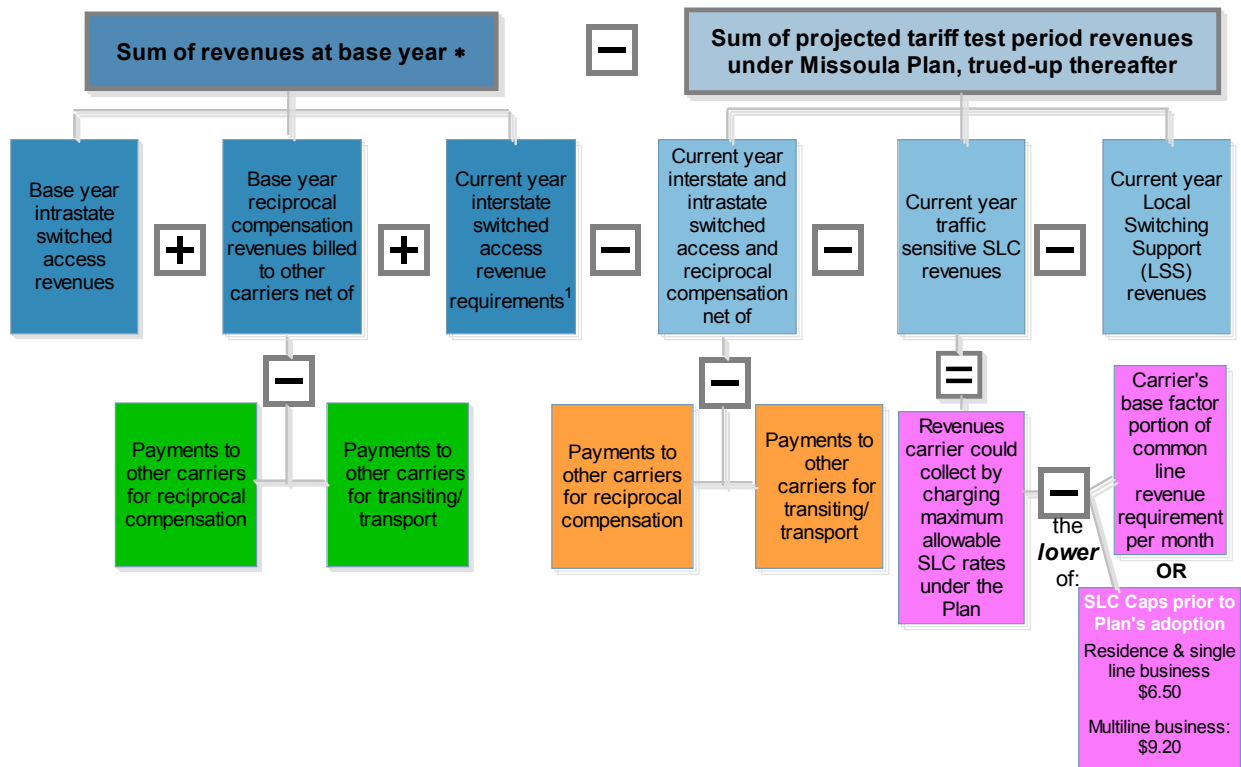
- Step 0: Carriers will determine their total expected loss of access charge revenues and associated EAS impact; this amount is a carrier's "Access Shift." "Access Shift Per Line" is calculated by dividing a carrier's Access Shift by its Step 1 Base Period line demand. A Track 1 carrier's Access Shift Per Line will be the same for the life of the Plan.
- Step 1: The percentage of a carrier's Access Shift Per Line allowed to be recovered for each line is determined by the ratio of its weighted average access rate from Step 0 to Step 1 and the expected change in its weighted average access rate from Step 0 to Step 4. The carrier will be allowed to recover this percentage of the Access Shift Per Line for the number of lines counted at the Step 1 Base Period.
- Step 2: The percentage of a carrier's Access Shift Per Line allowed to be recovered for each line is the allowed percentage in Step 1 plus the ratio of its weighted average access rate from Step 1 to Step 2 and the expected change in its weighted average access rate from Step 1 to Step 4 of the Plan. The line count allowed for this period will be the number of lines at the Step 2 Base Period.
- Step 3: The percentage of a carrier's Access Shift Per Line allowed to be recovered for each line is the allowed percentage in Step 2 plus the ratio of its weighted average access rate from Step 2 to Step 3 and the expected change in its weighted average access rate from Step 2 to Step 4. The line count allowed for this period will be the number of lines at the Step 3 Base Period.
- Step 4 and all subsequent Steps: A carrier is allowed to recover 100 percent of its Access Shift Per Line, multiplied by the number of lines at Step 4 or the carrier's line demand from the Base Period for the corresponding Step.

The procedures of determining Restructure Mechanism dollars are the same for Track 1 and Track 2 price cap carriers, except for the stipulation about line loss. For Track 1 price cap carriers, the recovery from the Restructure Mechanism is calculated on a per-line basis. Therefore, the loss of a line at any Step of the Plan will result in a loss of Restructure Mechanism dollars. However, Track 2 price cap carriers that lose lines will not lose Restructure dollars during Steps 1 through 3 of the Plan. Starting at Step 4, however, line loss will result in a reduction of Restructure Mechanism dollars.

For rate-of-return carriers in Track 1 through Track 3, Restructure Mechanism dollars are used to recover the difference between a carrier's revenues under the existing system and its revenue under the Plan. The detailed calculation is illustrated in Figure 11. According to the Plan, funds from the Recovery Mechanism will be available to other carriers (CLECs, CMRS, etc.) in circumstances to be determined in the future.



The Restructure Mechanism dollars for Rate-of-Return carriers will be calculated each year as:



\* For this calculation, "base year" is the last full calendar year previous to the Plan's adoption. Initially, the calculation will be based on base year intrastate revenues and projections of tariff test period interstate switched access revenue requirements, along with projected intrastate and interstate test period revenues. Thereafter distributions will be trued-up using actual data when it becomes available.  
 1. Or the switched access average schedule settlements. When actual data becomes available, current year actual interstate switched access revenue requirement will be calculated at authorized interstate RoR of 11.25 percent determined through cost separations studies.

Source: Author's construct based on *Missoula Plan*, July 18, 2006, pp. 73-74.

**Fig. 11.** Track 1, 2 and 3 Rate-of-Return Restructure Mechanism calculation.

### Early Adopter Fund

Finally, the Plan proposes for the FCC to establish a federal Early Adopter Fund to encourage adoption of the Plan by states where carriers have already reduced their intrastate access rates. This Fund is conceived as a mechanism for states to recover a portion of the state universal service funds used to compensate carriers for rebalancing their intrastate access rates prior to the Plan's adoption.

The purpose of this Fund is to reduce the size of such explicit state funding mechanisms and its support can only be used for this specific purpose. To qualify for the Early Adopter Fund, a state is required to implement the Missoula Plan, certify that state funds were used solely to defray the costs of compensating carriers for reductions in intrastate access charges prior to the Plan's adoption and agree to use the resources from the Fund to lower the state line item for its explicit state funding mechanism.

Supporters of the Missoula Plan are working with state commissions to determine the size of the fund so that it covers an appropriate percentage of the state access reduction funds distributed to carriers. The Plan proposes a floor for the Fund of at least \$200 million. The stakeholders also need to agree on how to implement the Fund in states that have already rebalanced access rates through state funding mechanisms, new line items and/or local rate increases. If an agreement on these issues is reached between the parties before the middle of October 2006 (90 days after the filing of the Plan at the FCC), it would be filed as an amendment to the Plan for the FCC's consideration.

### **Changes to Existing Universal Service Mechanisms**

The Plan will modify the existing USF mechanisms to recover some carriers' potential revenue loss due to the increased SLC and adjusted access and reciprocal compensation charges. The Plan recommends creating two additional support mechanisms: *Non-Rural High-Cost-Loop Support* and *Safety Valve II*. Some of the main changes proposed in the Plan include:

(1) *High-Cost-Loop Fund (HCLF)*: The rural HCLF will be reindexed based on the current nationwide average cost per loop for rural telephone companies. The Plan increases the amount of HCLF support over 24 months and recaps it.

(2) *Interstate Common Line Support (ICLS)*: The common line SLC revenue base for rate-of-return carriers will equal the base factor portion of the common line revenue per month, limited to the existing SLC caps of \$6.50 for residential and single-line business and \$9.50 for multi-line business.

(3) *Non-rural high-cost-loop support*: It will be created as an optional support available for eligible price cap CTRCs. It will be based on the non-rural high-cost model.

(4) *Safety Valve Support*: The Plan modifies the rules of the existing Safety Valve Support Mechanism for high-loop-cost rural ILECs (termed as Safety Valve I) during the acquisition transaction period. The amount of Safety Valve I funding remains capped at five percent of the HCLF support distributed to rural ILECs. The Plan creates a supplemental mechanism (Safety Valve II) to provide revenue recovery for carrier acquisitions.

(5) *Lifeline Support*: The Plan adjusts the amount of lifeline support to offset changes in SLC rates.

### **Incentive Regulation Plan**

Under the Plan, every rate-of-return CRTC will have an annual option to move to the incentive regulation program for any qualifying study area. Once the carrier elects to place a study area under incentive regulation, the area will be considered a Track 2 study area, and the election is *not* reversible. Incentive regulation will replace cost-based rate-of-return revenue formulas with per-line revenue formulas. The pricing

flexibility of incentive regulation will allow participating carriers to maximize their financial gains from increased efficiency.

Prices and support payments of the incentive regulation area will be set at levels that allow carriers to recover the same amount of revenue as they did immediately prior to electing incentive regulation. The permitted revenue per line will be recovered primarily through the rates established in the Plan. The difference between baseline revenue per line and expected revenue per line will be recovered from the Restructure Mechanism.<sup>100</sup>

Under incentive regulation, interstate special access rates will have the following features: an 11.25 percent return on investment; price caps under which annual productivity-based adjustment will exactly offset the rate of inflation; separate baskets for broadband and non-broad special access; and pricing flexibility allowed within each basket with a maximum rate increase of 10 percent. An optional annual low-end formula adjustment mechanism (LFAM) will be established to determine if a carrier may collect additional interstate revenue. The LFAM is set at a 10.25 percent rate of return.

## Open Issues

Although supporters of the Missoula Plan reached agreement on most areas, two open issues remained in the rules for Track 3 carriers: The appropriate terminating switched access rates for Track 3 carriers in Alaska and the ISP-bound mirroring rule. In these cases, the Plan outlines the alternatives proposed by the different parties. Supporters of the Plan expect the FCC to make a decision on these open issues and other details of the Plan as part of its proceeding.

### *Alaska Track 3 Terminating Switched Access Rates*

Due to the high cost of telecommunications infrastructure in Alaska, without additional support, switched access rates for rural rate-of-return Track 3 LECs in Alaska will be considerably higher than the rates in the continental U.S. The Plan proposes two alternatives to ensure that consumers in Alaska will have long-distance rates comparable to the rest of the U.S. The first is to utilize the NECA rate-averaging pool to keep terminating rates for Alaska Track 3 carriers at the level of those for other Track 3 carriers in the U.S. The second is to have all rural rate-of-return Track 3 LECs (including Alaska carriers) transition to a cost-based interstate rate structure and use the Restructure Mechanism to reduce terminating switched access charges in Alaska beginning at Step 4.

### *ISP-Bound Mirroring in Track 3 Areas*

The Plan proposes that Track 3 ILECs should no longer be required to offer reciprocal compensation rates that mirror ISP-bound rates, either as of the beginning of Step 1 or

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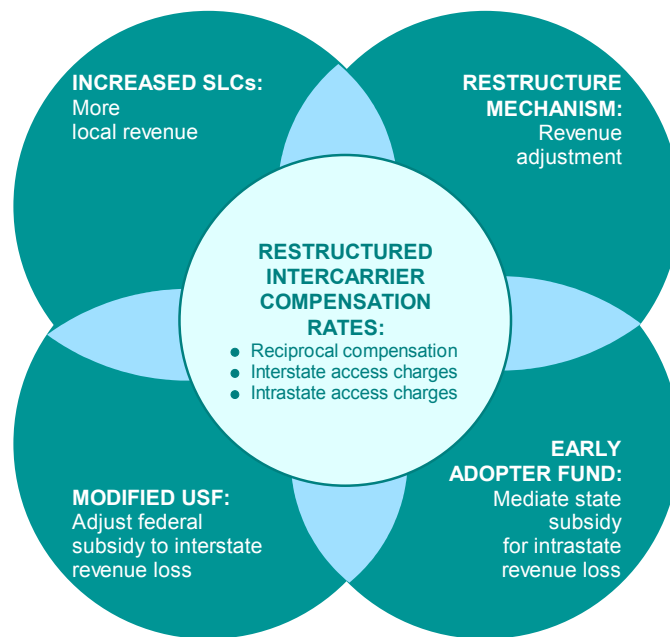
<sup>100</sup> For calculation details, see the *Missoula Plan*, VII.B.2, p. 81.

as of the beginning of Step 4. Because Track 3 carriers operate in high-cost areas, usually rural areas where there are still large amounts of dial-up access traffic to ISPs, the mirroring rule would present arbitrage opportunities detrimental to Track 3 ILECs. To prevent arbitrage, either the new market rule (bill-and-keep) needs to be implemented, or ISP rate mirroring rule shall be eliminated. The latter alternative, which preserves the mirroring rule until Step 4, would reduce the reciprocal compensation rates charged by Track 3 carriers, thus benefiting interconnecting LECs and wireless carriers.

Beyond the open issues above, supporters of the Missoula Plan are currently working with state commissions on a proposal outlining provisions for the implementation of the Early Adopter Fund, including its size and distribution mechanisms.

**Summary**

The Missoula Plan is a step forward in the process towards a more transparent and efficient intercarrier compensation and interconnection framework. It proposes to unify and lower intercarrier compensation rates, raise SLCs, modify the Universal Service Fund and create new recovery mechanisms as shown in Figure 12.



Source: Authors' construct.

**Fig. 12.** Effects of intercarrier compensation reform proposed by the Missoula Plan.

The Plan’s impact on consumers and its implications for other industry members, particularly for CLECs, cable companies and wireless providers, will be assessed in the next few weeks by state commissions and other stakeholders before the Plan is considered by the FCC. Chapter 3 identifies some implications of the Plan for state commissions and outlines some of the concerns expressed so far by industry stakeholders and consumer groups.

## CHAPTER 3

### IMPLICATIONS AND STAKEHOLDER REACTIONS

Though the Missoula Plan represents a significant accomplishment, there are, however, significant issues with the plan. These include jurisdictional separations issues, the effect on existing Universal Service support, the effect of SLC increases, carrier accountability, and the unknown impact of possible changes in federal Universal Service support and separations. This chapter identifies some the implications of the Plan for state commissions and presents some comments and positions that have been expressed about the Plan.

