

From PSTN to IPT








The Internet Telephony Service Provider

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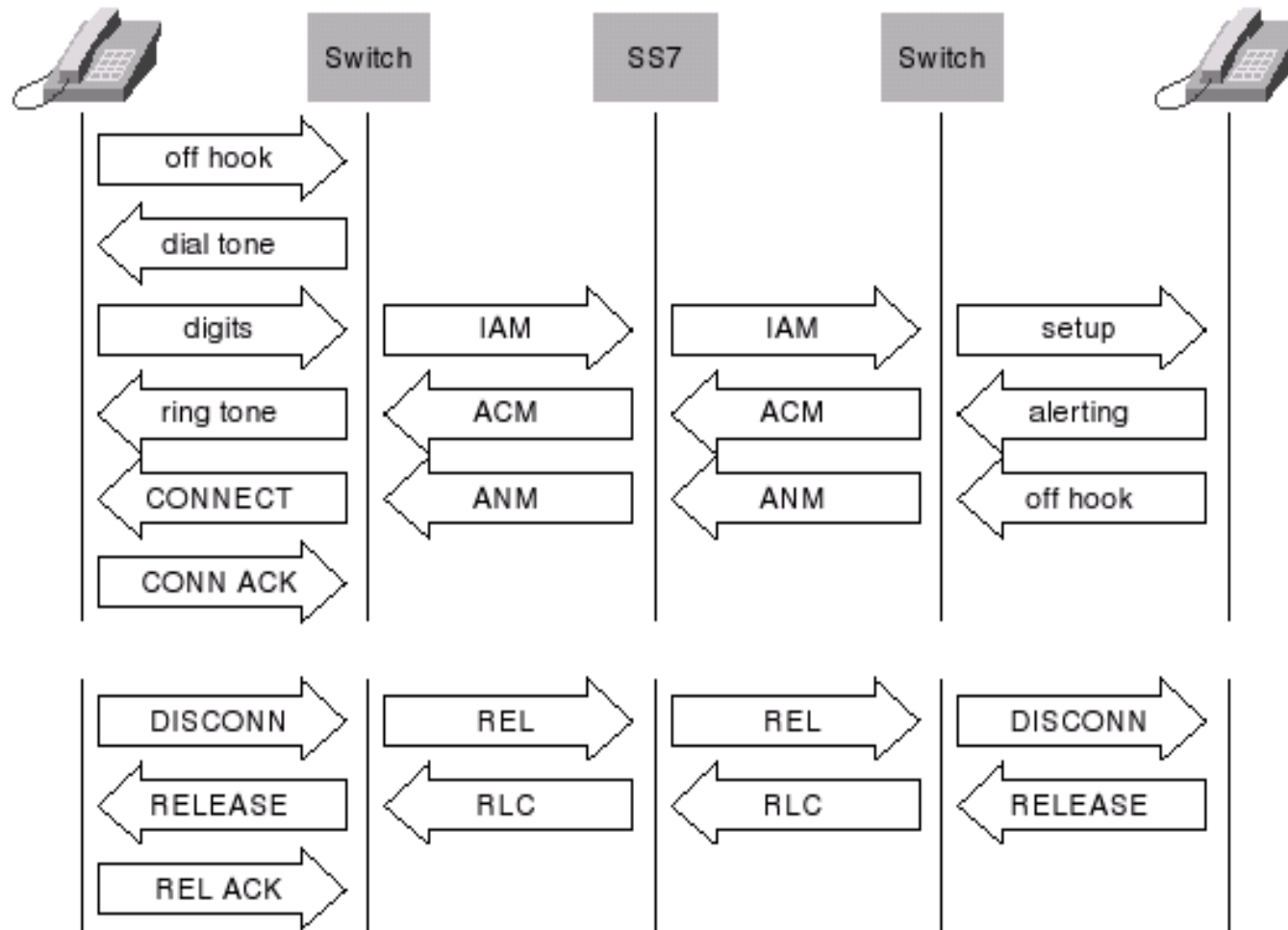
Presentation Plan

-  How VOIP addresses problems inherent in the PSTN
-  Description of a emerging business model: The ITSP
-  How the ITSP works and interfaces with the PSTN
-  Benefits of the ITSP to consumers and telcos
-  Emerging broadband trends leading to a end-to-end IPT set-up
-  IPT in the residential and business sector
-  ITSP trends in the world





PSTN Today...

