The Missoula Plan
Intercarrier Compensation Reform

Washington Utilities and Transportation Commission

Missoula Plan Workshop

October 3, 2006

NARUC Task Force on Intercarrier Compensation

- **April 2003 – NARUC forms Task Force on Intercarrier Compensation – draws widespread participation from all industry segments**
- **NARUC Task Force conducts twelve workshops between July 2004 and January 2006**
- **4th quarter 2005 – NARUC Task Force asks for industry-driven plan**
- **March 2006 – Industry sub-group delivers *Missoula Plan* to NARUC Task Force**
- **April 21, 2006 – Industry participants "vote" on whether to support Missoula Plan**
- **Plan supporters develop additional Plan details and conduct outreach to broaden support**
- **Details of comprehensive Missoula Plan submitted to NARUC Task Force**
- **July 24, 2006 – NARUC files Missoula Plan with FCC**
- **July 25, 2006 – FCC seeks comment on Missoula Intercarrier Compensation Reform Plan**
- **Comments are due October 25th and Reply Comments are due December 11th**

Missoula Plan Supporters

Epic Touch

Global Crossing

Level 3 Communications

Iowa Telecom

The Rural Alliance (325+ rural telephone companies)

AT&T

Madison River Communications

Consolidated Communications

BellSouth

Commonwealth Telephone Co.

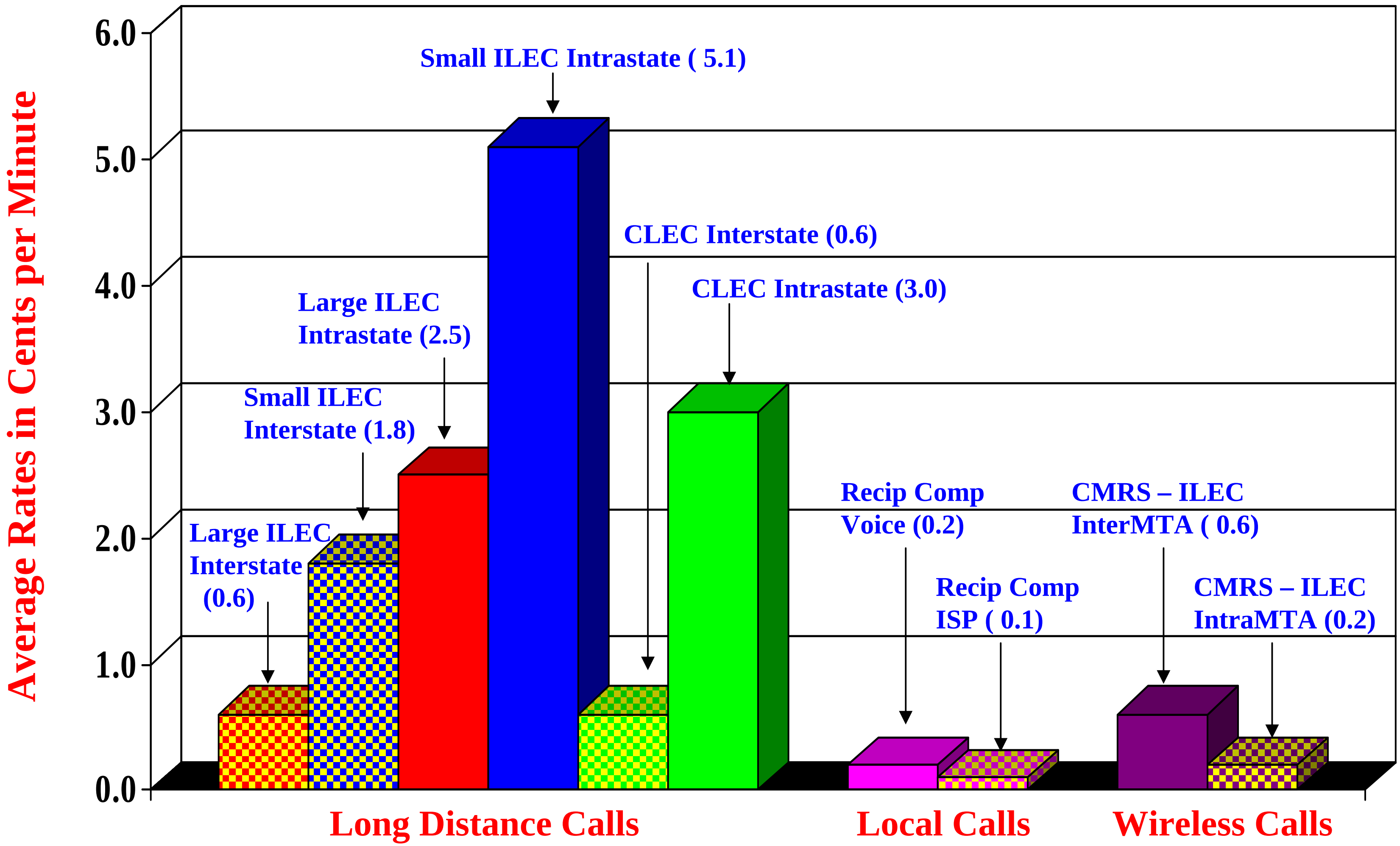
Cingular Wireless

Ubiquitous Broadband Essential to Strong U.S. Economy

“Girls, when I was growing up, my parents used to say to me, ‘Tom, finish your dinner — people in China and India are starving.’ My advice to you is: Girls, finish your homework — people in China and India are starving for your jobs.”

The World is Flat **by Thomas Friedman**

Current Intercarrier Compensation System is Broken



High (¢/min):	1.5	8.9	9.9	34.9	6.8	35.9	0.3	0.1	8.9	0.3
Low (¢/min):	0.5	0.3	0.4	0.7	0.2	0.4	0.0	0.0	0.2	0.0

Missoula Plan Overview

- **Six year plan unifies intercarrier charges for majority of nation's lines and moves *all intercarrier rates for all traffic* closer together**
- **Some parts of the Plan are discretionary for States, all others are mandatory**
- **Tailors reform based on three categories of carrier, or *Tracks***
- **Provides alternative sources for recovery through federal SLC increases and a new Restructure Mechanism**
- **Establishes uniform default interconnection rules**
- **Addresses phantom traffic and other intractable industry disputes such as VoIP-to-PSTN compensation, Virtual FX and IntraMTA wireless compensation**
- **Requires NPRMs at Steps 4 and 6 to determine whether additional reform is appropriate**
- **Provides additional funding to: insulate Lifeline customers from SLC increases; establish an Early Adopter Fund; and increase certain high cost funding**
- **Creates an incentive regulation option for qualifying rate of return ILECs**

Carrier Categories

- **Missoula Plan creates three carrier categories, or *Tracks* – reform tailored for each Track**
- **Track 1 carrier category**
  - RBOC ILECs, all non-CRTC ILECs and all non-ILEC carriers, e.g., CMRS, CLEC and IXC carriers
  - Comprises 92 ILEC study areas with approximately 146.2M ILEC lines
- **Track 2 carrier category**
  - Most mid-size ILECs
  - Comprises 158 ILEC study areas with approximately 12.5M ILEC lines
- **Track 3 carrier category**
  - Smallest ROR ILECs
  - Comprises 1,185 study areas with approximately 7.3M ILEC lines
- **Carriers must meet the following definition of a Covered Rural Telephone Company (CRTC) to be treated as a Track 2 or 3 carrier**
  - Carrier must be an ILEC in a particular study area as of August 1, 2006, meet the definition of rural in the Act, not be owned by a BOC or its affiliate and serve less than 1M lines; or
  - Carrier must be an ILEC and qualify as a 2% carrier under the criteria contained in section 251(f)(2) in all study areas it holds as of August 1, 2006; and
    - ✓ must have a holding company average of less than 19 lines per square mile; or
    - ✓ must be non-rural, interstate ROR and select incentive regulation by December 31, 2006.