#### **Jurisdictional Concerns and Preemption**

One major issue is whether the FCC can require the states to impose uniform intrastate access charges. Any FCC proposal that mandates reform of intrastate access charges raises significant jurisdictional issues. Though some states mirror interstate access charges, states are at different points on the road to rebalancing intrastate access charges. The FCC's authority to mandate reform of intrastate access charges, which have historically been under exclusive state jurisdiction, is questionable. NARUC and many states oppose preemption, and an attempt to mandate uniformity would likely result in litigation.

To induce state buy-in, the Plan provides a "carrot" in the form of an Early Adopter Fund for states that have already rebalanced intrastate access rates. The specific operation of that fund is somewhat vague, though it is noted that it would be at least \$200 million and must be used to decrease the size of explicit state access charge reduction mechanisms. The Plan's supporters also agreed to work with states to more clearly define the size and operation of the Early Adopter Fund.<sup>101</sup>

The plan also contains a "stick" that would preclude states that did not bring intrastate access charges in line with interstate access charges from drawing from the Early Adopter Fund and carriers in those states from receiving payment through the Restructure Mechanism. Thus, states that did not implement the Plan's provision with respect to intrastate access charges would find themselves in the difficult position of having their constituents pay into a Restructure Mechanism from which they (or their carriers) receive no benefit.

If adopted by the FCC, implementation of the Missoula Plan's provisions would become mandatory for the states. Nevertheless, the Plan contains two areas in which the states retain authority to decide whether to participate or not:

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<sup>101</sup> *Missoula Plan*, p. 76 and n. 27.

- 1) Reforms to *intrastate originating* access charges at Step 1 for *Tracks 1 and 2* carriers, and
- 2) Adoption of rate levels for *originating and terminating intrastate* access traffic at Step 3 for *Track 3 carriers*.

To promote adoption of these voluntary measures, the Plan provides financial incentives for states implementing all of the Plan's provisions, including eligibility for funding from the federal Early Adopter Fund, discussed above, and for the funds collected as part of the Restructure Mechanism. It should be pointed out that even if a state opts out of the reforms to intrastate originating access charges for Track 1 and 2 carriers, the changes to nationwide SLC caps for these carriers would still take place. Also, the Plan allows these two types of carriers to petition the FCC, no sooner than at the beginning of Step 2, for preemption of state authority over their intrastate originating access rates. Similarly, the Plan includes a recommendation for the FCC to consider whether to make it mandatory for states to implement all of the Plan's rate provisions for Track 3 carriers including that on originating and terminating intrastate access traffic, when the FCC conducts its assessment proceeding at Step 4.

The Plan's supporters provided an analysis of the FCC's ability to preempt or mandate that the states implement the Plan's mandatory provisions.<sup>102</sup>

First, with respect to the Plan's use of network edges to define interconnection, they argue that the FCC may mandate the Plan's approach to carrier interconnection because

Section 251(c)(2) requires an ILEC to provide other carriers with "interconnection...at any technically feasible point within the carrier's network." Nothing in the Plan denies any carrier the right of physical interconnection at any such point, and in fact, the Plan imposes a broad interconnection obligation on all carriers. Instead, the Plan merely defines the points in the terminating carrier's network at which the originating carrier can drop off traffic without incurring a separate transport charge. Indeed, defining such points is essential for any approach to prescribing the compensation terms for transport and termination of traffic.<sup>103</sup>

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<sup>102</sup> See *Missoula Plan, Policy and Legal Overview*. Filed with the FCC in CC Docket 01-92, July 24, 2006. Available at: [http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6518404368](http://gulfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518404368)

<sup>103</sup> *Ibid.*, p. 5.

Second, with respect to requirements that carriers pass along adequate call identification information, they argue that

...the Plan's provisions imposing various signaling obligations fall squarely within the [FCC]'s authority to facilitate appropriate jurisdictional characterization of traffic, including the diverse types of traffic that fall within the scope of the [FCC]'s rulemaking authority under sections 201 and 251 and the principles of *AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 377-80 (1999).<sup>104</sup>

Third, with respect to basing charges on the calling and called numbers, they argue that the FCC

...has full authority to implement the Plan's rules regarding the Jurisdictionalization of traffic for compensation purposes by, for example, relying on telephone numbers as proxies for the locations of each end of a call.<sup>105</sup>

Fourth, they argue that the FCC

... has full authority under section 201 and the principles of *Iowa Utilities Board*, 525 U.S. at 377-80, to implement section 252 to require all carriers to negotiate interconnection agreements, particularly when those agreements are critical to effectuation of the [FCC]'s substantive rules regarding intercarrier compensation.<sup>106</sup>

The Plan provides that states that refuse to implement the plan could not receive monies from the Early Adopter Fund and carriers in those states could not receive support from the Restructure Mechanism. The Plan's supporters argue that:

The federal government has broad authority to condition the extension of federal support on a State's adherence to the terms of a federal program.<sup>107</sup>

With respect to FCC jurisdiction over intrastate access rates, the Plan's supporters argue that

First, the [FCC] has direct jurisdiction under sections 201 and 251(b)(5) to reach all classes of intercarrier compensation within Tracks 1 and 2 except arguably for originating intrastate access. Second, the "impossibility" exception of *Louisiana Public Service Commission v. FCC*,

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<sup>104</sup> Ibid., p. 6, italics in original.

<sup>105</sup> Ibid.

<sup>106</sup> Ibid., p. 7.

<sup>107</sup> Ibid., p. 8.



476 U.S. 355 (1986) (“*Louisiana PSC*”),<sup>108</sup> independently authorizes the [FCC] to regulate intercarrier compensation for *all* classes of traffic to effectuate its responsibilities under sections 201 and 251.<sup>109</sup>

Before 1996, [Section 152(B)] was traditionally thought to fence the [FCC] off from regulating all jurisdictionally intrastate intercarrier compensation. Nonetheless, two developments have fundamentally altered the FCC’s jurisdictional role: first, its authority to implement rules for the transport and termination of traffic under the 1996 Act; and, second, the exponential growth of services (such as wireless and VoIP) for which jurisdictional distinctions are meaningless for all practical purposes....the [FCC] now has clear jurisdiction to prescribe intercarrier compensation rules for most major categories of traffic: interstate (sections 201 and 251(g)), intrastate transport and termination (section 251(b)(5)), wireless (section 332), and VoIP (section 201 ...).<sup>110</sup>

With respect to the Plan’s placing caps on access charges, the supporters note that

In *AT&T Corp. v. Iowa Utilities Board*, 525 U.S. 366, 377-86 (1999), the Supreme Court indicated that although the [FCC] has plenary authority to prescribe a *methodology* for intercarrier compensation, the States retain authority under sections 252(c)(2) and 252(d)(2) to prescribe actual rates for traffic subject to section 251(b)(5). Although the Supreme Court did not hold that the [FCC] would exceed its jurisdiction if it adopted rules capping those rates, the [FCC] should take steps to foreclose any claim that this aspect of the Plan usurps the States’ role under the 1996 Act.

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<sup>108</sup> The Plan’s supporters define the “impossibility” exception as “authorizing the [FCC] to regulate matters traditionally left to the States when such regulation is necessary to protect a valid federal regulatory objective. See *ibid.*, Attachment A, p. 5. It remains to be seen, however, whether the FCC’s interest in reforming interstate access rates creates a necessity to preempt state policy that might deviate from the FCC’s plan.

<sup>109</sup> *Ibid.*, Attachment A, p. 1., italics in original. The supporters note that they “urge the FCC eliminate the access charge regime that was carved out under section 251(g) of the Act with respect to access traffic originated or terminated by Track 3 carriers.” See *Ibid.*, Attachment A, n. 1.

<sup>110</sup> *Ibid.*, p. 4, citing Memorandum Opinion and Order, *Vonage Holdings Corporation, Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, 19 FCC Rcd 22404 (2004) (“*Vonage Order*”), *pets. for review pending sub nom. Minnesota Pub. Utils. Comm’n v. FCC*, Nos. 05-1069, *et. al.* (8th Cir. 2005).

Section 152(b) says, in part:

... nothing in this chapter shall be construed to apply or to give the [FCC] jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier ...  
47 U.S.C. 152(b).



...the [FCC] can and should forbear from the application of sections 252(c) and 252(d)(2) to the extent they would preclude the [FCC] from prescribing rate caps for intercarrier compensation involving Track 1 and 2 carriers. Such forbearance would create a statutory scheme in which only sections 201 and 251(b)(5), and not section 252, prescribe rules and procedures for determining intercarrier compensation.<sup>111</sup>

Nuechterlein and Weiser<sup>112</sup> also considered the legal question of FCC authority over intercarrier compensation. They argue that

The FCC has two explicit sources of authority for regulating intercarrier compensation: (i) its general authority under section 201 to regulate the terms and conditions of interstate and international services, and (ii) its more specific authority, under *Iowa Utilities Board*, to issue rules implementing the “reciprocal compensation” provision of section 251(b)(5). ...the strength of the FCC’s claim to reshape intercarrier compensation rules as it pleases varies with the kinds of telecommunications traffic at issue. For these purposes, there are three principal categories: (i) any traffic that might fall within the scope of section 201 but not section 251(b)(5); (ii) traffic that falls within the scope of section 251(b)(5), whether or not it also falls within the scope of section 201; and (iii) traffic that arguably falls outside the scope of both section 201 and section 251(b)(5).<sup>113</sup>

With respect to traffic that falls under section 201 but not under section 251(b)(5), they argue that

The FCC’s discretion to enforce its policy preferences is greatest as to the first category of traffic: any interstate or international long distance calls within the scope of section 201 but not section 251(b)(5). ... section 201 places few constraints on the substance of the FCC’s rules beyond the general requirements of “reasonableness” and adequate explanation.<sup>114</sup>

They also argue that the FCC has authority over reciprocal compensation for local traffic that falls under section 251(b)(5)

... After *Iowa Utilities Board*, there is no question that the FCC has statutory jurisdiction to set intercarrier compensation rules for local traffic

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<sup>111</sup> Ibid., p. 7, italics in original.

<sup>112</sup> Nuechterlein and Weiser, 2005, pp. 325-329. Though they were discussing the FCC’s ability to impose bill and keep, the discussion would also apply to the FCC’s ability to impose any regime.

<sup>113</sup> Ibid., p. 325.

<sup>114</sup> Ibid.

as part of its general authority to implement any substantive provision of the 1996 Act, even though the calls themselves are usually intrastate.<sup>115</sup>

With respect to intrastate access traffic, they find the weakest case for FCC authority. They believe that

...if section 251(b)(5) is assumed to apply only to “local” traffic, such intrastate access calls would also fall outside the scope of the [FCC’s] general authority to implement the local competition provisions under *Iowa Utilities Board*. As such, they would arguably fall within the scope of the “intrastate” matters that section [152(b)] still bars the FCC from regulating directly, sometimes even when such regulation is important to effectuating federal policies.<sup>116</sup>

They list ways the FCC might assert jurisdiction over intrastate access charges

First, it could reaffirm ambiguous suggestions it made in 2001 that, contrary to what it found in 1996, section 251(b)(5) encompasses not just “local” telecommunications, but all telecommunications.<sup>117</sup>

Nuechterlein and Weiser note that

...It is by no means clear, however, that the drafters of the 1996 Act meant to include “access” traffic within the scope of section 251(b)(5). ...section 251(b)(5) seems to have been written without ... access calls in mind.<sup>118</sup>

Finally, they suggest that the FCC might take an indirect approach by

...[invoking] its mandate under section 254 to bring greater rationality to universal service funding by forcing the states to strip implicit subsidies from any intercarrier charges.<sup>119</sup>

If the FCC adopts a plan that includes provisions for preemption of state jurisdiction, the matter is likely to be litigated. In sum, the FCC may not be able to sustain an assertion of jurisdiction over intrastate access charges. Should direct assertion of jurisdiction fail, the FCC might be able use the “carrot” to entice states into compliance or use the “stick” to coerce them into compliance. Indeed, provisions of whatever plan the FCC ultimately

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<sup>115</sup> Ibid., p. 326, emphasis in the original, notes omitted.

<sup>116</sup> Ibid., p. 328, emphasis in the original, notes omitted.

<sup>117</sup> Ibid., notes omitted.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid.

adopts are also likely to be litigated, and the ultimate outcome is difficult to foresee at this time.

### **Consumer Benefits and Costs of the Missoula Plan**

States will want to consider the impact of the Missoula Plan on customers. AT&T economists Richard Clarke and Thomas Makarewicz prepared an analysis of the net benefits of the plan for consumers.<sup>120</sup> A consideration of the net benefits is important, since consumers will face higher SLCs and increased universal service fees if the Plan is implemented.<sup>121</sup>

With respect to wireline consumers, their basic argument is that increases in consumer surplus resulting from lowered access charges will benefit consumers by saving them money on existing long-distance usage and induce additional long-distance usage via lower long-distance prices.

Clarke and Makarewicz assume that the Plan's reduction in access charges will be flowed through to consumers, allowing the incremental price of wireline long-distance minutes to decline by 1.433 cents per minute over the four-year phase-in of the Plan. This price reduction will, they estimate, result in an increase in wireline long-distance usage from 582 billion minutes per year to 744 billion minutes per year, an increase of 27.8 percent over four years.

They evaluate the value of the consumer surplus generated by this increase in usage and find that, net of the SLC increases and Restructure Mechanism charges, consumers will be better off by over \$1 billion per year by the fourth year of the Plan, with benefits growing in further years.

The analysis is relatively straightforward, given their assumptions as to the demand elasticity for long-distance service. However, there are several potential problems with the analysis:

- (1) They assume 100 percent flow-through of the decrease in access charges to incremental retail per minute long-distance rates. The mechanism that will cause this is not stated, but the underlying assumption seems to be that market forces will cause providers to pass their cost savings on to retail customers. This may, in fact, happen—FCC data show that the average interstate revenue per minute net

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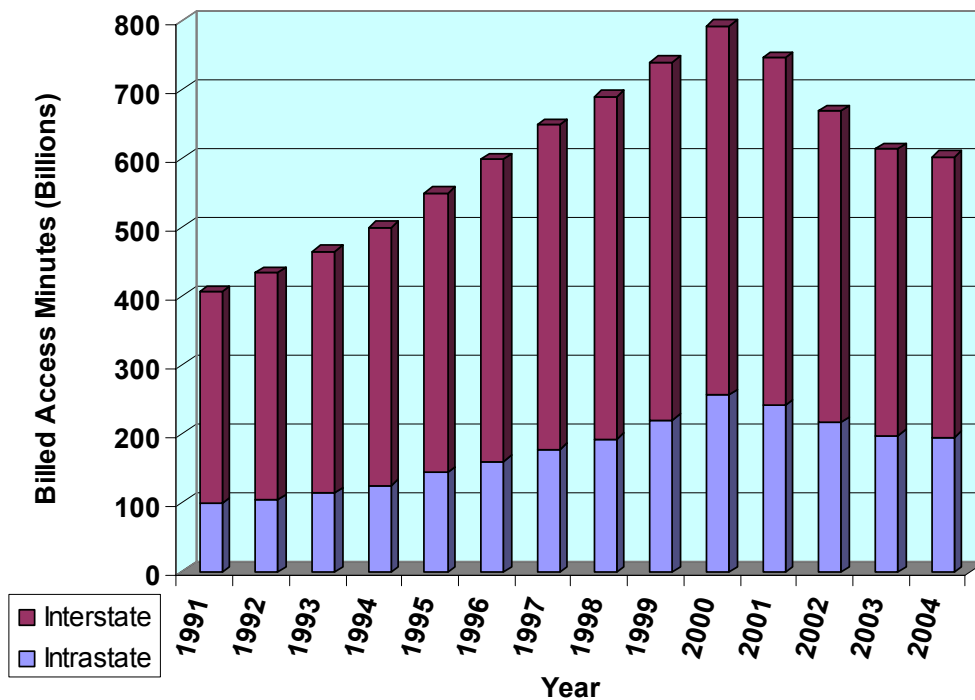
<sup>120</sup> Richard N. Clarke and Thomas J. Makarewicz, *Economic Benefits from Missoula Plan Reform of Intercarrier Compensation*, Missoula Plan, Exhibit 2, 18 July 2006.