-  “Channel” based, not data based
-  Major Opex/Capex to expand
-  Consumers are 'Channel' Locked
-  a-law requires a 64Kbps circuit





Local Call on a PSTN







Drawbacks of the PSTN

-  Data is overtaking voice as the primary traffic
-  The PSTN cannot respond quickly to new features
-  D/V/V convergence is not possible
-  Expansion is a costly proposition







VOIP to the rescue

-  Utilizes commodity networks
-  The IP network itself is 'dumb'
-  Data rather than channel based
-  Seamless integration with other VOIP networks

The Internet Telephony Service Provider

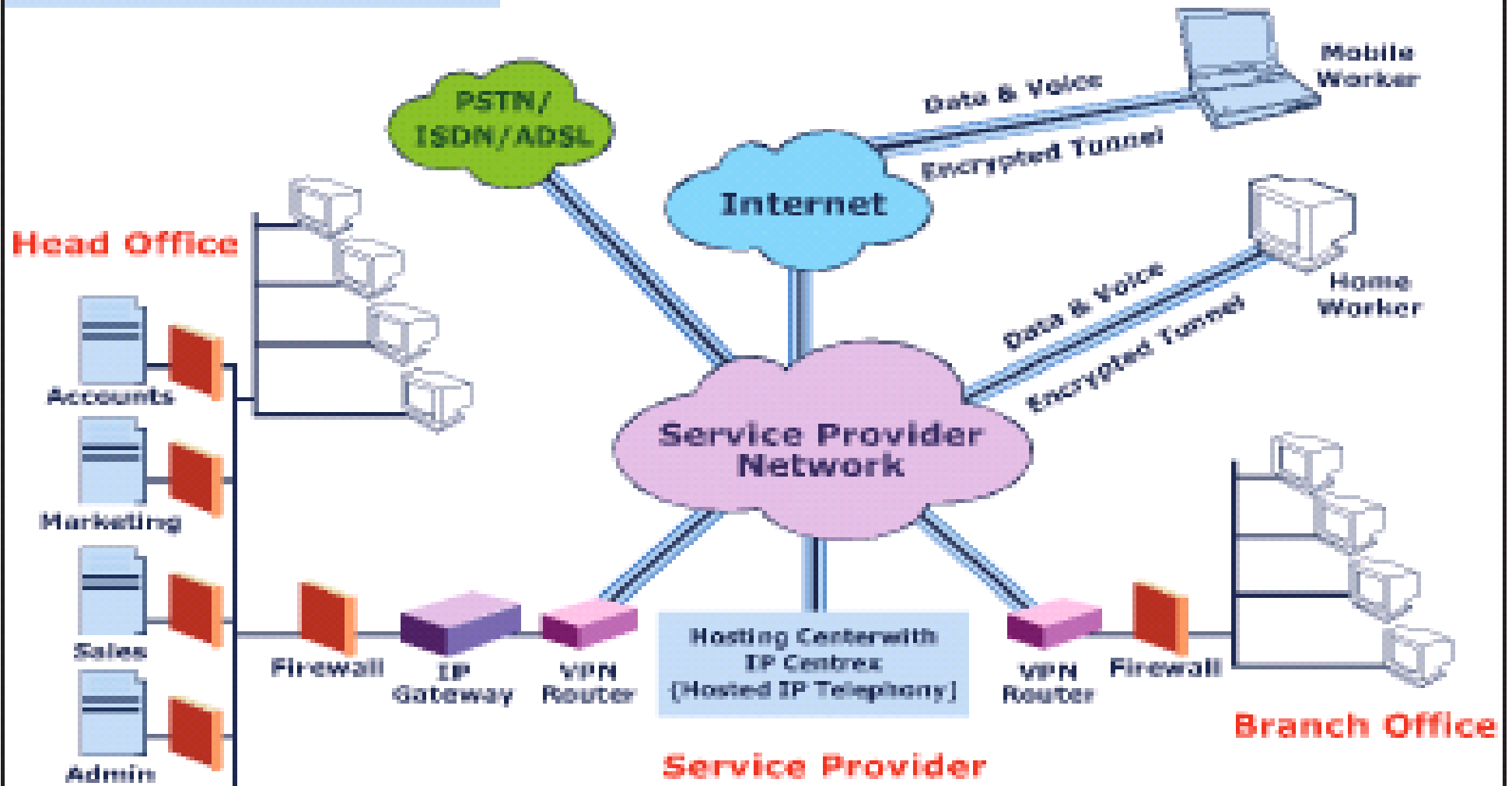
-  Global 'IP-CENTREX'
-  Builds on existing Internet infrastructure
-  Uses commodity hardware
-  Cash on the recent open-source innovations

What the ITSP Does







-  Acts as a central one-stop VOIP exchange
-  Integrates with PSTN and TDM Networks
-  End to end IP calls
-  Offer hosted/managed IP-PBX solutions
-  Provisions for VAS such as Intl. DID
-  Provides a Registry and Lookup service

Converged Services with the ITSP

IP Centrex







The ITSP lets consumers..