Intercarrier Compensation Transition

<table>
<tr><th></th><th colspan="2">Termination Charges</th><th>Origination Charges</th></tr>
<tr><th></th><th>Reciprocal Compensation</th><th>Terminating Access</th><th>Originating Access</th></tr>
<tr><td>Track 1</td><td colspan="2">Step 3: Termination charges for all traffic unify at $0.0007. Transport charges for dedicated transport unify at interstate direct trunk transport rate levels.

Step 4: Termination charge decreases to $0.0005.</td><td>Step 4: Charges unify as follows:
➢ $0.002 for end office switching;
➢ $0.0025 for tandem switched transport;
➢ Interstate direct trunk transport rate levels for dedicated transport.
Or, carriers may eliminate originating access.</td></tr>
<tr><td>Track 2</td><td colspan="2">Step 3: Termination charges for all traffic unify at $0.0005. Transport charges for tandem switched transport unify at:
➢ $0.0105 for ROR study areas;
➢ $0.0075 or $0.0097 (when originating is eliminated) for price cap or incentive regulation study areas;
➢ Interstate direct trunk transport rate levels for dedicated transport.</td><td>Step 4: Charges unify as follows:
➢ $0.002 for end office switching and $0.0105 for tandem switched transport in ROR study areas;
➢ $0.002 for end office switching and $0.0075 for tandem switched transport in price cap or incentive regulation study areas;
➢ Interstate direct trunk transport rate levels for dedicated switched transport.
Or, carriers may eliminate originating access.</td></tr>
<tr><td>Track 3</td><td>Step 1: Transport and Termination rates capped at interstate access levels. Existing EAS arrangements with other ILECs continue unchanged.</td><td>Step 4: Intrastate access charges unify at interstate access rate levels.</td><td>Step 4: Intrastate access charges unify at interstate access rate levels.</td></tr>
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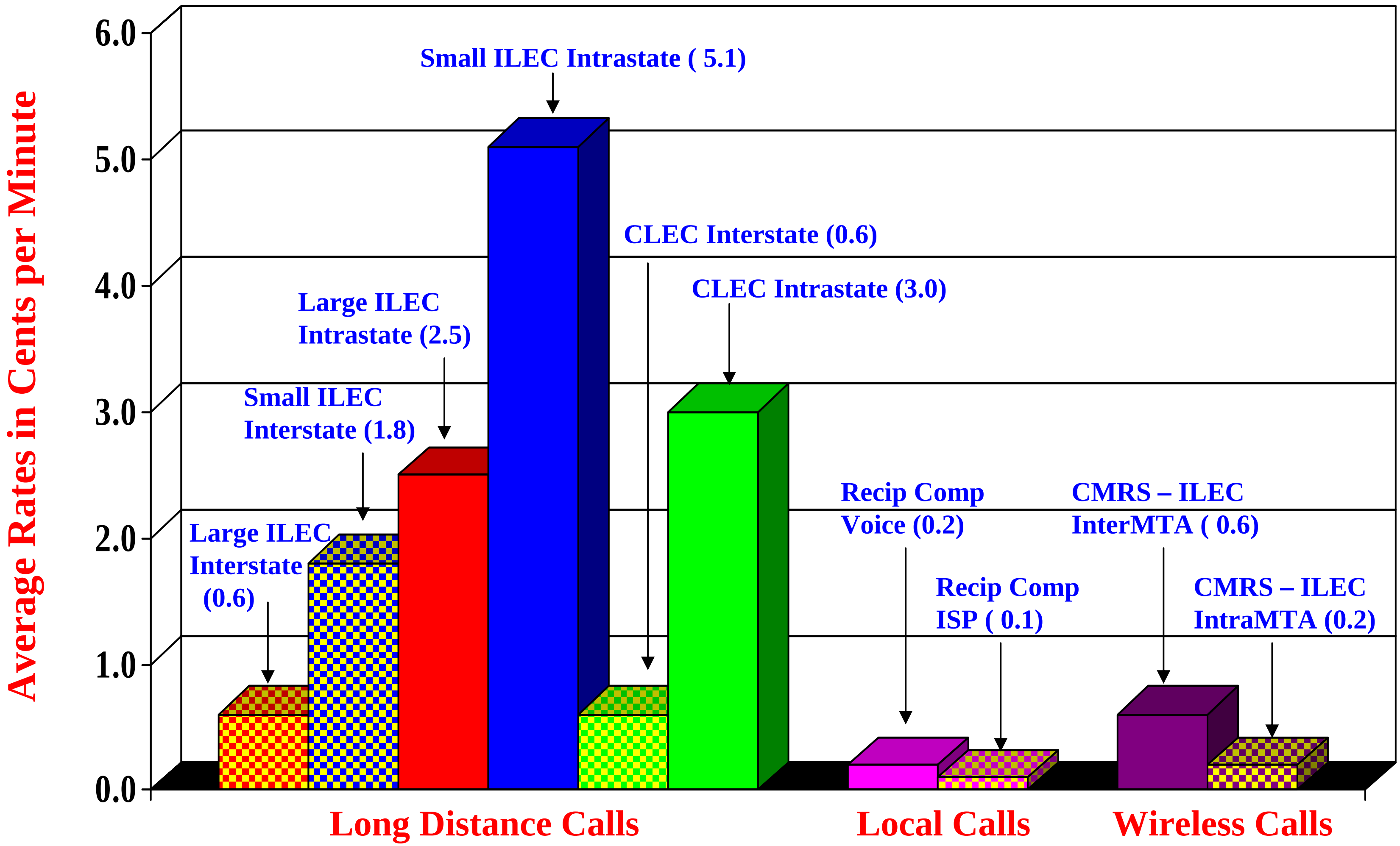
Missoula Plan Replaces the Broken System