<sup>121</sup> It might be argued that, even if there are no net benefits in a static sense (pure revenue neutrality), moving access charges closer to traffic-sensitive cost for the functions involved will produce efficiency gains that can translate into dynamic welfare gains as producers and consumers respond to more appropriate price signals. This was part of the motivation for previous access charge reform moves that eliminated the carrier common line charge and lowered per-minute access charges. Of course, even revenue neutral rebalancing of rates creates distributional shifts between categories of end users.

of access and universal service cost fell from nine cents in 1992 to five cents in 2003.<sup>122</sup>

- (2) Though they use a conventional estimate of the own-price demand elasticity for long-distance service of  $-.72$ , it is not at all clear that this estimate is reasonable under current demand conditions.

For example, FCC data show that total intrastate and interstate billed access minutes fell from a peak of 792 billion in 2000 to 602 billion in 2004, a decline of 24 percent during a time when long-distance prices were generally declining. Though there is little doubt that earlier reductions in access charges and the resulting decrease in long-distance rates did result in considerable growth in long-distance usage until 2000, it is by no means as clear or as likely that further reductions in wireline access charges and wireline long-distance rates will have a similar effect. Figure 13 shows the growth of billed access minutes from 1991 to 2000 and its decline thereafter.



Source: Federal and State Joint Board on Universal Service, 2005 *Universal Service Monitoring Report*, Table 8.3.

**Fig.13.** Billed Access Minutes 1991-2004.

<sup>122</sup> See FCC, *Trends in Telephone Service*, released June 21, 2005, Table 13.4. Available at: [http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/IAD/trend605.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend605.pdf)

Much of the decline in long-distance usage since 2000 may be attributed to the growth of wireless subscribership and the substitution of wireless minutes for wireline long-distance minutes. Wireless subscribership grew from 101 million in 2000 to 181 million in 2004 and to 203 million at year-end 2005.<sup>123</sup> There are now more wireless subscribers than wireline connections, and the typical wireless “minute is a minute” pricing has erased the distinction between local and toll calls for many users. Moreover, people seem to have developed a clear preference for calling a person rather than a place; the personal phone has created a shift in the way people communicate with one another. Thus, it is not clear that elasticity estimates from a period with considerably less wireless substitution can be used to project the impact of access rate reductions on the future of wireline long-distance usage. Though reducing access charges will have some effect, it is questionable whether another cent and a half reduction in per-minute long-distance rates will stanch the decline and spur a major increase in wireline long-distance usage.

- (3) Ignoring the increases in universal service charges resulting from the Restructure Mechanism, if the SLC increases by \$3.50 per line, per month, and long-distance rates decrease by 1.433 cents per minute, only customers using in excess of 244 minutes (over four hours) of total wireline long distance per month before they would begin to see any net decrease in their total bill.

One wonders what proportion of residential customers use more than four hours of wireline long distance service per month. Since Lifeline subscribers will be protected from the SLC increase, they will definitely benefit from lower toll rates. Including the effect of funding the Restructure Mechanism, residential and business customers who use somewhat more than 244 hours of long-distance service per month will benefit. Consumers may also benefit if lower and more unified access rates lead wireline carriers to offer more and cheaper bundles of local and long-distance services.

Lower access charges and the resulting lower wireline long-distance rates will help make wireline service and wireline long-distance more attractive to consumers. This may slow the migration to wireless and VoIP services. At the same time, however, higher wireline SLCs will make it less attractive and may push more consumers to become wireless only or shift to VoIP service, which are not affected by the SLC increase. Moreover, to the extent that wireless and VoIP providers pass along lower intercarrier compensation charges, consumers may find the wireless only and VoIP options to be more attractive.

Clarke and Makarewicz also considered the effect on wireless customers (most of whom are also wireline subscribers). In this part of their analysis, they also assume that reductions in access charges will flow through to wireless subscribers. Presumably, CMRS providers will be able to offer larger bundles of minutes for current prices and/or the same bundles for a lower price. Also wireless subscribers are not affected by the

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<sup>123</sup> See FCC, *Local Telephone Competition: Status as of December 31, 2005*, July 2006, Table 14.

SLC increase, so the benefit of access rate reductions for them is clearer, assuming that the reductions flow through. They estimate a benefit of \$1.17 per month per subscriber. The flow through may not be immediate, however, since many wireless subscribers have fixed-term contracts and may not see the benefits until they resubscribe or change plans. Moreover, since wireless subscribership and usage are likely to be relatively sensitive to price decreases, it is possible that this will lead more consumers to drop their wireline service and become wireless only.

Overall, the analysis provided with the Plan indicates that many categories of users will have lower bills after the Plan is implemented.<sup>124</sup> However, low-usage customers (rural wireline, urban wireline, and wireless) end up paying more in total. Customers who use multiple services, including broadband, will see reduced total bills. Heavy long-distance users, including many business customers, will likely benefit relatively more than low and moderate users.

As for the costs of the Plan, the supporters provided estimates of the various cash flows involved in implementing the plan.<sup>125</sup> Analysts from AT&T and from the Rural Alliance did separate estimates. Though there was some difference between the estimates, the supporters chose \$1.5 billion per year as the best estimate of the size of the restructure mechanism at the final phase of the plan.<sup>126</sup> If the Restructure Mechanism is treated as part of universal service, it would result in nearly a 40 percent increase in the size of the High Cost Program, which disbursed \$3.8 billion in 2005. It represents an increase in total federal universal service support of about 23 percent of the 2005 total of \$6.52 billion.<sup>127</sup> The Plan also provides for a \$200 million Early Adopter Fund, increases in Lifeline support, and some changes to the Safety Valve Support Mechanism that, in total, put the estimated cost of the Plan (exclusive of SLC increases) at \$2.225 billion when fully implemented.

The AT&T estimate, which was based on 2004 volume, was that ILECs' total annual switched access revenues are about \$8.9 billion. If the Plan is adopted, these revenues would decline by nearly \$6 billion. Lost access revenues would be offset by \$4.7 billion in additional SLC revenue and \$1.3 billion from the Restructure Mechanism — \$320 million for Track 1 carriers, \$548 million for Track 2 carriers, \$458 million for Track 3 carriers, and an estimated \$125 million CLECs.<sup>128</sup>

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<sup>124</sup> See *Missoula Plan*, Exhibit 1.

<sup>125</sup> See *Missoula Plan*, Appendix D, "Modeling the Impact of Intercarrier Compensation Reform."

<sup>126</sup> *Ibid.*, p. 99.

<sup>127</sup> See Universal Service Administrative Company, *2005 Annual Report*, p. 7. Available at: <http://www.usac.org/res/documents/about/pdf/annual-report-2005.pdf> Note that previous access charge reform plans (the CALLS and MAG Plans) also resulted in significant increases in the universal service fund. See Rosenberg, Pérez-Chavolla, and Liu, 2006.

<sup>128</sup> See *Missoula Plan*, p. 100.

In a static sense, the Plan assumes approximate revenue neutrality, although the way in which the revenues are collected changes considerably. Though not generally described as a bill and keep approach, the Plan does have some bill and keep features, since it shifts recovery of over 50 percent of LEC network costs towards end users as SLC increases and away from other carriers. To the extent that they are able to implement the SLC increases, each ILEC will collect more of its network costs from its customers. To the extent that they receive Restructure Mechanism payments, LECs will be imposing costs on their customers as well as on other carriers' customers.<sup>129</sup>

## Other Considerations

### *Effects of Raising and Possibly Deaveraging the SLC*

The Plan calls for further increases in the average SLC, possibly to \$10 per-line, per month for Track 1 carriers and \$8.75 for others. If, in addition to raising the average, carriers are allowed to deaverage the SLC, customers in rural areas might be faced with larger increases. Under the Plan, Restructure Mechanism payments to carriers will be based on imputation of SLC revenue assuming that the SLC is at the cap for the specific carrier. Nevertheless, some ILECs may be reluctant to raise their SLCs up to the cap for fear of losing customers to competitive platforms. For a given decrease in access charges, lower SLC increases raise consumer benefits. However, to the extent that carriers can deaverage their SLCs, varying them across study areas so long as individual SLCs do not exceed the cap, there might be some concern that consumers in areas with less competition will face larger SLC increases than customers in more competitive areas.

### *Effect on Interconnection Agreements and on Access/Local and Intrastate/Interstate Traffic Disputes*

Because the Plan has a default framework for interconnection and rules for determining whether access or reciprocal compensation rules would apply, many disputes that come before state commissions may disappear.<sup>130</sup> In addition, traffic identification rules would reduce the volume of phantom traffic. Finally, by unifying and lowering most intercarrier

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<sup>129</sup> The current access charge regime collects from other carriers, who recover them from their customers.

<sup>130</sup> Nuechterlein and Weiser (2005, pp. 304-305) note that disputes may involve the direction of payment flows as well as the amount of intercarrier compensation due for a call. If a VoIP customer makes an IP to PSTN call using a virtual FX number, there might be a dispute as to whether access or reciprocal compensation should apply. However, if a PSTN customer places a PSTN to IP call through a virtual FX number, a dispute might arise between the PSTN customer's LEC and the VoIP provider's CLEC partner. Because the call eventually goes outside its local calling areas, the LEC could assert that it should receive an originating access charge for the call. However, because the call goes to a local number, the CLEC could argue that, it should receive reciprocal compensation from the LEC. A unified set of rules and application of "the law of one price" — pricing equivalent network functions and services alike without regard to the type of traffic involved — would reduce, if not eliminate, these disputes.



compensation charges, the Plan would reduce the incentives and opportunities for arbitrage and reduce the resources devoted to detecting and correcting abuses.<sup>131</sup>

### *Effects on Universal Service*

Whether called universal service support or not, the Plan's Restructure Mechanism acts much like the Interstate Access Support and Interstate Common Line Support mechanisms. If funded similarly, the Restructure Mechanism would require an increase in the federal universal service surcharge, which is already in excess of ten percent of interstate and international revenues.<sup>132</sup> In addition, because Lifeline customers are protected from the SLC increases, Low-Income Support will also increase to cover the SLC increases assessed by carriers serving Lifeline customers. The effect of the reduction in intrastate access charges on state universal service funds and the interaction with the Early Adopter Fund is uncertain at this time. In some of the Plan's calculations a number- or connection-based mechanism was assumed for the federal Universal Service Fund. Regardless of whether the funding mechanism remains revenue-based or shifts to another base, total universal service support will rise.

### *Questions Concerning Carrier Accountability*

Access charges are a major component of IXCs' costs. If they are lowered, will there be mechanisms in place to ensure that the savings are flowed through to consumers?<sup>133</sup> Consumers will see SLC increases and likely increases in state and federal USF charges; they should also see reductions in long-distance rates. Also, states may want to ensure that the new higher level of access support is being used properly. As with any universal service program, it should be used to provide supported services. In addition, the FCC and states may want to monitor carriers for patterns of over-earning. Consistent excess earnings might be cause for reductions in Restructure Mechanism payments and reductions in universal service surcharges.

### *Linkages Between Intercarrier Compensation, Universal Service, and Separations Reform*<sup>134</sup>

As noted in Rosenberg, Pérez-Chavolla, and Liu (2006), both universal service and separations are in the process of their own revision or reform. Separations rules and high-cost support rules for rural carriers were set to expire on June 30, 2006, but they

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<sup>131</sup> This does not mean that there would be no gaming, arbitrage, or disputes; ingenious market participants will always seek ways to advantage themselves.

<sup>132</sup> The federal Universal Service program is already under considerable pressure, and numerous proposals for its reform are being considered. For more on universal service and reform proposals, see Rosenberg, Pérez-Chavolla, and Liu, 2006.

<sup>133</sup> As noted above, pass through was one component of the CALLS Plan.

<sup>134</sup> The majority of this discussion is excerpted from a memo on *High-Cost Issues: Separations, Universal Service and Intercarrier Compensation* by Peter Bluhm of the Vermont Public Service Board. Received June 19, 2006.



have been extended for the time being. Nevertheless, significant shifts in either of these policies will impact intercarrier compensation.

Separations factors (e.g., the explicit allocation of 25 percent of "loop costs" to the interstate jurisdiction and the resulting implicit allocation of the remaining 75 percent to the intrastate jurisdiction) were initially frozen until June 30, 2006. The freeze was set to expire on July 1, 2006. However, the freeze of the factors and the underlying plant and expense categories was recently extended on an interim basis for no more than three years to allow the "[FCC] and the [Separations] Joint Board to complete comprehensive reform of the jurisdictional separations process."<sup>135</sup>

The separations process divides ILEC investment and expenses ("costs") into interstate and intrastate portions. Separations consists of a two-step process: categorization and jurisdictional assignment to divide various plant and expense categories. The result is an intrastate component and an interstate component of both plant and expenses. Intrastate cost information is then used by states which have not adopted price caps or other forms of economic deregulation to determine intrastate revenue requirements, set rates and, in a few cases, allocate costs among customer classes. Interstate cost information is used by the FCC for various purposes, including establishing rates for "rate-of-return" carriers.

In the interstate jurisdiction, smaller "rate-of-return" carriers use cost separation rules to determine their costs and their interstate access rates. Carriers not participating in pools charge these rates directly. However, most smaller carriers still participate in the NECA pools, and these carriers charge uniform, industry-wide rates. Nevertheless, for pooled and unpooled "rate-of-return" carriers alike, separations controls the amount of interstate costs, which then controls both per-minute "switched access" rates and "special access" rates.<sup>136</sup>

Many large carriers are on "price cap" regulation. For these carriers, access rates generally do not depend on annual cost separations calculations.<sup>137</sup> However, FCC rules leave in place two ways in which separations rules can affect rates of price cap carriers. First, rates can be changed for "exogenous" factors if there are changes to separations rules.<sup>138</sup> Second, rates can also be adjusted for "exogenous" factors if a

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<sup>135</sup> See FCC 06-70, *Order and Further Notice of Further Rulemaking* in CC Docket No. 80-286, In the Matter of Separations and Referral to the Federal-State Joint Board, released May 16, 2006, para. 16.

