

# An Industry in Transition – Key Issues



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# Key Takeaways

- The communications industry has been transitioning from TDM to IP technology for some time - both the core network & retail facing network
- Carrier-to-carrier interconnection technology must keep pace
- Sound retail competition depends on competitively neutral, efficient, and modern carrier-to-carrier interconnection (i.e. IP interconnection)

# IP Communications is Not New

- IP has been used for voice communications for well over a decade
  - Early data networks in the 1960s
  - TCP/IP standardized in the early 1980s
  - VoIP has been around since 1990s
  - AT&T IP-in-the-middle petition in 2002
  - Vonage petition in 2003
  - SBCIS petition in 2004
- Sprint's core wireless network is being converted to IP

# IP (Internet Protocol) Interconnection - the issue, the debate, the importance

- ***What is IP?***

Internet Protocol is a packet-based protocol (a set of technical rules) used for communicating across a packet-switched network.

- ***What is IP or IP-IP interconnection?***

Connecting carrier networks using the Internet protocol for the purpose of exchanging voice calls.

- Voice traffic exchange does not occur over or via the Internet and is not commingled with Internet traffic

- ***What is the issue surrounding IP?***

Some carriers believe the transition to IP technology should trigger complete deregulation, including the elimination of regulatory oversight of carrier-to-carrier interactions.

- There are two separate issues: Retail regulation and carrier-to-carrier regulation

- ***What is the debate over IP Interconnection?***

A change in technology change from TDM to IP does not change carrier rights & obligations. Regulatory oversight of carrier-to-carrier issues is necessary.

- ***What is the importance of the debate?***

1) Carrier-to-carrier interconnection continues to be a prerequisite to enable competition and to ensure calls reach their destination.

- IP interconnection based on just and reasonable terms is essential for competitive carriers to foster competition in the retail voice market.
- Competition drives innovation and lower prices.

2) A regulatory backstop is necessary to ensure competitors can obtain IP interconnection with incumbents on terms that will enable robust retail competition.

- Regulations are essential to ensure 1) good faith negotiations, 2) nondiscrimination, 3) dispute resolution
- The seventeen post-Telecommunications Act years have more than proven the need for a regulatory backstop to enable competition.

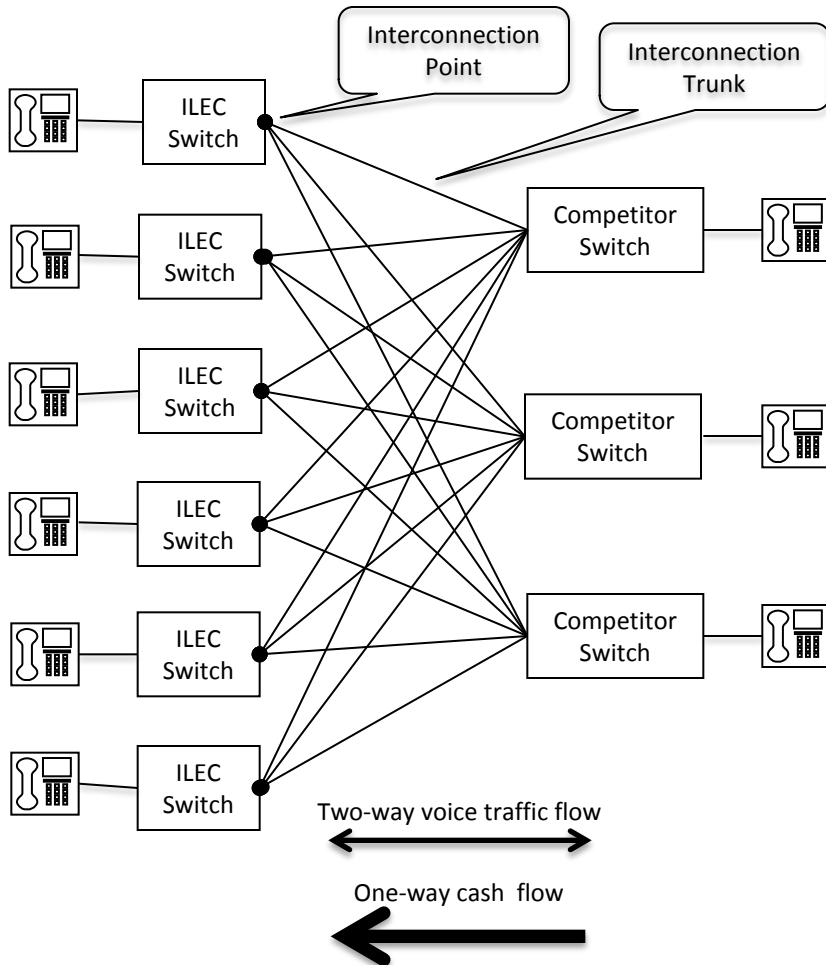
# IP Interconnection - Consumer Benefits