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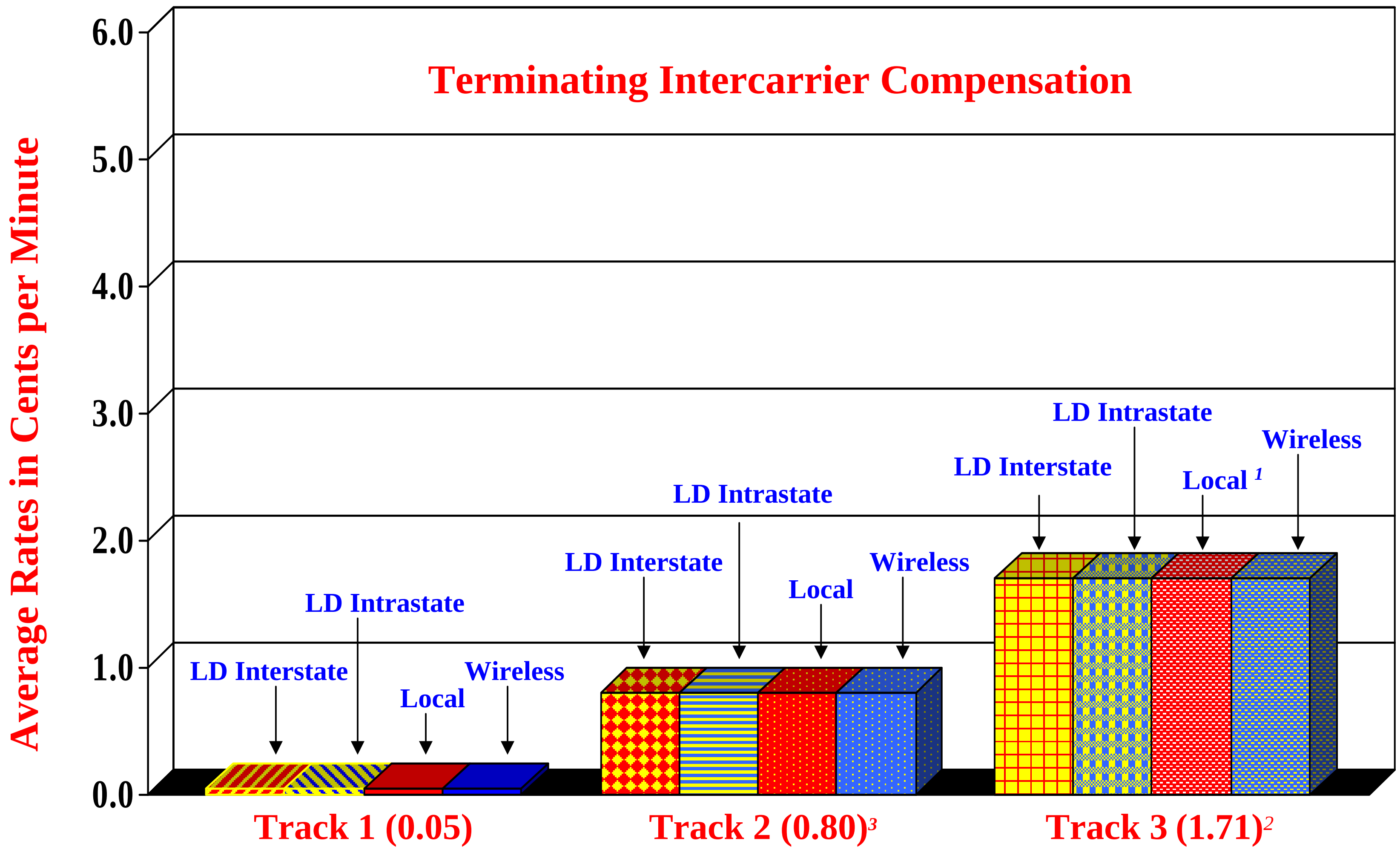
Missoula Plan Intercarrier Compensation Solution



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

Alternative Sources of Revenue

- **As intercarrier compensation rates are reduced, carriers will have an opportunity to recover resulting lost revenues through SLC cap increases**
  - Track 1 SLC caps increase to $10.00 over 4 steps
    - ✓ **Pricing constraint No. 1:** No residential or single line business SLC may exceed the Nationwide SLC Cap of $7.25 at Step 1, $8.00 at Step 2, $9.00 at Step 3 and $10.00 at Step 4. Multi-line business SLCs may not exceed $9.20 at Steps 1 – 3 and $10.00 at Step 4.
    - ✓ **Pricing Constraint No. 2:** Average SLC rate may increase by no more than lower of the revenue shift or $0.75 at Step 1, $1.50 at Step 2, $2.50 at Step 3 and $3.50 at Step 4.
    - ✓ **Pricing Constraint No. 3:** Individual residential and single-line business SLC rates may increase by no more than $0.95 at Step 1, $1.90 at Step 2, $3.10 at Step 3 and $4.30 at Step 4.
    - ✓ Beginning at Step 5, the SLC cap rises with inflation each year.
  - Track 2 residential & single line business SLC caps increase to $8.75 over 3 steps – MLB increases to $10.00 at Step 3
  - Track 3 residential & single line business SLC caps increase to $8.75 over 3 steps
- **A new common line price cap basket structure and additional pricing flexibility will apply to all price cap carriers**
- **Restructure Mechanism provides for recovery of revenues, to the extent they aren't recovered through SLC cap increases**
  - The Plan supporters' current best estimate of the Restructure Mechanism at the end of the transition is approximately $1.5B

"Dialing In" Intercarrier Compensation Reform

	Track 1	Track 2	Track 3
Dial No. 1 --- Intercarrier Rates			
Origination	$0.0045	$0.0095	$0.0171
Termination	$0.0005	$0.0080	$0.0171
Dial No. 2 --- End User Rates			
Interstate SLC cap increases	$3.50/Line/Month	$2.25/Line/Month	$2.25/Line/Month
Dial No. 3 --- Restructure Mechanism		**$1.500B**	

Restructure Mechanism		**$1.500B**	**$0.21**
Early Adopter		**$0.200B**	**$0.03**
Universal Service Fund Adjustments		**$0.525B**	**$0.06**
Additional Lifeline	$0.225B		
High Cost Fund Adjustments	$0.300B		
Total ICR Support		**$2.225B**	**$0.30**

*****Total ICR Support recovered with a monthly (per connection unit) charge*****

Other Features of the Missoula Plan

- **Creates a federal Early Adopter Fund for States that have rebalanced intrastate access through explicit state funds**
  - Minimum of $200M provided for the Early Adopter Fund.
  - Missoula Plan supporters commit resources to work with State Commissioners to help size this Fund and determine how it should work when States have rebalanced intrastate access through state funds or local rate increases.

- **Provides additional universal service support**
  - Provides approximately $300M for several rural and non-rural high cost loop fund modifications.
  - Provides approximately $225M in additional Lifeline support to insulate low income consumers from SLC increases.

- **ROR CRTCs will have an annual option to move to an incentive regulation program on a study area-by-study area basis**
  - Study areas for which incentive regulation is chosen will be treated as Track 2.
  - Existing ROR rules for switched services will be replaced by rules that regulate prices.
  - Interstate special access prices will be reinitialized to 11.25% ROR and subject to a price cap plan.

