



# IP/PSTN Access Traffic Should Not Be Given Preferential Treatment

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Voice | Data | Internet | Wireless | Entertainment



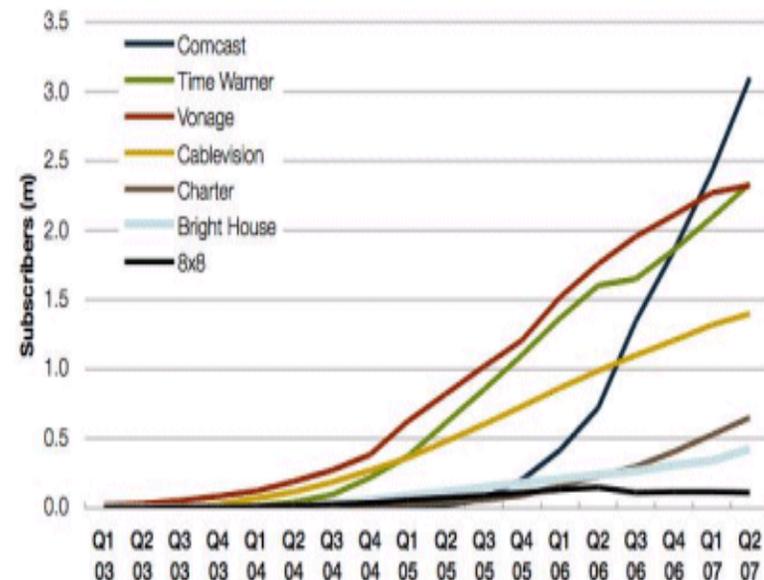
## Outline

- ▶ VoIP Deployment Is Taking Off
- ▶ Mechanics of IP-PSTN Origination
- ▶ Treatment of IP-PSTN Traffic Today
- ▶ Does The ESP Exemption Apply to IP-PSTN Traffic?
- ▶ “Old Rules for the Old Network; New Rules for the New Network”
- ▶ Competitive Neutrality & Contribution to Carrier-of-Last-Resort Obligations
- ▶ Importance of Access Charges to Universal Service
- ▶ The Answer is Comprehensive Intercarrier Compensation Reform



## VoIP Deployment Has Taken Off

- ▶ Preserving access charge neutrality is vital because of rapid VoIP growth.
- ▶ Residential VoIP market share exploded in 2006-07 driven by cable deployment.
- ▶ Atlantic-ACM projects 33 million residential VoIP lines in 2010.
- ▶ Plus Verizon and AT&T have many residential VoIP lines.
- ▶ The enterprise VoIP market share is large and growing as well.
- ▶ Worldwide VoIP could grow to over 240 million lines by 2012 (ABI).