- IP Interconnection will lead to the expansion of the broadband network which is in the public interest.
- IP Interconnection is inherently more efficient resulting in a reduction in competitor costs which is beneficial to competition which is in the public interest.
- IP Interconnection enables advanced features such as high definition voice and social presence (e.g., availability, portrait icon, tagline, geo-location, nickname)

# IP Interconnection Is Pro-Competition

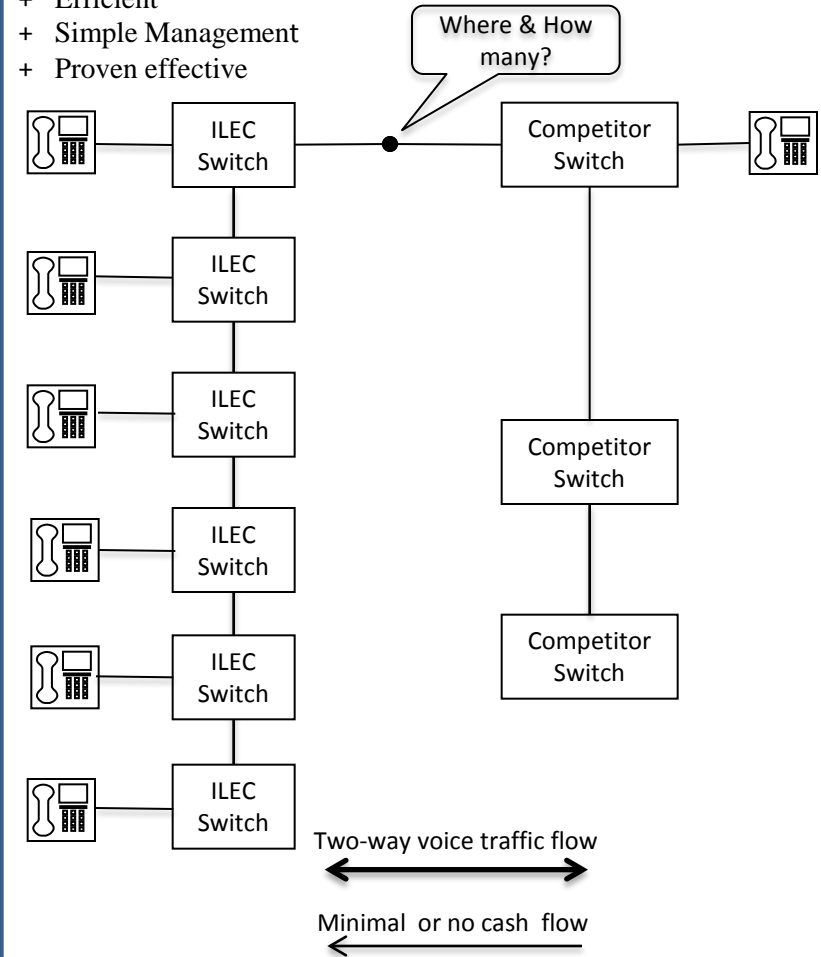
## Current TDM Carrier-to-Carrier Interconnection