Goals for Interconnection & Intercarrier Compensation

- **Promote carrier negotiations and reduce incentives for arbitration**
  - Generic default rules were established
  - Carriers are free to negotiate mutually agreeable alternative to the default rules
  - Default rules were structured to reduce likelihood a carrier could unfairly leverage its position
  - Default rules provide clear outcome if negotiations fail
- **Mitigate regulatory induced arbitrage**
- **Resolve long-standing and intractable industry disputes**
- **Equalize differences between carrier networks**
- **Minimize rearrangement of existing networks, but accommodate technology changes**
- **Strike a balance between competing public policy goals of different industry segments, e.g., wireline, wireless, VoIP, rural vs. non-rural, wholesale vs. retail**

Edge Criteria

- **Missoula Plan's default interconnection rules use an *Edge* architecture to establish how telecommunications carriers will share the cost of linking their networks for exchange of *non-access* traffic**

- **An *Edge* is a location on the terminating carrier's network where it receives traffic to perform the termination function**
  - Terminating carrier designates its Edge locations
  - An Edge is generally the demarcation point where a carrier's interconnection obligation to transport its originating traffic ends

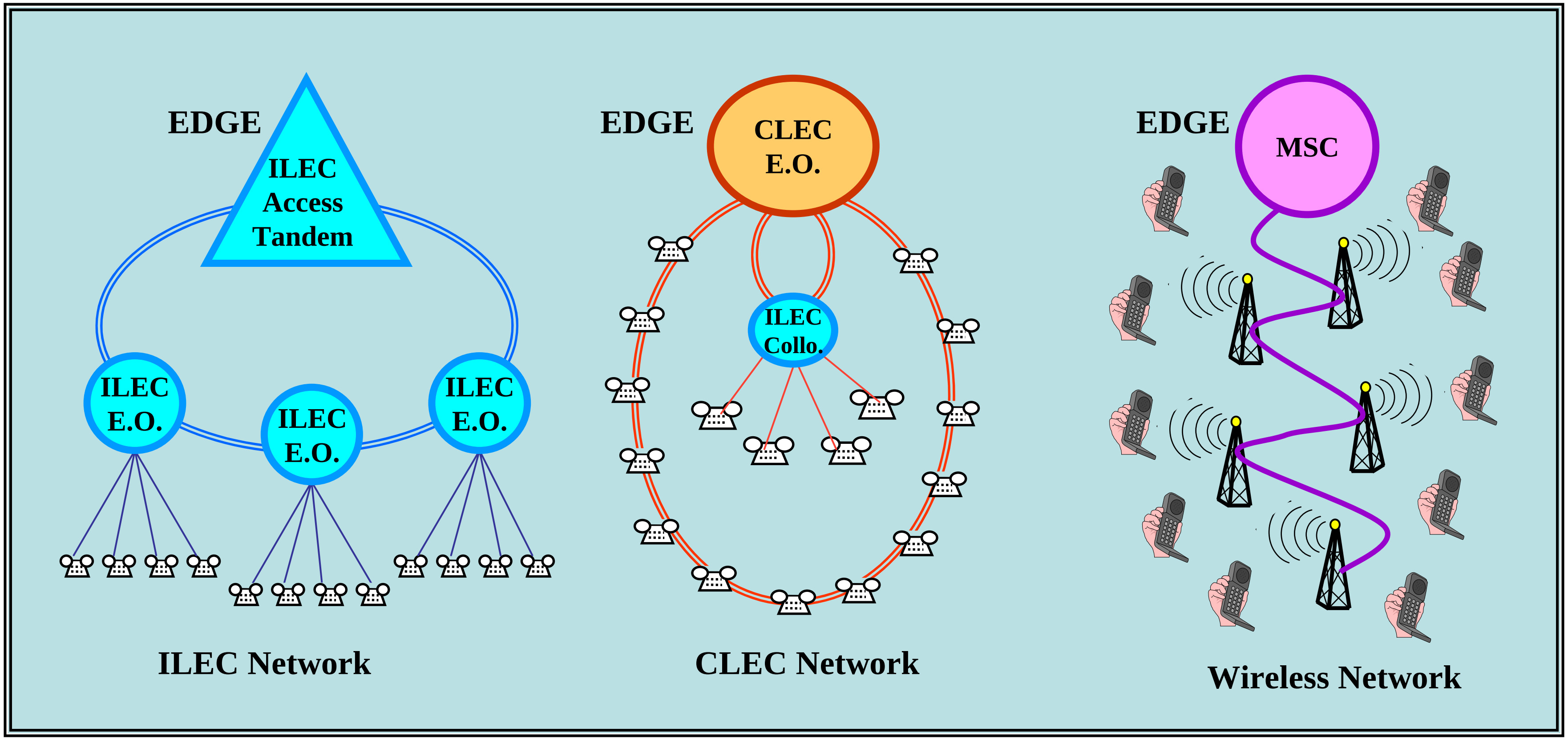
- **Edge locations must perform at least one of the following network functions**
  - End Office
  - Access Tandem
  - Mobile Switching Center (MSC)
  - Point of Presence (POP)
  - Trunking Media Gateway

- **To be designated an Edge, a network location must satisfy the following additional requirements**
  - Physical interconnection must be available
  - Direct and indirect interconnection must be available
  - All types of traffic must be terminated
  - Number portability must be available from the interconnecting carrier upon request except where suspension has been obtained

Benefits of an Edge Architecture

- Provides comparability among different network technologies and topologies
- Establishes network locations that can be used to allocate a fair share of the transport to interconnect (link) carrier networks

LATA Boundary



LATA Boundary

General Interconnection Framework

- **Interconnection refers to the linking of carrier networks for the exchange of traffic**
- ***Transport* is used to interconnect (link) carrier networks**
- **The carrier with the financial obligation for interconnection decides whether it will interconnect directly or an indirect interconnection arrangement**
- **A carrier must permit other carriers with the financial obligation for interconnection to physically interconnect at its Edges – physical interconnection must also be provided to tandem transit carriers**
  - ➢ Carrier requesting interconnection must be the carrier whose network will be directly interconnected, or indirectly interconnected with the providing carrier
  - ➢ Carrier will be provided with interconnection regardless of type of services it offers: retail, wholesale or both
  - ➢ Each carrier and each communications service provider served by a carrier will:
    - ✓ collaborate to complete calls that originate or terminate on the PSTN and will not block the exchange of traffic;
    - ✓ provide full portability of numbers assigned to end users of a communications service provider; and
    - ✓ offer interconnection to carriers that comply with these obligations