<sup>136</sup> NECA operates two different pools, a common-line pool and a traffic-sensitive pool. Each has separately identified costs, and each produces separate rates. The allocation of a carrier's overall costs into the two pools also relies on separations categories defined in Part 36 of the FCC's Rules (47 C.F.R. 36).

<sup>137</sup> See 47 C.F.R. 69.152(d)(1). SLCs are also set by a formula that is not dependent on current separations results.

<sup>138</sup> See 47 C.F.R. 61.45(b), (d)(1)(iii). Exogenous changes, including separations changes, can also produce modifications to SLCs for any carrier not already charging the maximum SLC. See 47 C.F.R. 69.104(n)-(p).

carrier has low interstate earnings.<sup>139</sup> Separated costs are the starting point for calculating interstate earnings.

Most state commissions have legal authority to set local exchange rates and intrastate access rates. Separations rules determine the components of the intrastate revenue requirement for these companies, and state commissions generally determine the mixture of rates, allocating intrastate revenue requirements between subscriber charges and intercarrier charges. Moreover, in some states intrastate access rates remain high, particularly for smaller carriers.

State commissions have had little incentive to reduce access rates because substantial access revenues are recovered from the national pool of toll users and not from customers within their state. High intrastate access rates thus effectively export a share of LEC cost recovery to customers outside the state's jurisdiction, since toll providers who pay these access charges cannot deaverage their own retail rates.<sup>140</sup> Any separations decision that assigns more costs to the state jurisdiction strengthens the incentive for state commissions to use this mechanism.

### **Comments on the Plan and Stakeholder Positions**

The Missoula Plan was discussed in several sessions at NARUC's Summer Committee Meetings in San Francisco, California in July 2006. The Staff Subcommittee on Telecommunications had a discussion of the Plan, and there were presentations to both the Staff Subcommittee and to the Committee on Telecommunications. We present the following comments and stakeholder positions regarding the Plan. We present these for information purposes and to further discussion of the Plan; we do not endorse or support any of the positions represented.

#### *Comments from NARUC's July 2006 Summer Committee Meetings*

The following are some of the comments on the Plan and concerns/questions raised at NARUC's July 2006 Summer Committee Meetings in San Francisco, California. Since the Plan had been available for only a few days, some of the comments reflect initial impressions.<sup>141</sup> Though many of the comments raise issues or criticize particular features of the Plan (or lack thereof), considerable admiration and appreciation was also expressed for the work involved in developing the Plan.

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<sup>139</sup> See 47 C.F.R. 61.45(b), (d)(1)(vii).

<sup>140</sup> See 47 U.S.C. 254(g).

<sup>141</sup> The following comments are based on author Rosenberg's notes from discussions of the Plan. He does not suggest that they represent an accurate transcript of the presentations, comments, and questions. Rather, they are his impressions of the discussion. The reason most of the comments expressed below identify concerns about the Plan is that many of the comments were made after presentations by the Plan's supporters.

Plan doesn't make things worse, but it could be better. The interconnection and phantom traffic arrangements are good – better than now.

The Early Adopter Fund is too small, and no mechanism was proposed.

The Plan exacerbates the rural carrier / rural area dichotomy. Tracks are company-based not area-based. The Plan doesn't address infrastructure needs in rural areas served by non-rural companies. It does expand the safety valve mechanism but is not comprehensive enough. The treatment of sale of exchanges should recognize investment needs. The Plan is generous to mid-size and rural carriers; there is no benchmarking of rates or earnings test to determine need for Restructure Mechanism support.

The SLC cap inflation adjustment after step 5 may conflict with price caps and not reflect cost decreases in telecom.

The Plan is a starting point; stakeholders took a shot at it.

Track 2 rates may not reflect cost. SLC deaveraging may lead to low SLCs in competitive areas and higher SLCs in non-competitive areas.

Should there be subsidies for Track 1 LECs? Toll rates are a non-issue for most people, so are the access charge reductions worth the SLC increase?

The Plan was developed by a diverse group. It is a comprehensive Plan, not an abstract exercise.

The Plan is not perfect, but it deals with arbitrage issues, reduces intrastate rates to cost-based interstate rates for Track 3 companies, ends disputes, and provides relative certainty. Rural ILECs want to move to broadband. Recovery of investment is an issue; the Plan allows movement to transitional future. Currently, high intrastate access rates keep rural ILECs from competing with the BOCs at the fringes.

After Step 4, when SLC caps increase at the rate of inflation, the Restructure Mechanism will decrease as SLC revenue increases. Also, if the phantom traffic solution results in more net access revenue, the Restructure Mechanism will decrease. The Plan doesn't assume any specific USF contribution mechanism, though some calculations assumed a number-based approach.

If the SLC is held constant, the Restructure Mechanism increases to \$4.5 billion; if the SLC cap increases by \$4.50, the Restructure Mechanism would be about \$1 billion. If one is raised, the other can be lowered. The Restructure Mechanism could be numbers or connections based; no specific mechanism need be assumed.

There is some concern over transiting rules and pricing. This is an essential function for ILECs, which are still linchpin networks. Competitors will be harmed if the transit rate is too high.

Is the Plan consistent with Chairman Martin's desire for no substantial increase in local rates or in the USF?

The Plan could result in a 32 percent increase in the High-Cost USF and a \$10.00 SLC cap for most carriers in Track 1. States with the lowest SLCs will be affected most. The benefits come from "new" USF contribution, but an increase in the USF would affect all consumers. The Plan takes \$6 billion out of intercarrier compensation and puts \$6.9 billion back in via SLC and RM. It's not a good deal for consumers. A public interest standard should be used, not the interest of particular companies. The Plan has no flow-through mechanism to ensure consumers benefit from access charge reductions. We must trust the market. The Plan fails the public interest test.

The plan subsidizes ILECs and may discourage new providers and technologies.

The Plan doesn't solve all problems, but is a beginning. It will bring intrastate and interstate access closer together. It is the beginning of the process, not the end.

The Plan won't end arbitrage, but will change the nature of the game. Transport obligation of unbalanced traffic could be gamed to get other carrier to pay for transport.

Rural ILECs say they need help to deploy broadband. Should wireless customers pay for it? Wireless builds without guarantee.

The ability to deaverage SLCs is an issue. There might be cross subsidy from non-competitive to competitive markets. Competitors that don't connect at an edge will pay more. This may effect interconnection agreements. There is no cap on transit rates. Plan could be simpler.

The SLC increases won't stick in market—wireless and VoIP have no SLCs. Competition may wring subsidies out of prices. The Plan's rules are default rules; carriers can negotiate other arrangements. If this isn't the final plan, it will be the chassis for it.

Should Track 1 customers pay higher SLCs given that they already pay higher rates than rural customers?

## *Stakeholder positions*

The authors solicited comments on the Plan from various stakeholders and groups. We have included the responses we received and used other public information to summarize some positions. As we receive more comments on the Plan, we will make them available on the NRRI website, [www.nrri.ohio-state.edu](http://www.nrri.ohio-state.edu). These comments should not be considered substitutes for the opinions that will be filed as comments at the FCC; they do, nevertheless, provide some insight into the initial reactions to the Plan by some stakeholders.

### *Multi-stakeholder*

A group of cable and CLEC providers, CTIA, and the National Association of State Utility Consumer Advocates (NASUCA) issued a press release opposing the Plan. Though they may disagree on specific issues, the opposition group indicated their concern that the Plan contains uneconomic regulatory distinctions and incentives for inefficiency.<sup>142</sup>

### Wireless — CTIA

CTIA - The Wireless Association requested that the FCC adopt reforms that promote consumer choice, efficiency, elimination of regulatory distinctions and administrative simplicity. CTIA believes that its “Mutually Efficient Traffic Exchange” (METE) proposal—a bill and keep approach—would achieve these goals.<sup>143</sup> With respect to arguments that ILECs need intercarrier compensation revenues to build broadband networks, CTIA believes that “intercarrier compensation is not intended to subsidize any carriers’ broadband build out. Rather, it is intended to compensate for the incremental cost of exchanging traffic with other carriers.”<sup>144</sup>

Other CTIA positions are: intercarrier compensation regimes that allow only rural ILECs to recover a majority of their costs from access charges and universal service discourage wireless carriers from competing in rural ILEC service areas and deny rural customers the benefits of competition; there should be only one SLC cap rather than a higher cap for Track 1 than for Track 2 and 3 carriers; proposals based on revenue neutrality for ILECs do not encourage and reward efficiency; mechanisms designed to replace lost access revenues should be portable across carriers to encourage entry and innovation, and access charges should be phased out over time in favor of bill and keep.

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<sup>142</sup> See *State Telephone Regulation Report* 14, no. 15, July 28, 2006, p. 2..

<sup>143</sup> CTIA, *Overview of Key Regulatory Issues*, Presentation to Commissioner Robert M. McDowell, July 10, 2006. [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6518398388](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518398388)

<sup>144</sup> CTIA, Letter to Marlene H. Dortch, Secretary, FCC, June 14, 2006, p. 3. [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6518359846](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6518359846)

## ILECs — CenturyTel

John Jones of CenturyTel provided the following comments on the Plan:

The Missoula Plan has many positive concepts and components. We appreciate the hard work and dedication that went into developing the Plan by all of the work group participants. AT&T should be recognized for their leadership and influence in developing the Missoula Plan.

CenturyTel participated in the development of the Missoula Plan but chose not to sign on to the FCC filing. CenturyTel's concerns regarding the Missoula Plan stem primarily from the impact on end users, the rapid transition period, and the Plan's inherent design whereby the majority of the benefits accrue to certain types of carriers. However, even though we have concerns, we are not opposed to the Plan. Our goal now will be to participate in the FCC process to seek needed modifications that were not incorporated in the small work group discussions.

- (1) Concerns About Customer Impacts: The Plan proposes increasing SLCs by \$2.25 for RLECs and \$3.50 for the RBOCs. We believe the artificially low access rates proposed in the Plan disproportionately benefit only certain carriers at the expense of end users. The Plan's rate design pushes too much intercarrier compensation to consumers by way of SLCs and the corresponding increase in the universal service surcharge to fund the restructure mechanism. The corresponding increase in the universal service surcharge alone could add more than an additional dollar to the consumers' bill each month. In our case, the majority of our residential rates in most states are already well over the proposed national average. Customers write one check for their phone bill. The SLC, long-distance charges, USF assessments, taxes and 911 charges are a very real part of their total cost of their service. We believe customers are sensitive to all of these price points. We should all be seeking a more balanced rate structure that ultimately spreads any reduced rates equally between carriers, the proposed Restructure Mechanism and consumers.
- (2) Issues with the Plan Architecture: The arbitrary distinction between Track 2 and Track 3 does not take into account that many mid size companies operate both rate of return and price cap lines. All rate-of-return lines should be in Track 3. The present plan says that if a mid size company operates price cap and rate of return lines, then all the lines default into Track 2. We believe this is arbitrary. One of the reasons we withdrew from the plan was the fact that no other major midsize carrier would sign on to support Track 2 despite significant outreach efforts by the Missoula Plan team.

Another area of concern is the transition time period recommended in the Plan. In many instances RLECs such as CenturyTel would have to cut to the new access rate structure in 24 months for terminating access and 36 months for originating access. This is simply too fast given the complexities of the plan and the artificially low access rate structure for Track 2.

After reviewing the Missoula Plan model, it appears that Track 2 companies are moving nearly as much to the access replacement fund as Tracks 1 and 3 combined.

We must have predictable viable compensation mechanisms under the plan. In light of certain members of Congress advocating a cap on universal service funding, we question the merit of agreeing to shift so much money to an access restructure mechanism / universal service fund that may not ever exist.

- (3) A More Reasonable Alternative Would be..... A more reasonable transition would be a five-year time period. There would be no harm in first aligning interstate access rates with intrastate access rates as the first step of a reform effort. This would allow the industry, consumers and regulators to evaluate the effects of the transition, make needed changes, and then proceed to a further alignment of all rates in a second phase of reform.

CenturyTel believes SLC increases should be limited to \$1.00 - \$1.50. Customers could then accommodate a lower SLC charge and shift less money into the restructure mechanism / fund with a more balanced access rate structure post reform.

- (4) Conclusion: CenturyTel is supportive of constructive intercarrier compensation reform. Unfortunately, the Missoula Plan in its present form falls somewhat short of achieving balanced reform that benefits consumers and all carriers. We look forward to working with the FCC, the states and the industry in completing the task of developing a viable reform plan.

#### Cable — Cox Communications

Doug Garrett of Cox Communications offered the following preliminary comments on the Plan.<sup>145</sup>

- (1) It provides for "revenue neutrality" for ILECs as access charges are reduced over several steps. This is particularly troubling for the Track 1 ILECs because their access revenues are being affected largely by their own actions, including the acquisition of AT&T and MCI, the stimulation of wireless substitution for long-distance minutes by their wireless affiliates and the growth in their only long-distance market share, and the voluntary reduction of originating access charges under the Plan terms. Further, the Restructure Mechanism now has no means for a CLEC to participate and be eligible for fund distribution, even if it is an ETC and/or serves eligible customers in the same geographic areas.

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<sup>145</sup> Doug Garrett, e-mail to Ed Rosenberg, August 7, 2006. Mr. Garrett notes that these are preliminary and subject to change.



- (2) The Transiting Service terms of the plan are unacceptable, because they set a national rate cap that is too high (\$.0025/mou) and a threshold for doubling that rate that is too low (400k MOU/month between two entities; that's only about 2 DS1s of traffic). The plan also calls for elimination of the price cap at Step 4 of the plan, presumptively deregulating rates for an essential function for which there is no other provider. The plan also calls for transit service to be included in "commercial agreements" which we believe to be an attempt to avoid the obligations for negotiation and arbitration under the Act. Commercial agreement with an ILEC is a euphemism for an adhesion contract where the terms are dictated on a "take it or leave it" basis.
- (3) The Plan calls for too much flexibility by incumbents to de-average or waive SLC charges. SLC charges under the Plan can be altered or waived by customer contract, by geography and by self-defined class of customer. This is an invitation to gamesmanship and manipulation by the ILECs and should not be permitted. SLC flexibility should be limited to waiving or charging differently only by entire customer class (i.e. residence or business) within a state or ILEC state service area.
- (4) Some of the network interconnection requirements for CLECs connecting to Track 2 or Track 3 ILECs are also of concern. Where current arrangements normally involve exchange of traffic with rural providers via a large ILEC tandem, the Plan creates an obligation to deliver traffic to the Track 2 or 3 carrier's edge, which may be geographically distant end office with a small amount of traffic, thereby creating network inefficiencies and an obligation to purchase transport from the ILEC, since it would be impractical to build facilities in such small quantities and there are almost certainly no alternate suppliers of transport. Notably, the plan leaves relatively undisturbed current EAS arrangements using the same facilities used to transmit CLEC traffic to the rural companies' exchange area.