-  Use their existing IP connectivity
-  Get cheapest outbound rates
-  No costly Telecom termination hardware
-  Hosted IP-PBX services at the ITSP
-  Consolidate Data and Voice services
-  Expand seamlessly by adding bandwidth





Broadband Trends

- VoIP applications need only IP connectivity
- 30-40kbps per channel is more than enough
- Fast penetration of ADSL/xDSL services
- Private ISP's and Carriers laying fibre
- WiMAX: Affordable point to multi-point data connectivity.





How Broadband Helps

-  Reliable high-speed connectivity
-  Escape from infrastructure monopolies
-  Escape from regulatory issues
-  Lower acquisition and operational costs

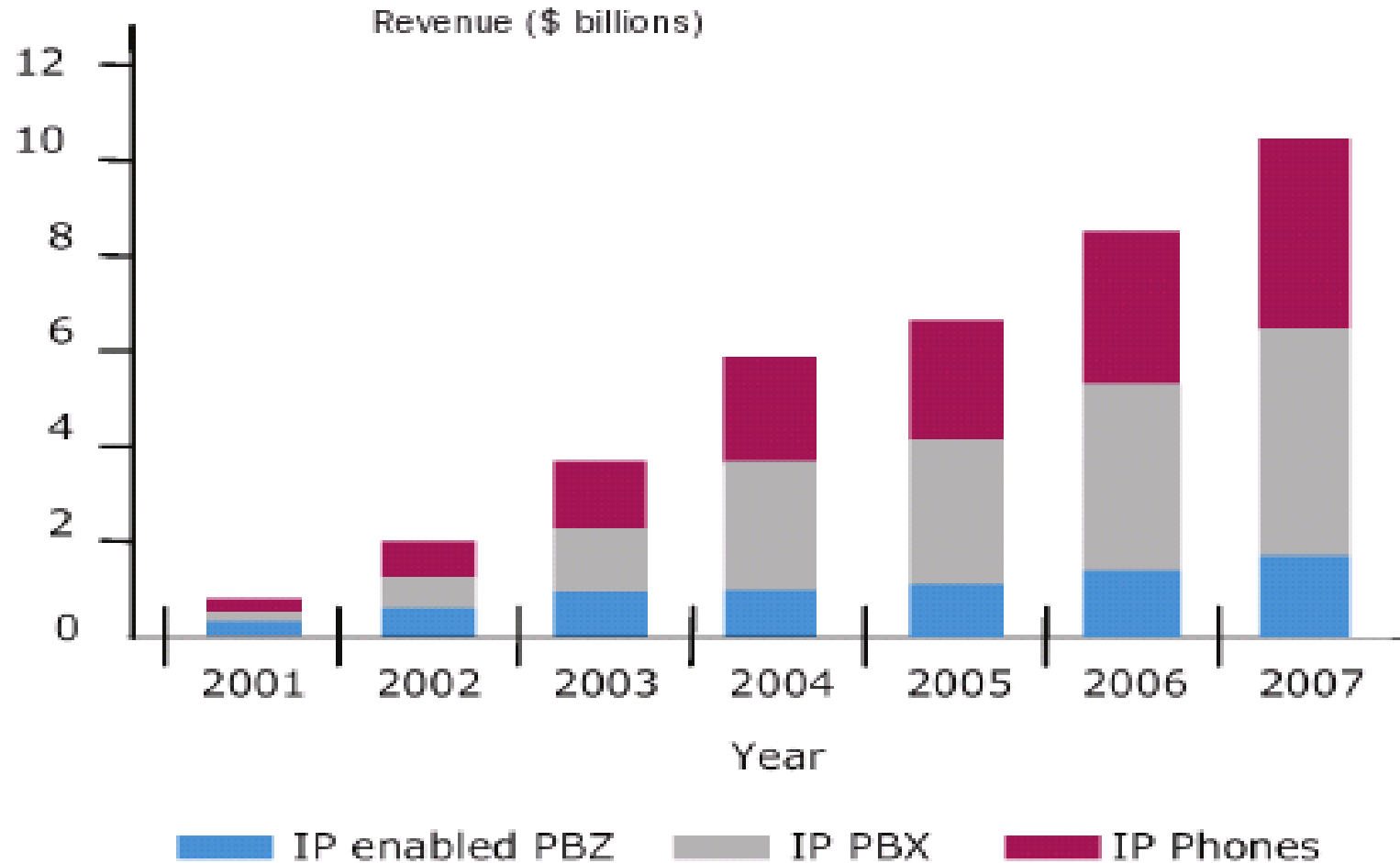
Benefits to the Telco

-  Run on commodity servers and network hardware
-  Can be compact and space-efficient
-  They scale non-linearly
-  They use bandwidth far more efficiently

ITSP for the Analog Telco

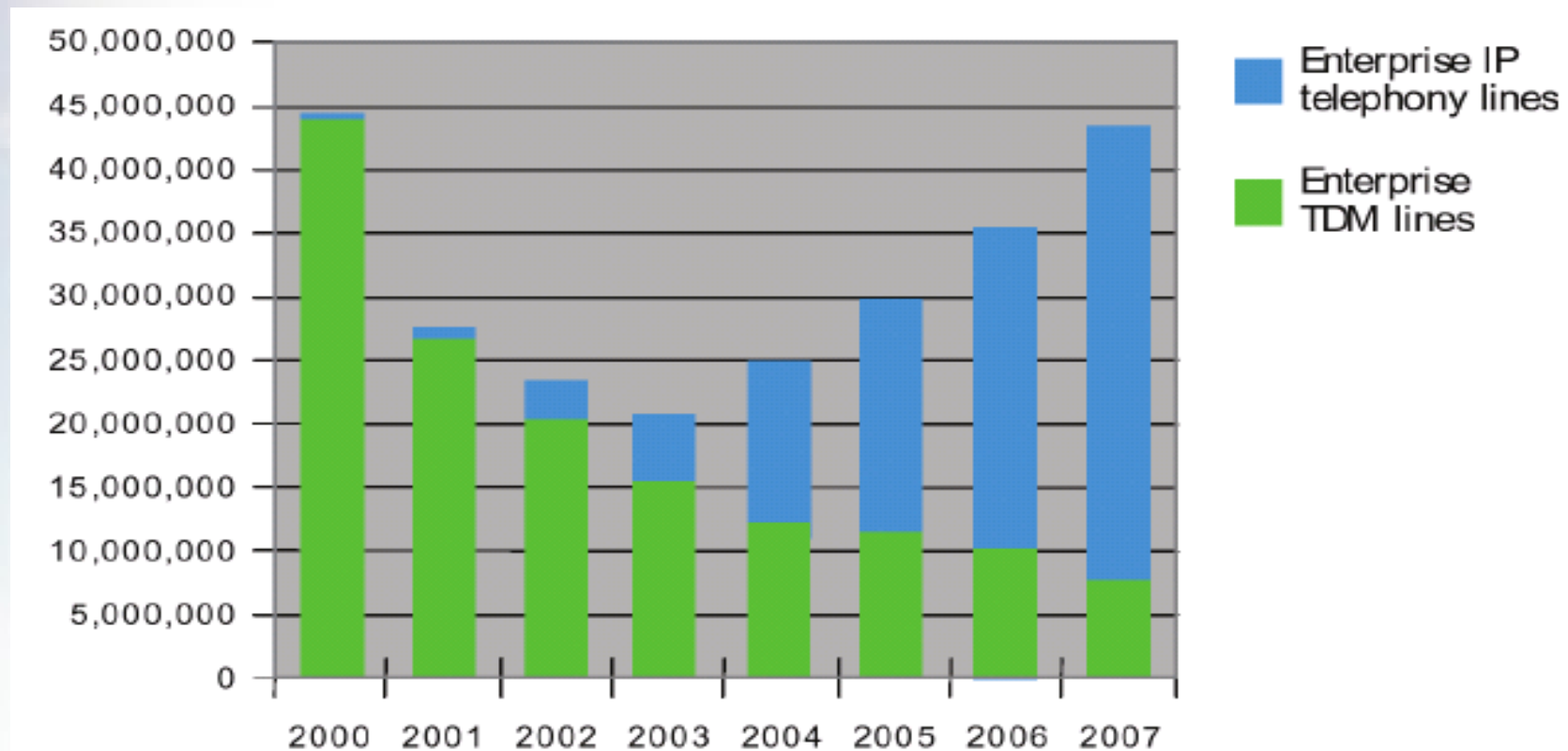
-  Telcos already have the required infrastructure
-  Many Telcos also have their own ISPs
-  Go OpenSource!
-  Links to other telcos