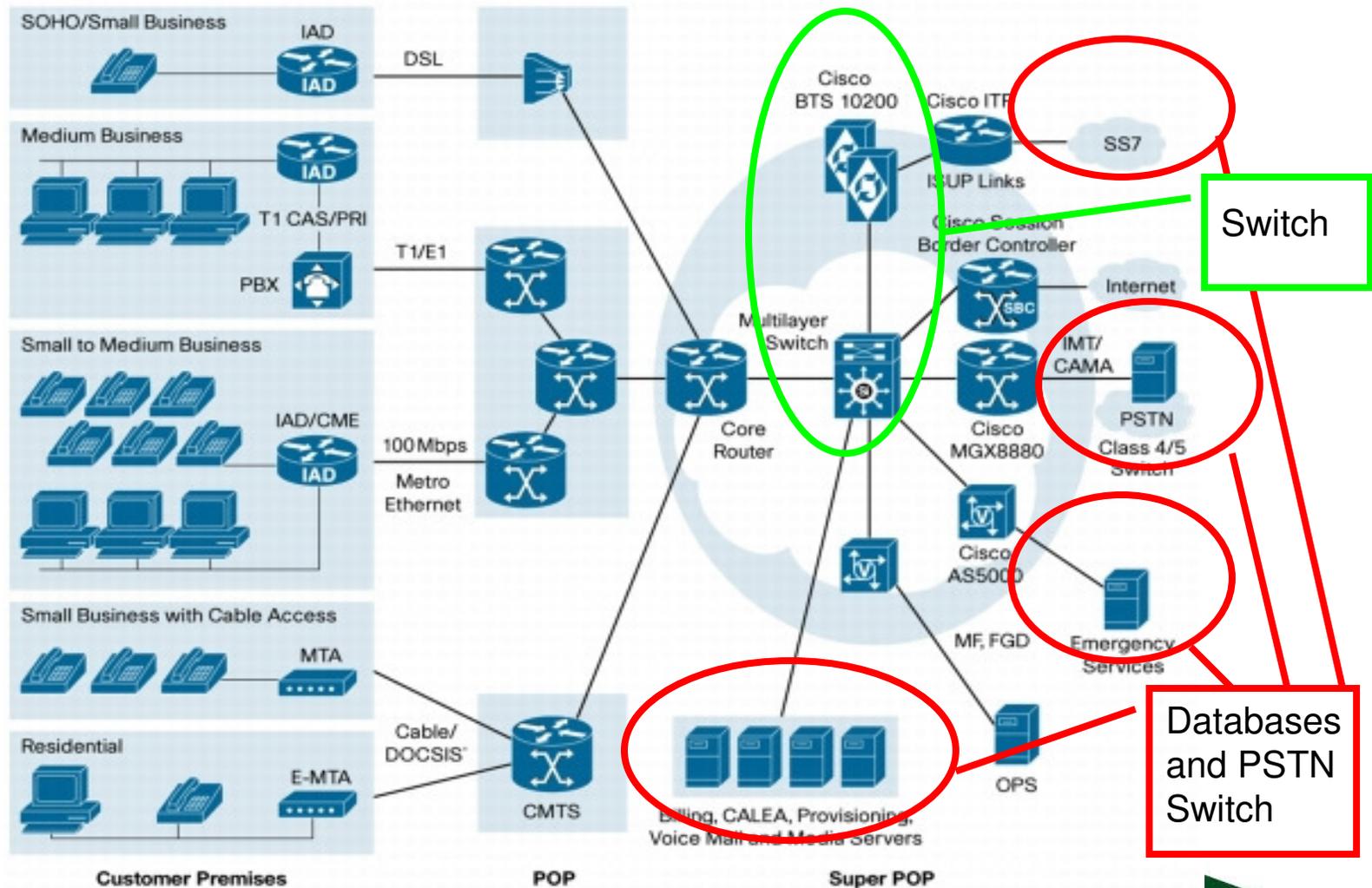




## Mechanics of IP-PSTN Origination

- ▶ Most IP call origination actually looks a lot like PSTN call origination, as shown on the next slide.
  - It uses same signaling, public safety, CALEA, and other databases and servers.
  - Assigns the same NANPA numbers for incoming PSTN calls.
  - A big difference is the separation of call control (intelligence) from call handling, which creates many efficiencies.
  - VoIP is also packet-based (like ATM), which offers shared transmission with other packet-based services.
  - IP calling can also be handled without use of the PSTN when both the calling and called parties are served using IP. This traffic is not implicated by an IP-PSTN policy or rule.
  
- ▶ Most IP voice service is sold as a PSTN substitute. To the extent voice-embedded IP applications are substantially different, they account for a small percentage of IP-originated traffic.

# Cisco Network Configuration for Voice over Broadband





## Mechanics of IP-PSTN Origination (con't)

- ▶ Lists of new and innovative call features offered with VoIP often look a lot like lists of PSTN call features. For example, EQ will offer the following over the PSTN:
  - ICF (EMBARQ Find Me Follow Me with EMBARQ Call Transfer)
  - Network Address Book
  - Unified Messaging
  - SMS to Landline
  - Voice to Screen
  - Home and Small Office Hub
- ▶ If an IP provider does not want to perform the PSTN conversion, EQ and other LECs (e.g., using Deep Packet Inspection) could accept the traffic in IP and perform the conversion to the PSTN and calculate the appropriate access charges
- ▶ The real difficulty is distinguishing IP-originated traffic from other traffic once it has been put onto the PSTN.