Consumer Groups — National Association of State Utility Consumer Advocates (NASUCA)

Billy Jack Gregg, West Virginia Consumer Advocate, provided the following "Analysis of Deficiencies of the Missoula Plan".<sup>146</sup>

- (1) Advocates of the Missoula Plan claim that intercarrier compensation (ICC) rates need to be unified to reduce arbitrage opportunities. At the end of the day, the Missoula Plan doesn't result in unified rates. The greatest disparity in ICC rates today exists within Track 3 (rural carriers). This is not solved by the Plan. Under the Missoula Plan there still exists a great disparity in rates between tracks and within Track 3.<sup>147</sup> Track 3 ICC rates are only unified at the company level; there is no

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<sup>146</sup> Billy Jack Gregg, e-mail to Ed Rosenberg, August 10, 2006.

<sup>147</sup> The average Track 2 target rate of \$0.01 per minute of use (MOU) is twenty (20) times higher than the Track 1 target rate of \$0.0005 per MOU. The Track 3 average rate of \$0.018 per MOU is thirty-six (36) times higher than Track 1 and is made up of a different target rate for each rural company. The individual company rates range from \$0.003 per MOU to \$0.089 per MOU.

national target rate. In fact, the Missoula Plan allows some interstate Track 3 rates to rise. As a result, opportunities for arbitrage of ICC rates will continue to abound.

- (2) The Missoula Plan favors legacy landline companies at the expense of other telecommunications providers and consumers. ICC revenues of legacy landline companies have been declining at five percent per year. However, Missoula Plan freezes ICC revenues at past year level and ensures recovery of these revenues from other telecom providers (through increased USF contributions) and consumers (through higher SLCs and USF contributions). In essence, the Missoula Plan becomes a revenue preservation mechanism for the legacy landline companies, insulating ICC revenues from competition.
- (3) There is no sharing of the burden of reducing ICC rates between carriers and consumers. Legacy landline carriers ensure that they are made whole and the entire burden ultimately falls on end users. Under Missoula Plan ICC rates are reduced \$6 billion, while end user rates go up \$6.9 billion: \$4.7 billion increase in the SLC; \$1.5 billion increase in USF (Restructure Mechanism); \$0.225 billion increase in Low Income Fund; \$0.3 billion increase in High Cost Loop Fund; and \$0.2 billion for Early Adopter Fund.
- (4) The Missoula Plan does not require any pass through of reductions in ICC rates to end users. Although the Plan calls for reduction in ICC rates of \$6 billion over four years - principally to long-distance carriers - there is no guarantee that these reductions will find their way to customers. This is especially true since the long-distance industry has virtually ceased to exist as an independent, highly competitive market, and major long-distance providers have been acquired by legacy landline companies SBC and Verizon.
- (5) The Missoula Plan improperly preempts the authority of the states over intrastate ICC rates. Although the Plan is cast as having "optional elements," the basis of the plan is complete FCC preemption of authority over ICC rates, both interstate and intrastate. There is no basis in law for such an abrogation of power. Sections 152(b) and 251(d)(3) of the Telecom Act specifically reserve to the States authority over in-state rates.
- (6) The basis of the Restructure Mechanism contained in Missoula Plan is opaque, and the supporters of the Plan cannot even agree on its foundation. If the basis is Sections 201 and 251 of the Telecom Act (interconnection), then there is no authority to assess other carriers to pay for lost revenue. If the basis is Section 254 of the Telecom Act (USF), then equal support must be provided to CETCs, ballooning the estimates of the cost of the Plan.
- (7) Increases in the USF under the Missoula Plan are improper. Rebasement of the cap on the High Cost Loop Fund has nothing to do with ICC reform except as a bribe to get rural carrier support. Moreover, the estimated \$0.3 billion increase in the High Cost Loop Fund is understated since it does not include equal payments to CETCs. The addition of \$0.225 billion to the USF for increased Low Income Support is improper

since it amounts to a double count. Even assuming that \$6 billion is the correct ICC replacement target, it should not require recovery of \$6.225 billion to account for Low Income Support.

- (8) The \$0.2 billion estimate for the Early Adopter Fund is laughably inadequate. If the Missoula Plan truly intends to recompense states for past actions to reduce access, the Early Adopter Fund is likely to increase tenfold.
- (9) The increase in the USF required by the Missoula Plan is unsustainable. The current USF amounts to \$7 billion a year and the USF assessment factor is over 10 percent. Adoption of the Missoula Plan would result in a 32 percent increase in the entire USF, from \$7 billion to \$9.225 billion, with a concomitant increase in the assessment factor. A more realistic view of the increases required by the Plan would result in an even higher USF.
- (10) Consumer savings claimed by the proponents of the Missoula Plan are spurious. Exhibit 1 to the Executive Summary of the Plan, which shows savings to most consumers, is totally deceptive and misleading. All savings are based on 100 percent flow through of access reductions to end user long-distance rates, and adoption of a radically different USF assessment system, the basis of which is not revealed. Taking the Missoula Plan exactly as written (no flow through of savings, 32 percent increase in USF), and applying it to the current system of USF, results in increases in bills for all customers.
- (11) Under the Missoula Plan, all SLCs for Track 1 companies (88 percent of all lines in the United States) may increase to \$10 in the fifth step of the Plan, and rise by the rate of inflation thereafter, regardless of the revenue loss caused by reductions in ICC rates. This amounts to backdoor deregulation of local rates and unjust enrichment of legacy landline companies. The increase in the SLC to \$10 and above will most impact rural customers in states with low SLCs currently, such as California and Iowa. The SLC will rise from \$3.84 to \$10.00 in the District of Columbia.

## **Summary**

The Missoula Plan is complex and controversial — it covers intercarrier compensation and interconnection, and it impacts universal service. It represents a major shift in policy and will affect providers and consumers in all areas of the country. If the Missoula Plan or something similar to it is adopted, many of the problems associated with the current system will be addressed. However, as identified above, there are issues state commissions may want to consider in preparing their responses to the Plan. Though the Plan's supporters have outlined what they believe are legal justifications for the FCC to impose a unified national intercarrier compensation regime, it is not certain that such preemption of state authority with respect to intrastate access charges will be sustained.

The Plan's supporters believe that it will provide significant benefits to consumers in the form of lower bills in many instances, but there may be reason to be cautious about the size of the benefits for many residential wireline subscribers. What is certain is that, if adopted, the Missoula Plan will shift the way carriers recover their network costs. The shift will be towards more direct recovery from end users via SLC increases and towards more indirect recovery from end users generally via the Restructure Mechanism. Moreover, the Plan may be viewed as transitional, since it calls for further FCC review to determine whether modification is needed.

The Plan is the product of a long process that entailed considerable effort and many compromises by stakeholders — it has been said that none of the supporters got everything they wanted in the Plan. Thus, it is no surprise that the Plan has both supporters and critics and has generated controversy. State commissions may differ in their evaluations of it. Nonetheless, it is an operational plan that is on the table. The process will continue as state commissions and others comment on the Plan, and the FCC begins its deliberation.



## APPENDICES

- A. Glossary**
- B. Acronyms**
- C. Relevant Sections Of The Telecommunications Act And FCC Rules**
- D. Summary of Plans Submitted in CC Docket 01-92**
- E. References**





## APPENDIX A

### GLOSSARY<sup>148</sup>

**Access Charges:** Wholesale rates paid by a long-distance company to a local telephone company(ies) for the use of the local network to originate or terminate a call. The access charges are recovered through the rates charged to customers for long-distance calls.

**Access Line:** Physical telecommunications circuit that connects an end user location with the serving central office in a local network environment. It is also called the local loop or "last mile." These are lines for which the SLC is assessed.

**Access Shift:** The difference between switched access revenues under the Missoula Plan and current switched access revenues. The total access shift is the reduction in switched access revenue. The access shift per line is calculated by dividing the total access shift by the number of switched access lines.

**Access Tandem:** Building location with a carrier switch that establishes trunk-to-trunk connections between designated end office switches operated by the tandem owner and long-distance providers for the routing of interstate and intrastate interexchange traffic. Access tandems have point codes and are listed in the LERG, or any successor or alternate guide with a unique CLLI Code and the designated end office switches they serve for routing purposes.

**Access Traffic:** Traffic between two wireline carriers in any of the following scenarios:

- (1) the calling telephone number and the called telephone number are associated with different rate centers and the rate centers are not in the same reciprocal compensation local calling area;
- (2) the called telephone number is an 8YY call for which a POTS routable telephone number is returned from the 800 database and that telephone number is associated with a rate center that is not located in the same reciprocal compensation local calling area as the calling telephone number;<sup>149</sup>

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<sup>148</sup> Sources: *Missoula Plan*, July 18, 2006; BestKnows, <http://en.mimi.hu/telecom/>; Dev Shed, <http://www.devshed.com>; The Free Dictionary <http://computing-dictionary.thefreedictionary.com/>; *Webopedia*, [www.webopedia.com/](http://www.webopedia.com/); *Newton's Telecom Dictionary*; Wikipedia, <http://en.wikipedia.org/wiki/BBnow>, [www.bbnow.co.uk/helpandsupport\\_glossary.htm](http://www.bbnow.co.uk/helpandsupport_glossary.htm)

<sup>149</sup> 8YY calls for which a POTS routable telephone number is returned from the 800 database that is associated with a rate center located in the same reciprocal compensation local calling area as the calling telephone number are *not* considered access traffic.

- (3) the called telephone number is an 8YY call for which a POTS routable telephone number is not returned from the 800 database or is a call type that does not rely upon a geographically-based telephone number convention, e.g., 900 traffic.

Traffic from a wireline provider to a CMRS provider is considered access traffic in either of the following scenarios:

- (1) the calling telephone number of the wireline subscriber and the called telephone number of the wireless subscriber are associated with different rate centers within the same MTA, and an IXC (whether or not affiliated with the wireline carrier) has the retail toll service relationship with the calling party;
- (2) the calling telephone number of the wireline subscriber and the called telephone number of the wireless subscriber are associated with different rate centers in different MTAs.

**Call Origination:** The wholesale service that allows an end user to set up a communication under a contractual relationship with a service provider, when the connected user is not physically connected to the service provider.

**Call Origination Charges:** Fees charged from another telecom operator for the use of a telephone network when a call originates from telecom operator's network to another operator's network.

**Called Telephone Number:** Telephone number dialed by the end user that originated the call.

**Calling Telephone Number:** Telephone number assigned to the end user that originates the call.

**Carrier:** Any telecommunications carrier, as defined in 47 U.S.C. § 153(44), regardless of whether it offers telecommunications services on a retail basis, a wholesale basis or both.

**Carrier Common Line Access Charge:** Recovers a carrier's costs in providing the telephone lines (also known as local loops) used for making or receiving toll or long-distance calls.

**CLLI Code:** A CLLI (Common Language Location Identification) Code is an eleven character alphanumeric descriptor used to identify switches, points of interconnection, and other categories of telephony network elements and their locations. These codes are stored in a national database maintained by Telcordia.

**Collocation:** The placement of in-service, customer telecommunications equipment used by long-distance or competitive access providers in the same physical location (central office, point of presence, or other network location) as the local telephone company's equipment.

**Communications Service Provider (Provider):** For purposes of the Plan, is a carrier or non-carrier that provides a service to an end user or another communications service provider from which traffic is exchanged, directly or indirectly, with the PSTN.

**Covered Rural Telephone Company (CRTC):** An ILEC that, excluding those exchanges that are subject to the provisions for after-acquired exchanges,

1. Is an ILEC in that particular study area as of August 1 2006;
2. Meets the definition of a "Rural Telephone Company" in Section 3(37) of the Communications Act of 1934, as amended, 47 U.S.C. § 153(37), and is not a Bell Operating Company or affiliate thereof, and, in such study areas, serves fewer than one million access lines; or
3. In all study areas it holds on day one of the Plan as an ILEC if, as of August 1, 2006, the carrier qualifies as a "two percent carrier" under the criteria established in Section 251(f)(2) of the Communications Act, 47 U.S.C. § 251(f)(2) and
  - a. Has a holding company average of fewer than 19 switched access end user common lines per square mile, OR
  - b. Has "Interstate Regulated" Rate of Return Non-Rural study areas that select incentive regulation by December 31, 2006, as set in Section VII of the Plan.

A CRTC will not be treated as a CRTC with respect to customers it serves outside its ILEC serving area, operating as a CLEC or other type of carrier. However, a CRTC will be treated as a CRTC for a study area when ordered to serve it because of it is being underserved, or for customers it serves outside its ILEC serving area if the ILEC began serving these customers prior to FCC's adoption of the Plan, and does not hold a CLEC certificate for those lines. CRTCs will retain their CRTC status in the study areas they originally qualify for this status as of August 1, 2006 even if they acquire exchanges from other carriers or other carriers *in toto*.

In general, study areas qualified as CRTC exchanges on day one of the Plan retain their designation, regardless of changes in ILEC ownership or control. However, if the individual transaction in which such CRTC exchanges are acquired put the acquiring CRTC over the "two-percent carrier" threshold, such specific after-acquired exchanges will not be treated as CRTCs. When a series of transactions over a 12-month period would collectively put the acquiring CRTC over the "two-percent carrier" threshold, the FCC would need to review such transactions to determine if the acquired exchanges should be treated as CTRC exchanges. Non-CRTC exchanges will remain under their non-CRTC classification even if acquired by a CRCT. CRTC exchanges and companies acquired by a non-CTRRC lose their CRTC status.

**Digital Cross-Connect System (DCS):** A digital switching and multiplexing system that continuously directs and manages traffic from a multiplicity of sources at different speeds. Telecom carriers use it to switch and multiplex low-speed voice and data signals onto high-speed lines and vice versa. DCS are also used to aggregate several

T1 lines into a higher-speed electrical or optical line, as well as distribute signals to various destinations. Narrowband, wideband and broadband cross-connects support channels down to DS0, DS1 and DS3 respectively.

**Digital System Level 3 (DS-3):** Technology used for T3 lines that allows connections to the Internet at speeds of up to 44.736 megabits per second in both directions. DS3 signals are almost exclusively used within buildings, for interconnections and as an intermediate step before being multiplexed onto a SONET circuit.

**Direct Interconnection:** Physical linkage of two carrier networks for the exchange of traffic.

**Early Adopter Fund:** Conceived as a mechanism for States to recover a portion of the state funds used to compensate carriers for rebalancing their intrastate access rates prior to the Plan's adoption. Its goal is to reduce the size of such explicit state funding mechanisms and its funding can only be used for this specific purpose. The Fund's minimum size has been estimated at \$200 million.

**Edge:** Location on a carrier's network—be it an end office switch or an equivalent facility—where a carrier receives traffic for routing within its network and where it performs the termination function for traffic received from other carriers. For the Missoula Plan, remotes that are not capable of establishing trunking with other carriers for traffic exchange cannot be defined as Edges.