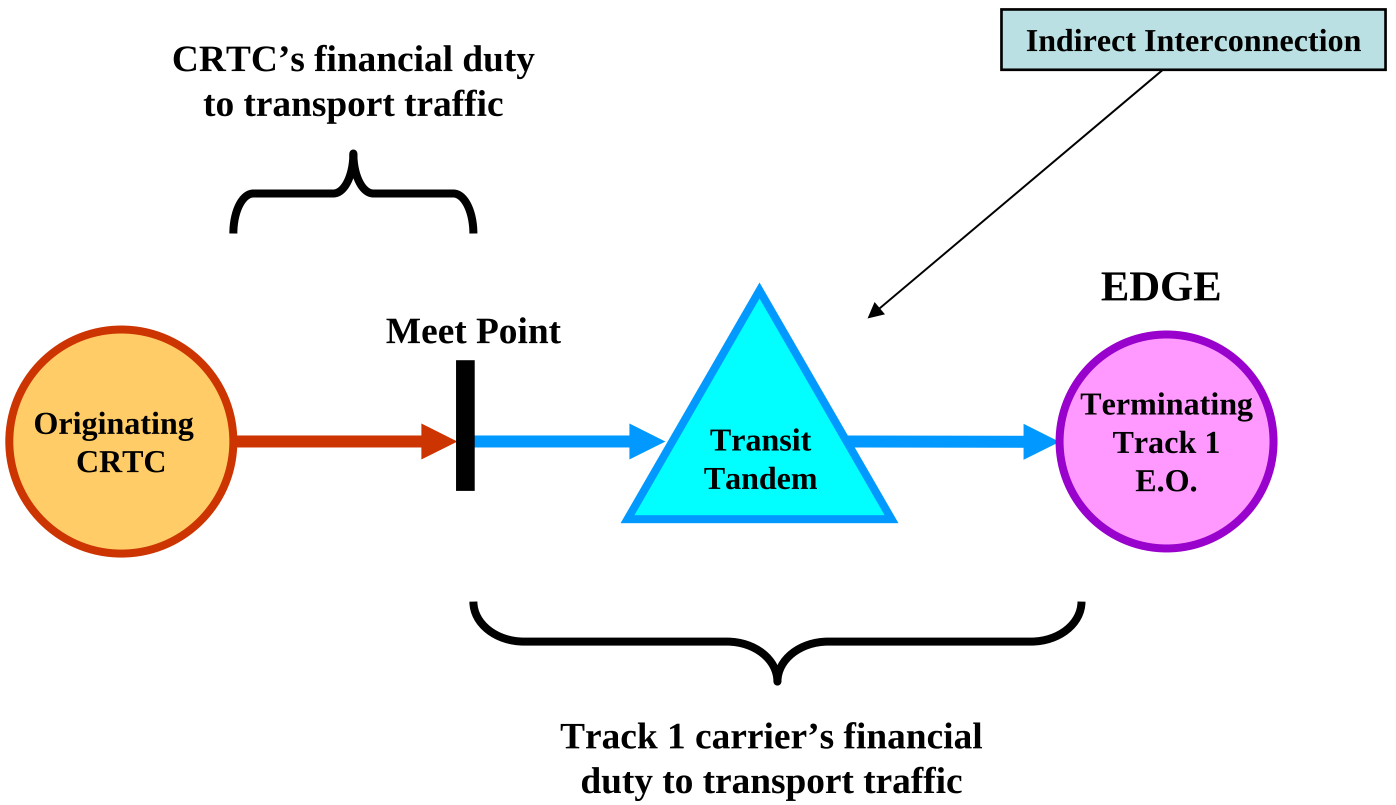
Interconnection Obligations

- **General Interconnection Rule: Each carrier has a financial obligation to *transport* its originating non-access traffic to the terminating carrier's Edge**
  - *Transport* refers to the transmission facilities a carrier requires to physically connect its network with the terminating carrier's network
  - Transport exceptions exist for out of balance traffic
  - This rule applies to non-access traffic originated by Track 1 carriers and to traffic exchanged between two CRTCs
- **The Rural Transport Rule governs interconnection between Track 1 carriers and CRTCs (Track 2 and Track 3 carriers)**
  - The General Interconnection Rule is adjusted to reflect the characteristics of CRTC networks
  - The Rural Transport Rule strikes a balance between competing public policy goals where every carrier should share an equivalent transport obligation vs. managing the size of the Restructure Mechanism
- **A carrier may satisfy its financial obligations for transport by utilizing the following options:**
  - Construct its own facilities
  - Obtain facilities from a third-party carrier
  - Purchase transport services from the terminating carrier