- *Dozens or Hundreds of Interconnections per State*
- Expensive for Competitors (\$\$ for ILECs)
- Inefficient
- Complex to Manage



## IP Interconnection

- + *~4-6 Interconnections per ILEC nationwide*
- + Minimal Cost
- + Competitively Neutral Cost
- + Efficient
- + Simple Management
- + Proven effective



# IP Interconnection - What is Needed From Policy Makers

## From the States

- State Commissions need to acknowledge and use current 251/252 authority (or independent state) to require IP interconnection and to exercise their authority over carrier disputes on IP interconnection issues when brought to their attention.
- If enacting legislation or promulgating rules regarding telecommunications issues(e.g., ILEC deregulation), carrier to carrier interconnection must be addressed.
- Proactively take on the issue of IP interconnection and render decisions

## From the FCC

- FCC re-affirmation that its Connect America Fund Order clearly requires LECs to negotiate interconnection in good faith pursuant to Sections 251 and 252 of the Telecommunications Act, regardless of technology.
- Specifically identify which practices constitute bad faith acts on the part of the LECs when negotiating interconnection agreements. Examples would include:
  - Using affiliates as a shield to circumvent the obligation to interconnect with competing carriers
  - Claiming technical infeasibility
- Establishment of interconnection rules ensuring all voice traffic can be exchanged at regional Points of Interconnection (POIs)
- Complete its Further Notice of Proposed Rulemaking (FNPRM) on IP Interconnection

# IP Interconnection - FCC's Connect America Fund Order

## FCC's CAF Order

- FCC ordered good faith negotiations for IP interconnection
  - Both good faith negotiations and interconnection are grounded in Section 251

## Connect America Fund Order ¶ 1010

- IP interconnection between carriers is critical.
- “We make clear however, that our decision to address certain issues related to IP-to-IP interconnection in the FNPRM should not be misinterpreted to suggest any deviation from the Commission’s longstanding view regarding the essential importance of interconnection of voice networks.”

## Connect America Fund Order ¶ 1011

- “In particular, even while our FNPRM is pending, we expect all carriers to negotiate in good faith in response to requests for IP-to-IP interconnection for the exchange of voice traffic.”
- “The duty to negotiate in good faith has been a longstanding element of interconnection requirements under the Communications Act and does not depend upon the network technology underlying the interconnection, whether TDM, IP, or otherwise.”
- “Moreover, we expect such good faith negotiations to result in interconnection agreements between IP networks for the purpose of exchanging voice traffic.”

## FNPRM – key paragraphs

- 1335, 1340, 1341, 1342, 1348



## IP Interconnection - State Level Current Events

### Massachusetts Department of Telecommunications and Cable (“DTC”) D.T.C. 13-2 – Petition for a Determination that Verizon IP-to-IP Interconnection Agreements must be Filed for Review and Approval for Associated Relief

- Competitive Carriers Group petitioned the DTC to:
  - Determine the Verizon’s FIOS Digital Voice interconnection agreement with Comcast must be reviewed and approved by the DTC in accordance with Section 252 of the Telecommunications Act.
  - Determine if the DTC may reject the agreement if there is evidence of discrimination.
  - Rule that the agreement must be made available for adoption in accordance with the Telecommunications Act.

### Puerto Rico Docket No. JRT-2012-AR-0001 – Liberty Cablevision of Puerto Rico Petition for Arbitration With Puerto Rico Telephone Company

- The Puerto Rico commission declared its authority over IP interconnection in an arbitration case between the incumbent and a competing cable telephony provider, prompted when the incumbent refused to allow IP interconnection to its competitor.
  - Liberty is entitled to full Section 251 rights under the Telecommunications Act, without any limitations.
  - The FCC’s Connect America Fund Order expressly refers to ‘providers ability to use existing Section 251(c)(2) interconnection arrangements to exchange VoIP-PSTN traffic.
  - The FCC’s Connect America Fund Order states its intention to promote IP broadband networks.
  - **FCC has not preempted state authority over IP interconnection disputes**

### Ohio PUC Case No. 12-922 TP-ORD – Review of Chapter 4901:1-7 of the Administrative Code, Local Exchange Carrier-to Carrier Rules

- Modified the rules under 4901:1-7-06 of the Administrative Code to emphasize that interconnection should be technology neutral and therefore not discriminate against VoIP technology.