## Treatment of IP-PSTN Traffic Today

- ▶ The best assessment is that most IP-PSTN traffic has historically been delivered pursuant to normal PSTN rules.
  - We had not seen significantly disproportionate reductions in access minutes.
  - Some of our interconnection agreements specify PSTN treatment.
- ▶ Most IP-PSTN traffic appears to contain CPN.
  - Customers likely would be upset if it were not included.
  - The “one call” approach applied using Calling Party and CPN generally works, particularly in light of factoring arrangements.
- ▶ One carrier paid only interstate access charges.
- ▶ Increasingly, some carriers claim the ESP Exemption and refuse to pay more than reciprocal compensation for terminating access.
- ▶ IP-originated traffic is indistinguishable from other traffic once on the PSTN.



## Does The ESP Exemption Apply to IP-PSTN Traffic?

- ▶ As USTelecom, AT&T, VZ, and others have explained, the answer is “NO”.
- ▶ IP-PSTN traffic uses the PSTN the same way as access traffic, and in competition with access traffic.
- ▶ IP providers do not qualify as an “infant industry” in need of protection.
- ▶ The VoIP provider originating the traffic is not seeking to communicate with its own customer, but rather deliver voice traffic to PSTN users.
- ▶ The carrier handing traffic to the LEC is not an ESP.
- ▶ The exemption was not meant to cover voice traffic.



## “Old Rules for the Old Network; New Rules for the New Network”

- ▶ The best policy for the PSTN, and for the future of the Internet is a clear dividing line.
- ▶ On the Internet:
  - Regulators won't impose broadband buildout mandates (at least not without compensation) where it is uneconomic.
  - Regulators won't force IP providers to terminate traffic at regulated rates.
- ▶ On the PSTN:
  - Regulators won't force LECs to terminate IP-originated traffic on preferential terms.
  - Regulators will instead treat all PSTN traffic the same.



## Competitive Neutrality & Contribution to Carrier-of-Last-Resort Obligations

- ▶ It is important that regulation not further skew competition between voice providers.
- ▶ Cable providers and others using VoIP do not need additional competitive advantages.
- ▶ Instead, it is important that IP/PSTN traffic continue to contribute to the cost of carrier-of-last-resort obligations until intercarrier compensation reform is implemented.
- ▶ Otherwise, new USF support will be required *or* service to high-cost areas will collapse.



## Intercarrier Compensation Supports Government-Imposed Carrier-of-Last-Resort Obligations

- ▶ Without access charges, CoLR Obligations would be “unfunded mandates.”
- ▶ Keeping in mind that competitive services make only reasonable returns by definition, Embarq makes only reasonable returns with access revenue:

ARMIS ID	Operating Company	Total Company "STS" ROR	Interstate ROR (per ARMIS 492)	Intrastate ROR
UCFL	Embarq-Florida Incorporated	9.15%	33.54%	2.91%
UCNC	Embarq Local Telephone Companies - North Carolina	14.03%	34.94%	8.60%
UCSE	Embarq Local Telephone Companies - Southeast	13.93%	34.91%	8.48%
UTOH	United Telephone Company of Ohio	16.62%	53.20%	9.53%
UTIN	United Telephone Company of Indiana, Inc.	21.40%	58.90%	12.43%
UTEG	Embarq Local Telephone Companies - Eastern	14.30%	47.02%	7.05%
UCMW	Embarq Local Telephone Companies - Midwest	10.70%	25.15%	6.76%
CENV	Central Telephone Company - Nevada Division	5.93%	47.08%	-3.84%
UTNW	Embarq Local Telephone Companies - Northwest	8.74%	27.39%	2.48%
<b>ELOC</b>	<b>Embarq Local Operating Companies</b>	<b>11.38%</b>	<b>35.75%</b>	<b>5.20%</b>



## The Answer is Comprehensive Reform

- ▶ Embarq supports the ITTA and USTelecom modifications to the Appendix C proposal released by the Commission.
- ▶ Ultimately, the CoLR obligation must be supported, as required by section 254 of the Act.
- ▶ Until the support in access charges is replaced, all voice providers must pay the same intercarrier compensation to preserve competition and cover the CoLR obligation.
- ▶ At a minimum, the Commission should deny the Feature Group IP petition rather than let it be the “tail wagging the dog” on intercarrier compensation reform.