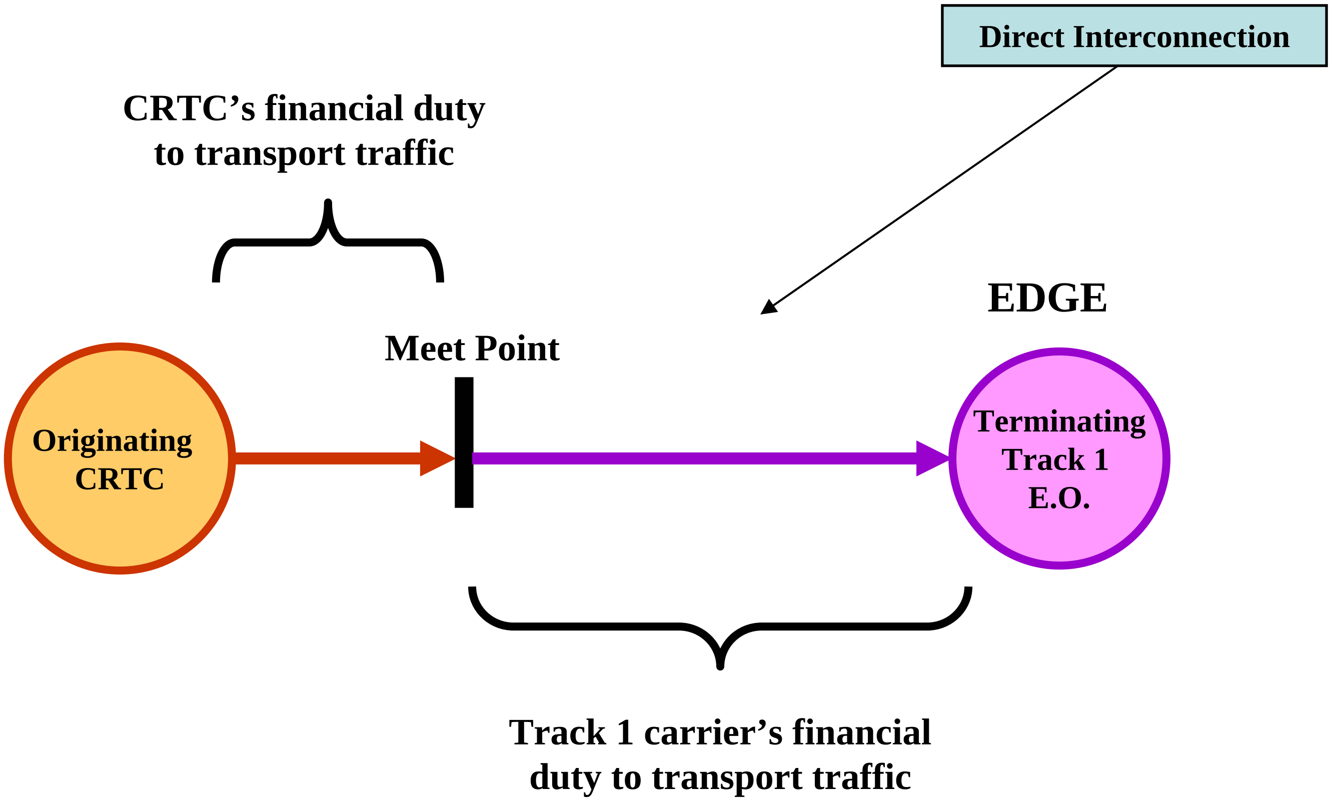
Rural Transport Rule

- **When a Track 1 carrier interconnects with a CRTC, the General Interconnection Rule requires the Track 1 carrier to transport its non-access traffic to the CRTC's Edge**
- **Under the Rural Transport Rule, the financial obligation for transporting CRTC originated non-access traffic is shared with the interconnecting Track 1 carrier**
- **The Track 1 carrier will establish the interconnection arrangement for CRTC originated non-access traffic and will decide whether interconnection will be direct or indirect**
  - ➢ If it elects to interconnect *indirectly* with the CRTC, the Track 1 carrier will have the financial obligation for the Tandem Transit Service
  - ➢ If the Track carrier elects to interconnect *directly*, the CRTC's financial obligation for transport is as follows:
    - ✓ Under the *modified* Rural Transport Rule requires a CRTC to bear the financial obligation for transporting its originating non-access traffic a distance not to exceed 10 miles beyond the meet point it shares with the Track 1 carrier.
    - ✓ Under the *full* Rural Transport Rule, the CRTC bears the financial obligation for the transport to deliver its originating non-access traffic to the meet point it shares with the Track 1 carrier.
    - ✓ The Track 1 carrier has the remaining financial obligation for the transport to deliver CRTC originated non-access traffic to its Edge for termination.
- **Certain Track 2 carriers that elect lower originating and terminating rates are entitled to the *full* Rural Transport Rule**
- **All Track 2 carriers that do not qualify for the *full* Rural Transport Rule and all Track 3 carriers will follow the *modified* Rural Transport Rule**

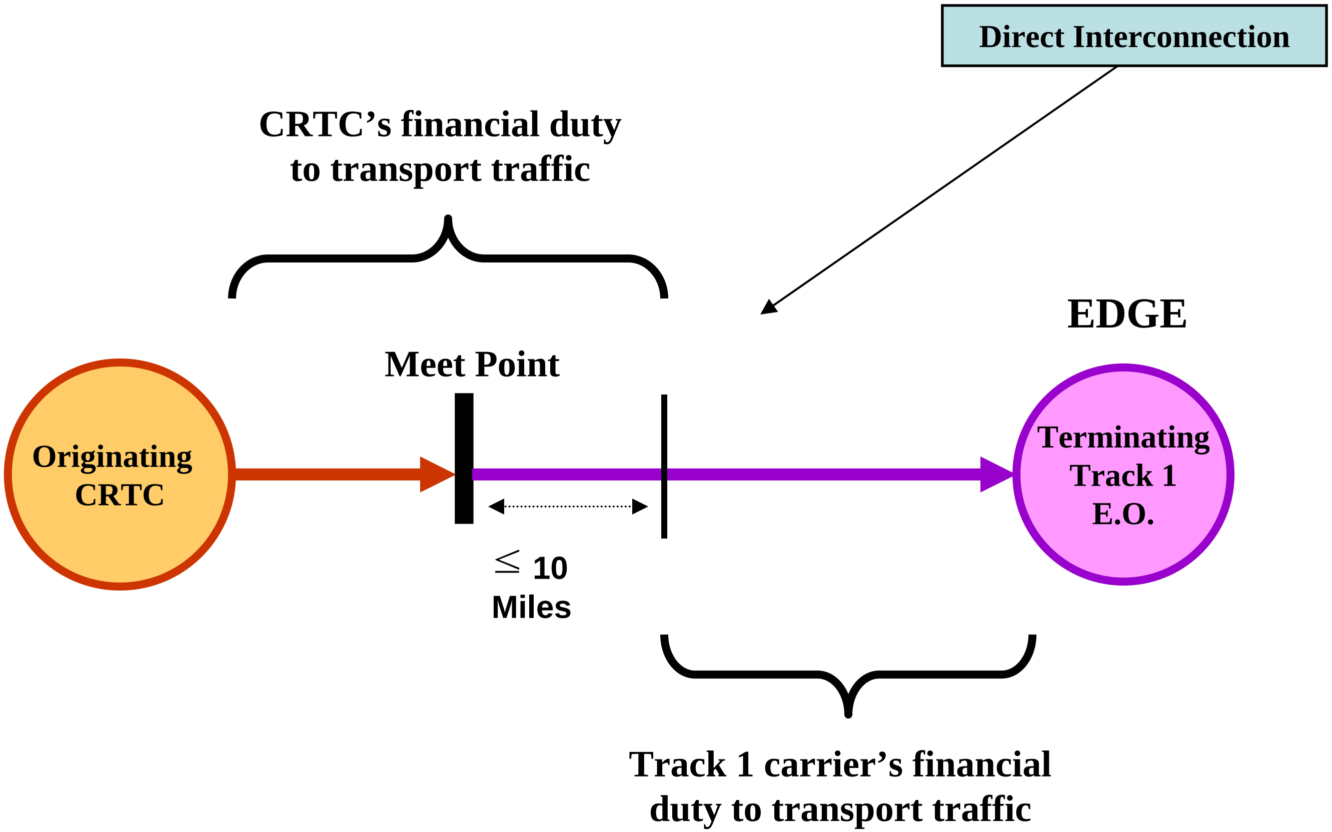
Rural Transport Rule



Full Rural Transport Rule



Modified Rural Transport Rule



Tandem Transit Service

- **Tandem Transit Service is a third party provided tandem switched transport service used to indirectly interconnect with the terminating carrier's Edge**
  - Tandem Transit Service is comprised of tandem switching and common transport
- **Under the Missoula Plan, existing transit service providers must continue to provide Tandem Transit Service**
- **The Missoula Plan establishes the rights and obligations of Tandem Transit Service providers and the carriers that purchase this service**
- **Tandem Transit Service is provided at a nationwide capped rate**
  - Tandem Transit Service providers are not allowed to geographically deaverage the nationwide rate
  - Rate cap is removed at Step 4 for transit routes that are within an MSA, otherwise the cap remains in place but increases by inflation beginning at Step 5
  - Tandem Transit Service providers will furnish call detail records at no additional charge
- **Premium services that may be offered are not covered by the nationwide rate cap**