## IP Interconnection - State Level Current Events (continued)

### **Illinois Commerce Commission Docket No. 12-0550 – Sprint’s Petition for Arbitration, Pursuant to Section 252(b) of the Telecommunications Act of 1996, to Establish an Interconnection Agreement With Illinois Bell Telephone Company (“AT&T”)**

- Sprint’s Petition included language for IP interconnection for all voice traffic.
  - The Commission declined to determine any rates, terms, or conditions under which IP interconnection would occur, consistent with the requirements of Section 251 of the Act or the FCC and ICC rules and regulations implementing it.
  - The Commission further noted that while it might or might not have the authority to order IP interconnection, this decision cannot be made until it is presented with an IP-to-IP interconnection proposal of sufficient detail to allow it to assess whether such a plan is technically feasible or otherwise comports with the requirements of the 1996 Act.
  - On appeal – U.S. District Court, Northern District of Illinois, Eastern Division

### **Michigan Public Service Commission Case No. U-17349 – In the Matter of the Petition of Sprint Spectrum, L.P. for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996, to Establish an Interconnection Agreement With Michigan Bell Telephone Company d/b/a AT&T Michigan**

- Sprint’s Petition includes language for IP interconnection for all voice traffic.
- Final Order pending

## IP Interconnection - State Level Current Events (continued)

**Indiana Utility Regulatory Commission Case No. 44409 - *In the Matter of Sprint Spectrum L.P.'s Petition for Arbitration Pursuant to Section 252(B) of the Communications Act of 1934, as Amended by the Telecommunications Act of 1996, and the Applicable State Laws For Rates, Terms and Conditions of Interconnection with Indiana Bell Telephone Company, Inc. d/b/a AT&T Indiana and AT&T Corp.***

- Sprint's Petition includes language for IP interconnection for all voice traffic

### **NARUC Federalism Task Force Report – September 2013**

- Section IV.4. (page 11) - “Sections 251 and 252 of the Act are technology neutral. The rules for interconnection do not and should not depend on the technology used by the interconnecting providers.”

# IP Interconnection – FCC Comments of Interested Parties

<u>Commenting Party</u>	<u>Regulatory Backstop Needed as a Check On ILEC Market Power</u>	<u>Act Technology Neutral</u>	<u>ILEC's Actions On Interconnection Anti-Competitive</u>	<u>IP Regulation Equals Internet Regulation</u>
<b><u>Wireless Carriers:</u></b>				
Sprint	X	X	X	
T-Mobile	X	X	X	
Merto PCS	X	X		
<b><u>Cable Providers:</u></b>				
Cox	X		X	
Cablevision	X	X	X	
Charter	X	X	X	
<b><u>Other Competitive Carriers:</u></b>				
Combined Comments of Cbeyond, Earthlink, Integra, Level 3 and tw telecom	X		X	
<b><u>Competitive Carriers Assoc.</u></b>	X	X		
<b><u>Consumer Groups:</u></b>				
National Assoc. of State Utility Consumer Advocates	X	X	X	
Public Knowledge	X	X		
Free Press	X		X	
Ad-Hoc Telecom Users Committee	X		X	
<b><u>States:</u></b>				
California PUC	X			
Massachusetts DTC	X	X		
Pennsylvania PUC	X			
National Assoc. of Regulatory Utility Commissioners	X	X		
Michigan Public Service Commission	X	X		
<b><u>ILECs:</u></b>				
AT&T				X
Verizon				X