**End Office (wireline carriers):** Building location with a carrier switch to which multiple unaffiliated telephone service subscribers access lines are connected. These offices represent the last switch at which the interconnecting carrier can establish trunking for exchanging traffic. End offices provide line-to-line, line-to-trunk, trunk-to-line connections for the transmission and routing of local and toll traffic, as well as provide signaling functions, such as providing dial tone to the subscriber, call origination and call termination functions. End offices are listed in a NPA-NXX Codes list, such as the LERG, and assigned a LRN. End offices using SS-7 signalling must have an assigned point code.

**Fiber Optic Cable Termination:** Termination of fiber optic strands to a digital cross-connect system (DCS) or comparable device establishing optical continuity with the other carrier.

**Indirect Interconnection:** The use of a third party tandem transit service to interconnect two networks.

**Interconnection:** Establishing physical links between carrier networks for traffic exchange.

**ISP-bound Traffic:** For the purpose of the Plan, there shall be a rebuttable presumption that traffic that qualifies as ISP-bound traffic pursuant to the FCC's ISP-Bound Traffic Framework on a per-carrier, per-state basis, shall be identified as ISP-bound traffic.

**Local Switching Access Charge:** Recovers costs associated with end office switching equipment.

**Local Tandem:** Building location with a carrier switch that establishes trunk-to-trunk connections for the routing and transport of terminating traffic subject to §251(b)(5) and ISP-bound traffic to designated end office switches operated by the tandem owner. Local tandems have point codes and are listed in the LERG, or any successor or alternate guide with a unique CLLI Code and the designated end office switches they serve for routing purposes.

**Local Transport Access Charge:** Recovers costs associated with the circuit termination equipment and facilities between a carrier's end offices and the interexchange carrier's point of presence.

**Meet Point:** Interconnection point between the two networks at which one carrier's responsibility for providing the facility to connect the networks begins and the other carrier's responsibility ends.

**Meet Point Interconnection Arrangement:** A physical interconnection arrangement between two carriers where each carrier builds and maintains its transport facility to a meet point. Refers to a fiber-based arrangement or, if not available, to the same type of facility used for the ILEC-to-ILEC meet point arrangement in the exchange area. Also known as Mid-span meet points.

**Metropolitan Trading Area (MTA):** A geographic metro area of population and economic integration defined by Rand McNally's Commercial Atlas. The FCC used the 51 U.S. MTAs as the boundaries for the PCS (1900 MHz) radio frequency licenses that were auctioned in the mid-1990s. Each MTA consists of several Basic Trading Areas (BTAs), which are several contiguous counties.

**Mobile Switching Center (MSC) (CMRS providers):** Building location with a carrier switch to which multiple unaffiliated CMRS (including paging) subscribers are provided network connectivity via mobile base stations. Like the end office, the MSC is the last switch at which another carrier can establish trunking for exchanging traffic with CMRS subscribers. With the exception of MSCs used to provide one-way paging services, MSCs are listed in a NPA-NXX Codes list, such as the LERG, and assigned a LRN.

**Multiple Exchange Carrier Access Billing (MECAB) Process:** Governs the provision of call-detail information for jointly provided switched access traffic, that is, traffic exchanged between IXCs and multiple local exchange carriers.

**Non-Access Traffic:** For the purpose of the Missoula Plan, at Step 1, ISP-bound traffic and traffic currently subject to reciprocal compensation charges will be considered non-access traffic. Once terminating charges for Track 1 and 2 carriers are unified, terminating traffic formerly subject to access charges will be considered non-access traffic under the Plan.

**Non-CRTC Study Area:** A study area where the ILEC does not qualify as a Rural Telephone Company under 47 U.S.C. § 153(37).

**Non-Ordering Carrier:** Carrier that is indirectly connected to the Ordering Carrier through the Tandem Transit Provider.

**Ordering Carrier:** In the context of Tandem Transit Service and for the purpose of the Plan, the carrier that has a financial obligation for transport when it uses Tandem Transit Service to satisfy its transport obligation. The Ordering Carrier is not necessarily the originating carrier. For example, if the originating carrier is a CRTC entitled to the Rural Transport Rule, the terminating carrier may be the Ordering Carrier.

**Origination:** Applies to the caller's end of the public switched network.

**Out-of-balance traffic:** All Non-Access Traffic that exceeds a 3:1 termination to origination ratio between two carriers, regardless of whether it is ISP-bound traffic.

**Phantom Traffic:** Calls that lack sufficient signaling information to enable intermediate and terminating providers to properly bill the originating provider for intercarrier compensation.

**Point of Interconnection:** A specific network site, such as a cross-connect device, where two carriers physically interconnect their networks for the exchange of traffic. A POI has often served as the network demarcation where one carrier's obligation for providing the transport facility stops and the other carrier's obligation for the facility begins.

**Point of Presence (POP):** Building space owned or controlled by the carrier, its agent or designee, where the carrier has located transmission facilities used to virtually extend switching capacity or Trunking Media Gateway functionality from one LATA to another LATA or serving area, or, in the case of carriers electing to eliminate originating switched access charges, where the IXC carrier has located transmission facilities and to which an ILEC is providing switched access services as of the date of adoption of the F order establishing the Missoula Plan. An IXC POP performing termination functions (as in the case of terminating nodal services) will be treated as CLEC for purposes of interconnection and reciprocal compensation.



**Reciprocal Compensation Local Calling Area:** A local calling area established by a state commission for the purpose of identifying traffic subject to 47 U.S.C. § 251(b)(5). In the absence of a clear rule specifying a uniform local calling area for all carriers, the incumbent's retail local calling area will apply.

**Restructure Mechanism (RM):** Revenue recovery mechanism that partially offsets the losses incurred for reductions in intercarrier compensation. Its payments are equal to the reduction in switched access revenues under the Plan (the *total access shift*) minus the increase in SLC revenue. The size of the RM is estimated by the Plan's supporters to be an average of \$1.5 billion at the end of the four year transition period, which includes an estimate for distributions to CLECs.

**Rural Telephone Company:** Section 3(37) of the Communications Act, 47 U.S.C. § 153(37), defines it as a local exchange carrier that provides common carrier service to any local exchange carrier study area that does not include either: any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or any territory, incorporated or unincorporated, included in an urbanized area, as defined by the Bureau of the Census as of August 10, 1993; provides telephone exchange service, including exchange access, to fewer than 50,000 access lines; provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996.

**Special access:** Involve the use of dedicated non-switched circuits between customer locations.

**Study Area:** The Missoula Plan does not provide a definition of study area. However, Part 36 Appendix-Glossary of the FCC's Rules defines it as a geographic segment of an ILEC's telephone operations. Generally, a study area corresponds to an ILEC's entire service territory within a state. ILECs operating in more than one state typically have one study area for each state, and ILECs operating in a single state typically have a single study area. For the purpose of universal service support, FCC allowed rural carriers to disaggregate below the study area level to ensure that per-line level of support would be more closely associated with the cost of providing services.<sup>150</sup> In determining the number of loops in a study area, study areas sharing a common host switch shall be treated as a single study area.

**Switched Access:** Uses a carrier's local exchange network to transport switched traffic between end users and Interexchange Carriers (IXCs), wireless carriers or Competitive Local Exchange Carriers (CLECs).

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<sup>150</sup> FCC Fourteenth Report And Order, Twenty-Second Order On Reconsideration, And Further Notice Of Proposed Rulemaking In CC Docket No. 96-45, and Report And Order In CC Docket No. 00-256, released May 23, 2001.



**Tandem Transit Provider:** Carrier that provides the Tandem Transit Service to indirectly interconnect the Ordering Carrier with the Non-Ordering Carrier. It may be an ILEC or a competitive carrier.

**Tandem Transit Service:** A switched transport service provided by a third party carrier using its tandem switch to effectuate indirect interconnection between two carriers within a LATA (or in Alaska, within a local calling area). It includes both tandem switching and tandem switched transport (also called common transport), or the functional equivalent, between the transit tandem location and a terminating carrier's Edge. Where the terminating carrier is an ILEC and the Tandem Transit Provider interconnects with the ILEC at a meet point, Tandem Transit Service stops at that meet point.

**Terminating Carrier:** Carrier responsible for a NPA-NXX or LRN at its designated Edge for delivery to the called party, that is, the terminating carrier or its assignee (Edge operator/owner). A reseller can be a Terminating Carrier if it adopts the Edges of the underlying carrier. An IXC POP performing termination functions (as in the case of terminating nodal services) will be treated as CLEC for purposes of interconnection and reciprocal compensation.

**Terminating Reciprocal Compensation Charges:** Apply when the telephone numbers of the calling party and of the called party are associated with rate centers that are in the same reciprocal compensation local calling area, or, in the case of traffic between a CMRS carrier and a LEC, to telephone numbers associated with rate centers within the same MTA. Other special conditions apply when the wireline subscriber calls the telephone number of a wireless subscriber and both numbers are associated with rate centers within the same MTA (See Section II.D.3.b.ii of the Missoula Plan).

**Termination:** Acceptance of traffic routed according to NPA-NXX or LRN by a terminating telecommunication carrier.

**Termination Charges:** Charges intended to recover the traffic sensitive components of the terminating carrier's end office switch or equivalent facility used to deliver traffic from its Edge to the called party. When one carrier terminates another carrier's traffic, the terminating carrier may charge its applicable termination rate to the other carrier. These charges cover end office switching or equivalent, as well as the components of any dedicated transport, common transport or tandem switching used to terminate traffic within a carrier's network.

**Time-Division Multiplexing (TDM):** A type of multiplexing that combines data streams by assigning each stream a different time slot in a set.

**Track:** Classification of ILEC study areas according to assignation rules set forth in the Missoula Plan. The classification of an ILEC's study areas into one of the three tracks established in the Plan determines the rights and obligations of a carrier under the provisions of the Plan. An ILEC ordered to provide service to an unserved study area

will be treated as the area's ILEC and will be classified for such unserved study area under the same Track as it is in the study area from which it serves the unserved area.

**Track 1 study area (Non-CRTC):** All study areas affiliated with an RBOC, price cap non-rural study areas and rate-of-return (ROR) non-rural study areas that do not qualify as a CRTC study area, and price cap rural study areas with more than one million access lines. All non-ILECs fall into Track 1. Approximately 92 ILEC study areas and 146.2 million ILEC loops fall into this Track.

**Track 2 study area:** Price cap rural CRTC study areas with less than one million loops, price cap non-rural and ROR non-rural CRTC study areas, CRTC study areas for which a carrier has elected incentive regulation, ROR rural CRTC study areas with more than ten thousand loops that are part of a holding company that also has price cap or non-rural study areas. Approximately 158 ILEC study areas and 12.5 million ILEC loops fall into this Track.

**Track 3 study area:** All ROR rural CRTC study areas that are part of a holding company that do not have any price cap or non-rural study areas, ROR rural CRTC study areas with less than ten thousand loops that are part of a holding company that also has price cap or non-rural study areas, and any other ROR rural CRTC study areas not included in Track 2. Approximately 1,185 ILEC study areas and 7.3 million ILEC loops fall into this Track.

**Traffic Sensitive SLC Revenues:** For rate of return carriers, these revenues are defined as the difference between SLC revenues under the common line SLC rules in place prior to access reform and the SLC revenues under the new access reform rules.

**Transport:** Transmission facilities a carrier requires to physically interconnect its network with the terminating carrier's Edge.

**Trunking Media Gateway:** Building location with a device or system that converts time-division multiplexing (TDM) messages to packet messages and vice versa through protocol conversion, to allow communications between a TDM network and an IP network.

**Usage-Sensitive Access Rates:** Fees developed on a per-minute of use basis where the wholesale customer pays a certain amount of cents per minute to the incumbent or competitive local telephone company.

**Voice over Internet Protocol (VoIP):** Routing of voice conversations over the Internet or through any other IP-based network.



## APPENDIX B

### ACRONYMS

<b>ANI</b>	Automatic Number Identification
<b>BAK</b>	Bill and Keep
<b>BASICS</b>	Bill Access to Subscribers–Interconnection Cost Split
<b>BOCs</b>	Bell Operating Companies, also RBOCs
<b>CAPs</b>	Competitive Access Providers
<b>CALLS</b>	Coalition for Affordable Local and Long Distance Service
<b>CCLC</b>	Common Carrier Line Charge
<b>CLEC</b>	Competitive Local Exchange Carrier
<b>CLLI</b>	Common Language Location Identification
<b>CMRS</b>	Commercial Mobile Radio Services
<b>CN</b>	Charge Number
<b>CPN</b>	Calling Party Number
<b>CPNP</b>	Calling Party's Network Pays
<b>CRTC</b>	Covered Rural Telephone Company
<b>DCS</b>	Digital Cross-connect System
<b>DS-3</b>	Digital Signal Level 3
<b>EAS</b>	Extended Area Service
<b>ESP</b>	Enhanced Service Provider
<b>FCC</b>	Federal Communications Commission
<b>FNPRM</b>	Further Notice of Proposed Rulemaking
<b>HCLF</b>	High-Cost-Loop Fund
<b>IAS</b>	Interstate Access Support
<b>ICC</b>	Intercarrier Compensation
<b>ICLS</b>	Interstate Common Line Support
<b>ICTF</b>	Intercarrier Compensation Task Force
<b>ILEC</b>	Incumbent Local Exchange Carrier
<b>IP</b>	Internet Protocol
<b>ISP</b>	Information Service Provider, also Internet Service Provider
<b>IXC</b>	Inter-Exchange Carriers

<b>JIP</b>	Jurisdiction Information Parameter
<b>LATA</b>	Local Access Transport Area
<b>LEC</b>	Local Exchange Carrier
<b>LFAM</b>	Low-End Formula Adjustment Mechanism
<b>LRN</b>	Location Routing Number
<b>LSS</b>	Local Switching Support
<b>MAG</b>	Multi-Association Group
<b>MECAB</b>	Multiple Exchange Carrier Access Billing
<b>MOU</b>	Minutes of Use
<b>MTA</b>	Metropolitan Trading Area
<b>MSC</b>	Mobile Switching Center
<b>NPRM</b>	Notice of Proposed Rulemaking (FCC)
<b>PICC</b>	Presubscribed Interstate Carrier Charge
<b>PBX</b>	Private Branch Exchange
<b>POI</b>	Point of Interconnection
<b>POP</b>	Point of Presence
<b>RBOC</b>	Regional Bell Operating Company, also BOC
<b>RM</b>	Restructure Mechanism
<b>ROR</b>	Rate of Return Regulation
<b>SLCs</b>	Subscriber Line Charges
<b>SS7</b>	Signaling System 7
<b>TDM</b>	Time-Division Multiplexing
<b>USAC</b>	Universal Service Administrative Company
<b>USF</b>	Universal Service Fund
<b>VoIP</b>	Voice over Internet Protocol

## APPENDIX C

### RELEVANT SECTIONS OF THE TELECOMMUNICATIONS ACT AND FCC RULES REFERRED TO IN THE MISSOULA PLAN

**TELECOMMUNICATIONS ACT OF 1996**, Pub. LA. No. 104-104, 110 Stat. 56 (1996).  
[47 U.S.C.]

#### **Section 201 SERVICE AND CHARGES**

(a) It shall be the duty of every common carrier engaged in interstate or foreign communication by wire or radio to furnish such communication service upon reasonable request therefore; and, in accordance with the orders of the Commission, in cases where the Commission, after opportunity for hearing, finds such action necessary or desirable in the public interest, to establish physical connections with other carriers, to establish through routes and charges applicable thereto and the divisions of such charges, and to establish and provide facilities and regulations for operating such through routes.