Phantom Traffic Solution

- **The Missoula Plan recommends adoption of a comprehensive solution for phantom traffic**
- **Establishes call signaling rules that apply to all communications service providers and traffic identification obligations to help expeditiously resolve disputes**
  - With certain exceptions, every originating communications service provider must transmit telephone number of the calling party to intermediate and terminating carriers
  - With certain exceptions, every intermediate communications service provider must transmit without alteration the telephone number information it receives from another provider
  - When a provider's switch is equipped with SS7, it shall utilize SS7 when interconnecting directly with another provider's switch that is equipped with SS7
- **Recommends an FCC enforcement structure designed to promote the timely review and resolution of phantom traffic disputes**
- **Proposes development of an *industry-driven* framework for the uniform generation and exchange of call detail records**
- **Establishes a transit rate that allows these records to be provided at no additional charge**
- **Recommends an interim order, pending adoption of comprehensive intercarrier compensation reform, that will:**
  - Implement the call signaling rules
  - Establish an interim process for the provision of call detail information and charges in certain circumstances

Intercarrier Compensation Framework

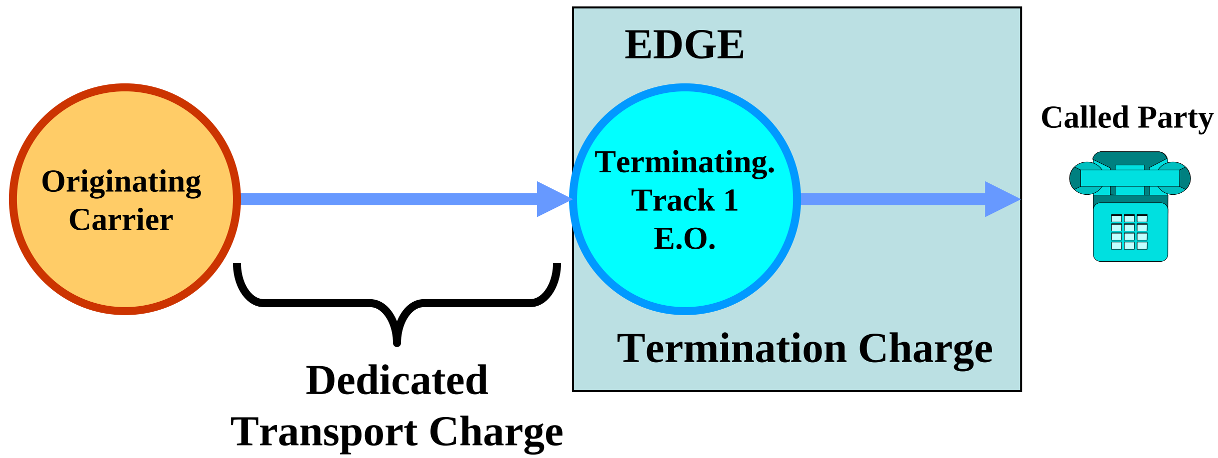
- **Intercarrier compensation under the Missoula Plan covers the following types of carrier-to-carrier charges.**
  - Rates a terminating carrier charges when another carrier purchases the terminating carrier's transport services to directly interconnect in accordance with its interconnection obligations
  - Rates a third party carrier charges for Tandem Transit Service so carriers can indirectly interconnect
  - Rates a terminating carrier charges for the termination of another carrier's non-access traffic
- **The Missoula Plan utilizes calling and called telephone numbers to determine when traffic should be subject to switched access charges or reciprocal compensation charges**
- **Charges for transport services purchased to directly interconnect are either flat-rated or usage-based as follows**
  - Dedicated transport, i.e., transport that only carries traffic between the two carriers, will be charged for on a flat-rated basis
  - Common transport, i.e., transport that is tandem switched and carries traffic exchanged between more than two carriers, will be charged for on a usage basis
- **Termination is the acceptance of non-access traffic by a terminating carrier at its Edge and the delivery of the traffic to the called party**
  - Termination charges are usage-based
  - Termination charges cover any transport (dedicated transport, tandem switching and common transport) and end office switching a terminating carrier uses to deliver traffic from its Edge to the called party

Telephone Numbers Approach to Categorizing Traffic

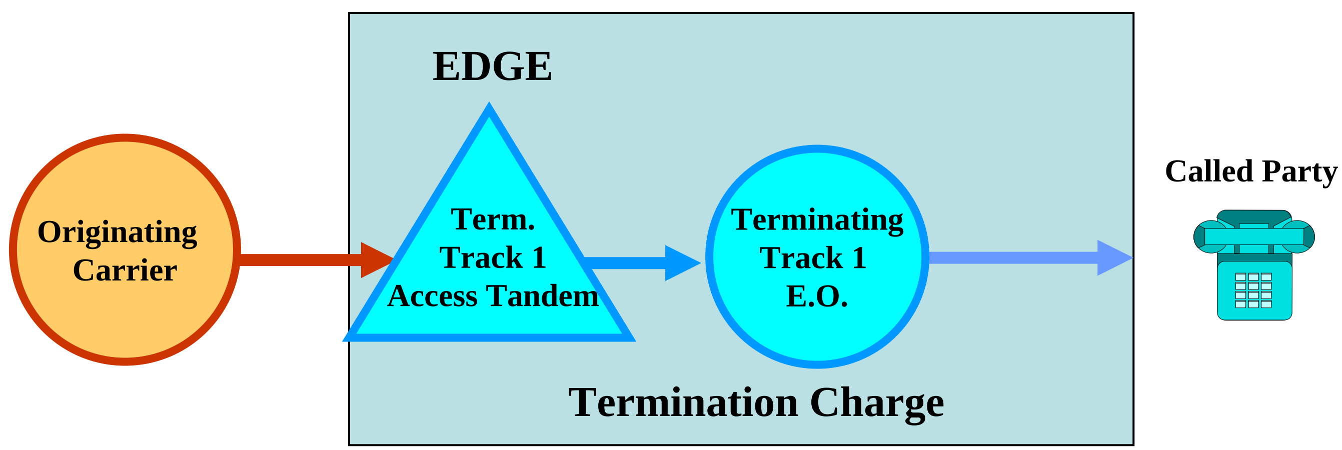
- **Calling and called telephone numbers are used to determine whether traffic should be categorized as access traffic or non-access traffic**
  - The *calling telephone number* refers to the telephone number assigned to the end user that originates the call (not a PRI line)
  - The called telephone number refers to the telephone number dialed by the end user that originated the call
- **Wireline-to-wireline traffic generally will be treated as access if the calling and called telephone number are associated with rate centers that are in different reciprocal compensation local calling areas**
- **Wireless-to-wireline traffic generally will be treated as access traffic if:**
  - The call is routed to an IXC that has a retail toll service relationship with the calling party
  - The calling and called telephone number are associated with different rate centers in different MTAs
  - Other traffic will be treated as reciprocal compensation traffic
- **Wireline-to-wireless traffic generally will be treated as reciprocal compensation if the calling and called telephone number are within the MTA and are in:**
  - The same rate center
  - Rate centers covered by an EAS agreement *or*
  - Different rate centers within an MTA, and the LEC is the retail toll service provider
- **CMRS providers will be entitled to charge IXCs $0.0007/MOU for termination beginning at Step 2 of the Plan**

Track 1 Transport & Termination Charges

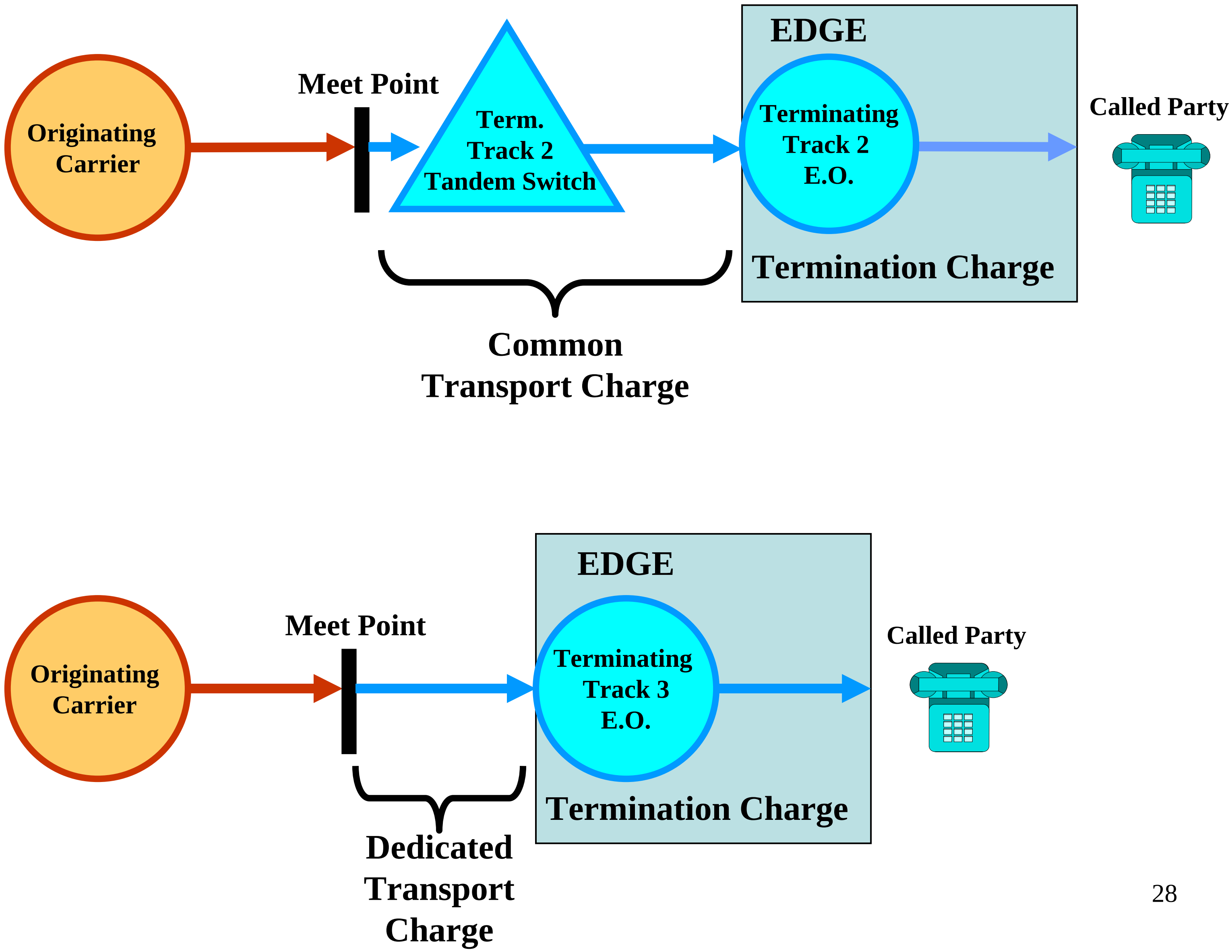
Termination by a “Flat”
Track 1 Carrier Network”



Termination by a
“Tandem-Based” Track 1
Carrier Network



Track 2 and 3 Transport & Termination Charges



Out-of-Balance Traffic Safeguards

- **The Missoula Plan contains several out-of-balance safeguards that operate as exceptions to the interconnection and intercarrier compensation frameworks for non-access traffic**
  - Out-of-balance traffic is all non-access traffic exchanged between two carriers that exceeds a 3:1 termination-to-origination ratio
- **Track 1-to-Track 1 Transport Safeguard**
  - The carrier terminating the larger amount of traffic will have the financial obligation for *all* transport to interconnect the two carriers
- **Out-of-Balance Traffic Safeguard**
  - Applies where the terminating Track 2 or Track 3 carrier charges higher reciprocal compensation rates than the originating carrier
  - Terminating transport charges will not apply to the out-of-balance traffic
  - The termination charge will be the lower of the currently effective termination charge or $0.0007/MOU
- **There is a complementary set of rules that deal with compensation for ISP-bound traffic**
  - For Track 1 and 2 carriers, the FCC’s ISP-bound framework will be eliminated at Step 3 of the Plan
  - The ISP-bound framework will remain in place for Track 3 carriers, except that the rate will be $0.0005/MOU at Step 4

Voluntary vs. Mandatory

- **The Plan's supporters hope and expect the Missoula Plan will be implemented nationwide**

- **States will have discretion to decide whether to participate in certain aspects of the Plan**
  - ***Reform for Tracks 1 and 2:*** State implementation will be voluntary at Step 1 for *intrastate originating switched access*. The Plan will include incentives designed to encourage State implementation, e.g., SLC caps will increase even in States that do not adopt the Plan.
  - ***Reform for Track 3:*** State adoption of the Plan's Track 3 rate levels for *originating and terminating intrastate switched access* will be voluntary. The Plan will include incentives starting at Step 1 to encourage State participation.

- **In all other respects, the Plan's terms and the rules the FCC adopts to implement those terms, will be mandatory – the mandatory provisions of the Plan will include, for example:**
  - Transitioning all terminating rates for Track 1 and 2 carriers, including terminating intrastate switched access, to reciprocal compensation.
  - Implementation of call signaling rules, process to exchange call detail records, negotiation of formal interconnection agreements, Tandem Transit Service, the interconnection framework and the use of telephone numbers to determine the whether switched access or reciprocal compensation charges apply will be mandatory.
  - Establishment of the Restructure Mechanism, the Early Adopter Fund and an incentive regulation option.

Why the Plan is Good for Consumers and the Industry

- **If fully adopted, the Plan would inject long overdue stability to telecom market, giving customers of <u>all</u> technologies in <u>all</u> service areas the benefits of that stability: *investments in broadband infrastructure***
- **A fully funded Restructure Mechanism will enhance universal service and provide long-term sustainability for rural areas that does not exist today**
- **Creates a structure for a balanced transition from the circuit switched world to a broadband/VoIP world**
- **Minimizes or eliminates distinctions between types of traffic, e.g., local, access, wireless, ISP-bound, VoIP) by unifying rates wherever possible and thus reduces regulatory-induced arbitrage**
- **Significantly reduces disputes and litigation at the state and federal levels**
- **Establishes an interconnection framework that balances the financial responsibilities among carriers and technologies**
- **Creates comprehensive phantom traffic solution, further reducing arbitrage**
- **Rewards states that proactively take/have taken action to reduce or unify intercarrier rates**