(b) All charges, practices, classifications, and regulations for and in connection with such communication service, shall be just and reasonable, and any such charge, practice, classification, or regulation that is unjust or unreasonable is declared to be unlawful: Provided, That communications by wire or radio subject to this chapter may be classified into day, night, repeated, unrepeated, letter, commercial, press, Government, and such other classes as the Commission may decide to be just and reasonable, and different charges may be made for the different classes of communications: Provided further, That nothing in this chapter or in any other provision of law shall be construed to prevent a common carrier subject to this chapter from entering into or operating under any contract with any common carrier not subject to this chapter, for the exchange of their services, if the Commission is of the opinion that such contract is not contrary to the public interest: Provided further, That nothing in this chapter or in any other provision of law shall prevent a common carrier subject to this chapter from furnishing reports of positions of ships at sea to newspapers of general circulation, either at a nominal charge or without charge, provided the name of such common carrier is displayed along with such ship position reports. The Commission may prescribe such rules and regulations as may be necessary in the public interest to carry out the provisions of this chapter.

#### **Section 251(b)(5) RECIPROCAL COMPENSATION.**

[Each local exchange carrier has the] duty to establish reciprocal compensation arrangement for the transport and termination of telecommunications.

#### **Section 251(c)(6) COLLOCATION.**

[Each incumbent local exchange carrier has the] duty to provide, on rates, terms, and conditions that are just, reasonable, and nondiscriminatory, for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the premises of the local exchange carrier, except that the carrier may provide for virtual collocation of the local exchange carrier demonstrates to the State commission that physical collocation is not practical for technical reasons or because of space limitations.

**Section 251 (f)(1) EXEMPTIONS FOR CERTAIN RURAL TELEPHONE COMPANIES**

(A) *EXEMPTION* – Subsection (c) of this section shall not apply to a rural telephone company until (i) such company has received a bona fide request for interconnection, services, or network elements, and (ii) the State commission determines (under subparagraph (B)) that such request is not unduly economically burdensome, is technically feasible, and is consistent with section 254 (other than subsections (b)(7) and (c)(1)(D) thereof).

(B) *STATE TERMINATION OF EXEMPTION AND IMPLEMENTATION SCHEDULE* – The party making a bona fide request of a rural telephone company for interconnection, services, or network elements shall submit a notice of its request to the State commission. The State commission shall conduct an inquiry for the purpose of determining whether to terminate the exemption under subparagraph (A). Within 120 days after the State commission receives notice of the request, the State commission shall terminate the exemption if the request is not unduly economically burdensome, is technically feasible, and is consistent with section 254 (other than subsections (b)(7) and (c)(1)(D) thereof). Upon termination of the exemption, a State commission shall establish an implementation schedule for compliance with the request that is consistent in time and manner with Commission regulations.

(C) *LIMITATION ON EXEMPTION* – The exemption provided by this paragraph shall not apply with respect to a request under subsection (c) from a cable operator providing video programming, and seeking to provide any telecommunications service, in the area in which the rural telephone company provides video programming. The limitation contained in this subparagraph shall not apply to a rural telephone company that is providing video programming on the date of enactment of the Telecommunications Act of 1996.

**Section 251 (f)(2) SUSPENSIONS AND MODIFICATIONS FOR RURAL CARRIERS**

A local exchange carrier with fewer than 2 percent of the Nation's subscriber lines installed in the aggregate nationwide may petition a State commission for a suspension or modification of the application of a requirement or requirements of subsection (b) or (c) to telephone exchange service facilities specified in such petition. The State commission shall grant such petition to the extent that, and for such duration as, the State commission determines that such suspension or modification —

(A) is necessary –

- (i) To avoid a significant adverse economic impact on users of telecommunications services generally;
- (ii) To avoid imposing a requirement that is unduly economically burdensome; or
- (iii) To avoid imposing a requirement that is technically infeasible; and

(B) is consistent with the public interest, convenience, and necessity.

The State commission shall act upon any petition filed under this paragraph within 180 days after receiving such petition. Pending such action, the State commission may suspend enforcement of the requirement or requirements to which the petition applies with respect to the petitioning carrier or carriers.



## **Section 251(g) CONTINUED ENFORCEMENT OF EXCHANGE ACCESS AND INTERCONNECTION REQUIREMENTS**

On and after the date of enactment of the Telecommunications Act of 1996, each local exchange carrier, to the extent that it provides wireline services, shall provide exchange access, information access, and exchange services for such access to interexchange carriers and information service providers in accordance with the same equal access and nondiscriminatory interconnection restrictions and obligations (including receipt of compensation) that apply to such carrier on the date immediately preceding the date of enactment of the Telecommunications Act of 1996 under any court order, consent decree, or regulation, order, or policy of the Commission, until such restrictions and obligations are explicitly superseded by regulations prescribed by the Commission after such date of enactment.

### **Section 251 (i) Savings provision**

Nothing in this section shall be construed to limit or otherwise affect the Commission's authority under section 201 of this title.

### **Section 252 (d)(2) Charges for transport and termination of traffic**

#### **(A) In general**

For the purposes of compliance by an incumbent local exchange carrier with section 251 (b)(5) of this title, a State commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless—

- (i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier; and
- (ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.

#### **(B) Rules of construction**

This paragraph shall not be construed —

- (i) to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep arrangements); or
- (ii) to authorize the Commission or any State commission to engage in any rate regulation proceeding to establish with particularity the additional costs of transporting or terminating calls, or to require carriers to maintain records with respect to the additional costs of such calls.

### **Section 254(g) Interexchange and interstate services**

Within 6 months after February 8, 1996, the Commission shall adopt rules to require that the rates charged by providers of interexchange telecommunications services to subscribers in rural and high cost areas shall be no higher than the rates charged by each such provider to its subscribers in urban areas. Such rules shall also require that a provider of interstate interexchange telecommunications services shall provide such services to its subscribers in each State at rates no higher than the rates charged to its subscribers in any other State.

**FCC RULES: 47 CODE OF FEDERAL REGULATION [47 C.F.R.]****PART 51—INTERCONNECTION, Subpart D—Additional Obligations of Incumbent Local Exchange Carriers****§ 51.321 Methods of obtaining interconnection and access to unbundled elements under section 251 of the Act.**

(a) Except as provided in paragraph (e) of this section, an incumbent LEC shall provide, on terms and conditions that are just, reasonable, and nondiscriminatory in accordance with the requirements of this part, any technically feasible method of obtaining interconnection or access to unbundled network elements at a particular point upon a request by a telecommunications carrier.

(b) Technically feasible methods of obtaining interconnection or access to unbundled network elements include, but are not limited to:

(1) Physical collocation and virtual collocation at the premises of an incumbent LEC; and

(2) Meet point interconnection arrangements.

(c) A previously successful method of obtaining interconnection or access to unbundled network elements at a particular premises or point on any incumbent LEC's network is substantial evidence that such method is technically feasible in the case of substantially similar network premises or points. A requesting telecommunications carrier seeking a particular collocation arrangement, either physical or virtual, is entitled to a presumption that such arrangement is technically feasible if any LEC has deployed such collocation arrangement in any incumbent LEC premises.

(d) An incumbent LEC that denies a request for a particular method of obtaining interconnection or access to unbundled network elements on the incumbent LEC's network must prove to the state commission that the requested method of obtaining interconnection or access to unbundled network elements at that point is not technically feasible.

(e) An incumbent LEC shall not be required to provide for physical collocation of equipment necessary for interconnection or access to unbundled network elements at the incumbent LEC's premises if it demonstrates to the state commission that physical collocation is not practical for technical reasons or because of space limitations. In such cases, the incumbent LEC shall be required to provide virtual collocation, except at points where the incumbent LEC proves to the state commission that virtual collocation is not technically feasible. If virtual collocation is not technically feasible, the incumbent LEC shall provide other methods of interconnection and access to unbundled network elements to the extent technically feasible.

(f) An incumbent LEC shall submit to the state commission, subject to any protective order as the state commission may deem necessary, detailed floor plans or diagrams of any premises where the incumbent LEC claims that physical collocation is not practical because of space limitations. These floor plans or diagrams must show what space, if any, the incumbent LEC or any of its affiliates has reserved for future use, and must describe in detail the specific future uses for which the space has been reserved and the length of time for each reservation. An incumbent LEC that contends space for physical collocation is not available in an incumbent LEC premises must also allow the requesting carrier to tour the entire premises in question, not

only the area in which space was denied, without charge, within ten days of the receipt of the incumbent's denial of space. An incumbent LEC must allow a requesting telecommunications carrier reasonable access to its selected collocation space during construction.

(g) An incumbent LEC that is classified as a Class A company under §32.11 of this chapter and that is not a National Exchange Carrier Association interstate tariff participant as provided in part 69, subpart G, shall continue to provide expanded interconnection service pursuant to interstate tariff in accordance with §64.1401, 64.1402, 69.121 of this chapter, and the Commission's other requirements.

(h) Upon request, an incumbent LEC must submit to the requesting carrier within ten days of the submission of the request a report describing in detail the space that is available for collocation in a particular incumbent LEC premises. This report must specify the amount of collocation space available at each requested premises, the number of collocators, and any modifications in the use of the space since the last report. This report must also include measures that the incumbent LEC is taking to make additional space available for collocation. The incumbent LEC must maintain a publicly available document, posted for viewing on the incumbent LEC's publicly available Internet site, indicating all premises that are full, and must update such a document within ten days of the date at which a premises runs out of physical collocation space.

(i) An incumbent LEC must, upon request, remove obsolete unused equipment from their premises to increase the amount of space available for collocation.

[61 FR 45619, Aug. 28, 1996, as amended at 64 FR 23241, Apr. 30, 1999; 65 FR 54438, Sept. 8, 2000; 66 FR 43521, Aug. 20, 2001]

### **§ 51.323 Standards for physical collocation and virtual collocation.**

(a) An incumbent LEC shall provide physical collocation and virtual collocation to requesting telecommunications carriers.

(b) An incumbent LEC shall permit the collocation and use of any equipment necessary for interconnection or access to unbundled network elements.

(1) Equipment is necessary for interconnection if an inability to deploy that equipment would, as a practical, economic, or operational matter, preclude the requesting carrier from obtaining interconnection with the incumbent LEC at a level equal in quality to that which the incumbent obtains within its own network or the incumbent provides to any affiliate, subsidiary, or other party.

(2) Equipment is necessary for access to an unbundled network element if an inability to deploy that equipment would, as a practical, economic, or operational matter, preclude the requesting carrier from obtaining nondiscriminatory access to that unbundled network element, including any of its features, functions, or capabilities.

(3) Multi-functional equipment shall be deemed necessary for interconnection or access to an unbundled network element if and only if the primary purpose and function of the equipment, as the requesting carrier seeks to deploy it, meets either or both of the standards set forth in paragraphs (b)(1) and (b)(2) of this section. For a piece of equipment to be utilized primarily to obtain equal in quality interconnection or nondiscriminatory access to one or more unbundled network elements, there also must be a logical nexus between

the additional functions the equipment would perform and the telecommunication services the requesting carrier seeks to provide to its customers by means of the interconnection or unbundled network element. The collocation of those functions of the equipment that, as stand-alone functions, do not meet either of the standards set forth in paragraphs (b)(1) and (b)(2) of this section must not cause the equipment to significantly increase the burden on the incumbent's property.

(c) Whenever an incumbent LEC objects to collocation of equipment by a requesting telecommunications carrier for purposes within the scope of section 251(c)(6) of the Act, the incumbent LEC shall prove to the state commission that the equipment is not necessary for interconnection or access to unbundled network elements under the standards set forth in paragraph (b) of this section. An incumbent LEC may not object to the collocation of equipment on the grounds that the equipment does not comply with safety or engineering standards that are more stringent than the safety or engineering standards that the incumbent LEC applies to its own equipment. An incumbent LEC may not object to the collocation of equipment on the ground that the equipment fails to comply with Network Equipment and Building Specifications performance standards or any other performance standards. An incumbent LEC that denies collocation of a competitor's equipment, citing safety standards, must provide to the competitive LEC within five business days of the denial a list of all equipment that the incumbent LEC locates at the premises in question, together with an affidavit attesting that all of that equipment meets or exceeds the safety standard that the incumbent LEC contends the competitor's equipment fails to meet. This affidavit must set forth in detail: the exact safety requirement that the requesting carrier's equipment does not satisfy; the incumbent LEC's basis for concluding that the requesting carrier's equipment does not meet this safety requirement; and the incumbent LEC's basis for concluding why collocation of equipment not meeting this safety requirement would compromise network safety.

(d) When an incumbent LEC provides physical collocation, virtual collocation, or both, the incumbent LEC shall:

(1) Provide an interconnection point or points, physically accessible by both the incumbent LEC and the collocating telecommunications carrier, at which the fiber optic cable carrying an interconnector's circuits can enter the incumbent LEC's premises, provided that the incumbent LEC shall designate interconnection points as close as reasonably possible to its premises;

(2) Provide at least two such interconnection points at each incumbent LEC premises at which there are at least two entry points for the incumbent LEC's cable facilities, and at which space is available for new facilities in at least two of those entry points;

(3) Permit interconnection of copper or coaxial cable if such interconnection is first approved by the state commission; and

(4) Permit physical collocation of microwave transmission facilities except where such collocation is not practical for technical reasons or because of space limitations, in which case virtual collocation of such facilities is required where technically feasible.

(e) When providing virtual collocation, an incumbent LEC shall, at a minimum, install, maintain, and repair collocated equipment meeting the standards set forth in paragraph (b) of this section within the same time periods and with failure rates that are no greater than those that apply to the performance of similar functions for comparable equipment of the incumbent LEC itself.

(f) An incumbent LEC shall provide space for the collocation of equipment meeting the standards set forth in paragraph (b) of this section in accordance with the following requirements:

(1) An incumbent LEC shall make space available within or on its premises to requesting telecommunications carriers on a first-come, first-served basis, provided, however, that the incumbent LEC shall not be required to lease or construct additional space to provide for physical collocation when existing space has been exhausted;

(2) To the extent possible, an incumbent LEC shall make contiguous space available to requesting telecommunications carriers that seek to expand their existing collocation space;

(3) When planning renovations of existing facilities or constructing or leasing new facilities, an incumbent LEC shall take into account projected demand for collocation of equipment;

(4) An incumbent LEC may retain a limited amount of floor space for its own specific future uses, provided, however, that neither the incumbent LEC nor any of its affiliates may reserve space for future use on terms more favorable than those that apply to other telecommunications carriers seeking to reserve collocation space for their own future use;

(5) An incumbent LEC shall relinquish any space held for future use before denying a request for virtual collocation on the grounds of space limitations, unless the incumbent LEC proves to the state commission that virtual collocation at that point is not technically feasible; and

(6) An incumbent LEC may impose reasonable restrictions on the warehousing of unused space by collocating telecommunications carriers, provided, however, that the incumbent LEC shall not set maximum space limitations applicable to such carriers unless the incumbent LEC proves to the state commission that space constraints make such restrictions necessary.

(7) An incumbent LEC must assign collocation space to requesting carriers in a just, reasonable, and nondiscriminatory manner. An incumbent LEC must allow each carrier requesting physical collocation to submit space preferences prior to assigning physical collocation space to that carrier. At a minimum, an incumbent LEC's space assignment policies and practices must meet the following principles:

(A) An incumbent LEC's space assignment policies and practices must not materially increase a requesting carrier's collocation costs.

(B) An incumbent LEC's space assignment policies and practices must not materially delay a requesting carrier occupation and use of the incumbent LEC's premises.

(C) An incumbent LEC must not assign physical collocation space that will impair the quality of service or impose other limitations on the service a requesting carrier wishes to offer.

(D) An incumbent LEC's space assignment policies and practices must not reduce unreasonably the total space available for physical collocation or preclude unreasonably physical collocation within the incumbent's premises.

(g) An incumbent LEC shall permit collocating telecommunications carriers to collocate equipment and connect such equipment to unbundled network transmission elements obtained from the incumbent LEC, and shall not require such telecommunications carriers to bring their own transmission facilities to the incumbent LEC's premises in which they seek to collocate equipment.

(h) As described in paragraphs (1) and (2) of this section, an incumbent LEC shall permit a collocating telecommunications carrier to interconnect its network with that of another collocating telecommunications carrier at the incumbent LEC's premises and to connect its collocated equipment to the collocated equipment of another telecommunications carrier within the same premises, provided that the collocated equipment is also used for interconnection with the incumbent LEC or for access to the incumbent LEC's unbundled network elements.

(1) An incumbent LEC shall provide, at the request of a collocating telecommunications carrier, a connection between the equipment in the collocated spaces of two or more telecommunications carriers, except to the extent the incumbent LEC permits the collocating parties to provide the requested connection for themselves or a connection is not required under paragraph (h)(2) of this section. Where technically feasible, the incumbent LEC shall provide the connection using copper, dark fiber, lit fiber, or other transmission medium, as requested by the collocating telecommunications carrier.

(2) An incumbent LEC is not required to provide a connection between the equipment in the collocated spaces of two or more telecommunications carriers if the connection is requested pursuant to section 201 of the Act, unless the requesting carrier submits to the incumbent LEC a certification that more than 10 percent of the amount of traffic to be transmitted through the connection will be interstate. The incumbent LEC cannot refuse to accept the certification, but instead must provision the service promptly. Any incumbent LEC may file a section 208 complaint with the Commission challenging the certification if it believes that the certification is deficient. No such certification is required for a request for such connection under section 251 of the Act.

(i) As provided herein, an incumbent LEC may require reasonable security arrangements to protect its equipment and ensure network reliability. An incumbent LEC may only impose security arrangements that are as stringent as the security arrangements that the incumbent LEC maintains at its own premises for its own employees or authorized contractors. An incumbent LEC must allow collocating parties to access their collocated equipment 24 hours a day, seven days a week, without requiring either a security escort of any kind or delaying a competitor's employees' entry into the incumbent LEC's premises. An incumbent LEC may require a collocating carrier to pay only for the least expensive, effective security option that is viable for the physical collocation space assigned. Reasonable security measures that the incumbent LEC may adopt include:

(1) Installing security cameras or other monitoring systems; or

(2) Requiring competitive LEC personnel to use badges with computerized tracking systems; or

(3) Requiring competitive LEC employees to undergo the same level of security training, or its equivalent, that the incumbent's own employees, or third party contractors providing similar functions, must undergo; provided, however, that the incumbent LEC may not require competitive LEC employees to receive such training from the incumbent LEC itself, but must



provide information to the competitive LEC on the specific type of training required so the competitive LEC's employees can conduct their own training.

(4) Restricting physical collocation to space separated from space housing the incumbent LEC's equipment, provided that each of the following conditions is met:

- (i) Either legitimate security concerns, or operational constraints unrelated to the incumbent's or any of its affiliates' or subsidiaries competitive concerns, warrant such separation;
- (ii) Any physical collocation space assigned to an affiliate or subsidiary of the incumbent LEC is separated from space housing the incumbent LEC's equipment;
- (iii) The separated space will be available in the same time frame as, or a shorter time frame than, non-separated space;
- (iv) The cost of the separated space to the requesting carrier will not be materially higher than the cost of non-separated space; and
- (v) The separated space is comparable, from a technical and engineering standpoint, to non-separated space.

(5) Requiring the employees and contractors of collocating carriers to use a central or separate entrance to the incumbent's building, provided, however, that where an incumbent LEC requires that the employees or contractors of collocating carriers access collocated equipment only through a separate entrance, employees and contractors of the incumbent LEC's affiliates and subsidiaries must be subject to the same restriction.

(6) Constructing or requiring the construction of a separate entrance to access physical collocation space, provided that each of the following conditions is met:

- (i) Construction of a separate entrance is technically feasible;
  - (ii) Either legitimate security concerns, or operational constraints unrelated to the incumbent's or any of its affiliates' or subsidiaries competitive concerns, warrant such separation;
  - (iii) Construction of a separate entrance will not artificially delay collocation provisioning; and
  - (iv) Construction of a separate entrance will not materially increase the requesting carrier's costs.
- (j) An incumbent LEC shall permit a collocating telecommunications carrier to subcontract the construction of physical collocation arrangements with contractors approved by the incumbent LEC, provided, however, that the incumbent LEC shall not unreasonably withhold approval of contractors. Approval by an incumbent LEC shall be based on the same criteria it uses in approving contractors for its own purposes.
- (k) An incumbent LEC's physical collocation offering must include the following:



(1) Shared collocation cages. A shared collocation cage is a caged collocation space shared by two or more competitive LECs pursuant to terms and conditions agreed to by the competitive LECs. In making shared cage arrangements available, an incumbent LEC may not increase the cost of site preparation or nonrecurring charges above the cost for provisioning such a cage of similar dimensions and material to a single collocating party. In addition, the incumbent must prorate the charge for site conditioning and preparation undertaken by the incumbent to construct the shared collocation cage or condition the space for collocation use, regardless of how many carriers actually collocate in that cage, by determining the total charge for site preparation and allocating that charge to a collocating carrier based on the percentage of the total space utilized by that carrier. An incumbent LEC must make shared collocation space available in single-bay increments or their equivalent, i.e., a competing carrier can purchase space in increments small enough to collocate a single rack, or bay, of equipment.

(2) Cageless collocation. Incumbent LECs must allow competitors to collocate without requiring the construction of a cage or similar structure. Incumbent LECs must permit collocating carriers to have direct access to their equipment. An incumbent LEC may not require competitors to use an intermediate interconnection arrangement in lieu of direct connection to the incumbent's network if technically feasible. An incumbent LEC must make cageless collocation space available in single-bay increments, meaning that a competing carrier can purchase space in increments small enough to collocate a single rack, or bay, of equipment.

(3) Adjacent space collocation. An incumbent LEC must make available, where physical collocation space is legitimately exhausted in a particular incumbent LEC structure, collocation in adjacent controlled environmental vaults, controlled environmental huts, or similar structures located at the incumbent LEC premises to the extent technically feasible. The incumbent LEC must permit a requesting telecommunications carrier to construct or otherwise procure such an adjacent structure, subject only to reasonable safety and maintenance requirements. The incumbent must provide power and physical collocation services and facilities, subject to the same nondiscrimination requirements as applicable to any other physical collocation arrangement. The incumbent LEC must permit the requesting carrier to place its own equipment, including, but not limited to, copper cables, coaxial cables, fiber cables, and telecommunications equipment, in adjacent facilities constructed by the incumbent LEC, the requesting carrier, or a third-party. If physical collocation space becomes available in a previously exhausted incumbent LEC structure, the incumbent LEC must not require a carrier to move, or prohibit a competitive LEC from moving, a collocation arrangement into that structure. Instead, the incumbent LEC must continue to allow the carrier to collocate in any adjacent controlled environmental vault, controlled environmental vault, or similar structure that the carrier has constructed or otherwise procured.

(l) An incumbent LEC must offer to provide and provide all forms of physical collocation (i.e., caged, cageless, shared, and adjacent) within the following deadlines, except to the extent a state sets its own deadlines or the incumbent LEC has demonstrated to the state commission that physical collocation is not practical for technical reasons or because of space limitations.

(1) Within ten days after receiving an application for physical collocation, an incumbent LEC must inform the requesting carrier whether the application meets each of the incumbent LEC's established collocation standards. A requesting carrier that resubmits a revised application curing any deficiencies in an application for physical collocation within ten days

after being informed of them retains its position within any collocation queue that the incumbent LEC maintains pursuant to paragraph (f)(1) of this section.

(2) Except as stated in paragraphs (l)(3) and (l)(4) of this section, an incumbent LEC must complete provisioning of a requested physical collocation arrangement within 90 days after receiving an application that meets the incumbent LEC's established collocation application standards.

(3) An incumbent LEC need not meet the deadline set forth in paragraph (l)(2) of this section if, after receipt of any price quotation provided by the incumbent LEC, the telecommunications carrier requesting collocation does not notify the incumbent LEC that physical collocation should proceed.

(4) If, within seven days of the requesting carrier's receipt of any price quotation provided by the incumbent LEC, the telecommunications carrier requesting collocation does not notify the incumbent LEC that physical collocation should proceed, then the incumbent LEC need not complete provisioning of a requested physical collocation arrangement until 90 days after receiving such notification from the requesting telecommunications carrier.

[61 FR 45619, Aug. 28, 1996, as amended at 64 FR 23242, Apr. 30, 1999; 65 FR 54439, Sept. 8, 2000; 66 FR 43521, Aug. 20, 2001]



## APPENDIX D

SUMMARY OF PLANS FILED IN CC DOCKET 01-92<sup>151</sup>

<b>ICF Plan – Intercarrier Compensation Forum (A nine-carrier group)</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Bill-and-Keep	Reduce termination rates to zero over a six-year period. Includes a settlement proposal to solve disputes between CRTS and CMRS. Increase SLC.	An originating carrier should deliver traffic to the “edge” of a terminating carrier’s network. Each carrier must have at least one Edge in every LATA to receive traffic. A CRTC has no obligation to deliver originating traffic beyond its study area.	Lost revenue would be replaced by a combination of end user charges and two new universal service support mechanisms. Use a single contribution methodology for all universal service mechanisms.

<b>ARIC – Alliance for Rational Intercarrier Compensation FACTS (Fair Affordable Comprehensive Telecom Solution) (Small carriers in rural high-cost areas)</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Unified CPNP	A unified per-minute rate for all types of traffic, with a cap based on unseparated interoffice embedded costs. Different calculation methods for carriers under rate-of-return and price cap regulation.	No change.	Call for local retail rate rebalancing. Retain federal SLC cap and unify SLC within states. Uncovered revenue loss would be recovered through a state equalization fund from both federal and state sources.

<sup>151</sup> Sources: FCC 05-33 FNPR, March 3, 2005 and Proposals filed at the FCC.

<b>EPG Plan – Expanded Portland Group – Small and mid-sized rural LECs</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Unified CPNP	Use “Truth-in-labeling” guidelines. Set all per-minute rates at the interstate access charge level and eventually convert them into a capacity-based “Port and Link” structure except rates for local traffic. The Port and Link charges would be equivalent to interstate per minute rate with rate banding. ISPs should be charged as flat-rated business lines.	Carriers should be required to purchase “ports” to provide a connection into a local network and “links” to connect the two networks.	Recover the loss by a new Access Restructure Charge (ARC). ARC uses a price benchmark and is capacity-based, portable to wireless carriers.

<b>CBICC – The Cost Based Inter-carrier Compensation Coalition – Coalition of CLECs</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Unified CPNP by region	A single termination rate for all types of traffic in each geographic area. The rate shall be cost-based using TELRIC methodology.	No change.	Increase end user charges and universal service support for rural LECs.

<b>Home/PBT Proposal – Home Telephone and PBT Telecom (Two rural LECs)</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
CPNP	Use connection-based intercarrier charges. Develop an alternative access tandem connection fee for access tandem.	All carriers would be required to connect to the PSTN. One Point of Interconnection per LATA except for rural carriers.	Carriers may increase SLCs up to the federal cap. Develop a high cost connection fund to recover other intercarrier costs. The new fund would be funded through a number-based monthly charge.

<b>Western Wireless Proposal – Western Wireless</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Bill-and-Keep	Transit to a unified bill-and-keep system for all types of traffic over a four-year period, longer for small rural LECs. Increase SLCs, same SLC caps for rural and non-rural ILECs.	Carriers negotiate interconnection terms among themselves and arrange carrier “edges” or mutual meet-point.	Replace the existing universal service mechanisms with a unified high-cost mechanism based on forward-looking costs, over a transition period up to six years.

<b>NASUCA Principles – National Association of State Utility Consumer Advocates –</b> (Consumer advocacy group)			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
CPNP	The FCC would set a target rate to reduce certain intercarrier rates down to \$0.0055 permit over a five-year period. Maintain reciprocal compensation rate at the current level. States would be encouraged to match the federal target rate but retain authority concerning how to reach the rate.	No change.	Retain the current universal service mechanisms and the current SLC rate caps. Reduce access revenue over time.

<b>NARUC Principles – National Association of Regulatory Utility Commissions</b>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Unified CPNP	Allow terminating access charges, but no distinction among traffics, carriers and customers. Charges should be competitively and technologically neutral and reflect economic costs.	No change.	Minimize the impact on universal service mechanisms and consumer rates.



<b>CTIA Principles – Cellular Telecommunications and Internet Association</b> (Wireless carriers' association)			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
Bill-and-Keep	Unified rules for all types of traffic and carriers. Avoid administrative complexity and consumer rate increase.	An originating carrier should deliver traffic to the “edge” of a terminating carrier’s network.	Advocate a single unified universal service support mechanism based on forward-looking economic costs.

<b>NTCA Principles – National Telephone Cooperative Association</b> (Small rural telephone companies and cooperatives) <i>Sources: NTCA website <a href="http://www.ntca.org/ka/ka-3.cfm?content_item_id=3316&amp;folder_id=533">http://www.ntca.org/ka/ka-3.cfm?content_item_id=3316&amp;folder_id=533</a></i>			
<b>Basic Approach</b>	<b>Rate Structure</b>	<b>Interconnection Requirement</b>	<b>Revenue Recovery / Universal Service</b>
CPNP	Allow a different set of rules and policies for rural ILECs, such as allowing reciprocal compensation and access charges for rural ILECs.	No change.	Preserve and sustain universal service.



## APPENDIX E

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