IP enabled hardware on the Rise



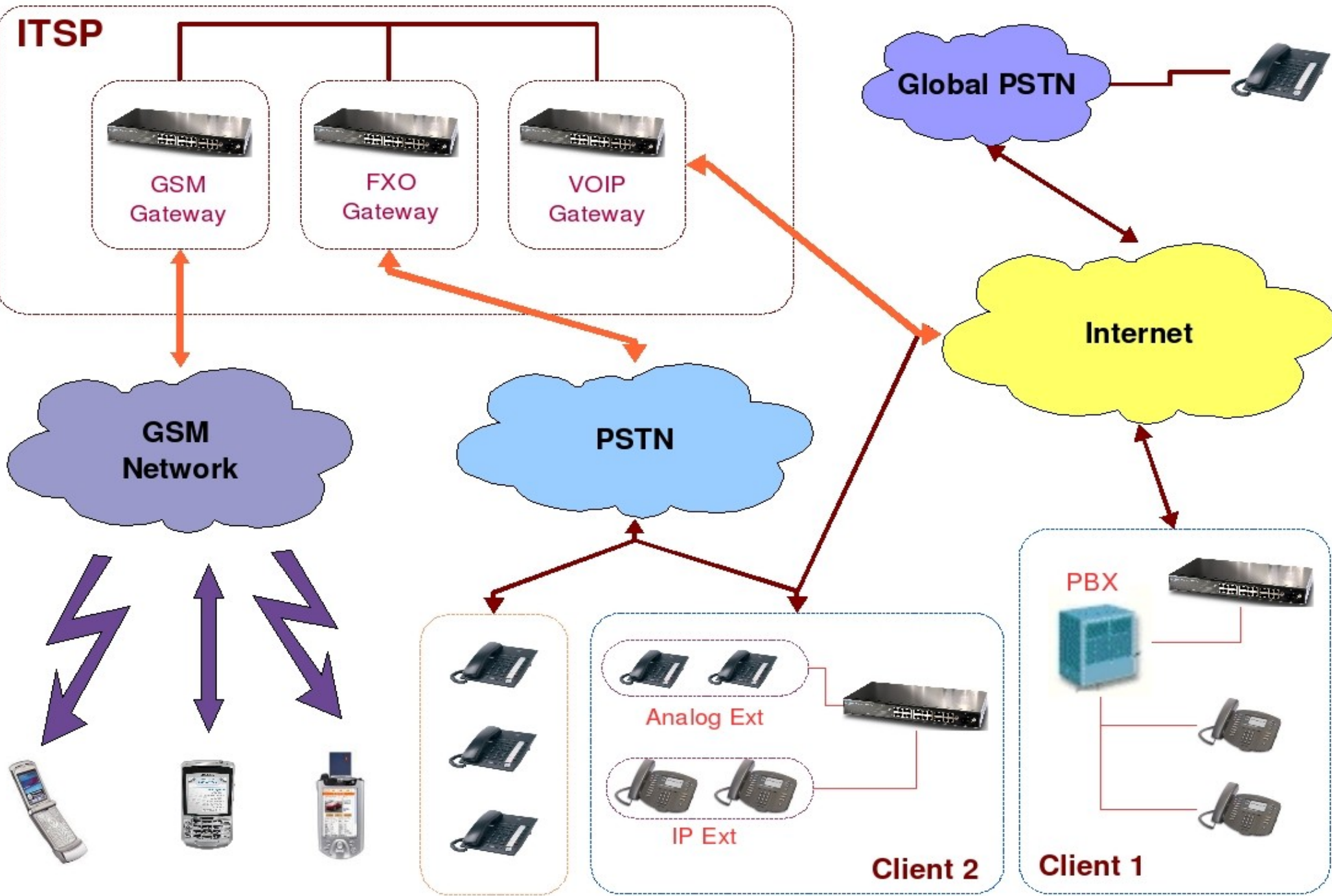
Source: Frost & Sullivan

Enterprise IP Telephony Market on the Rise








"The worldwide Enterprise Packet Voice Market is forecasted to grow 49percent in 2003 to \$2.03 billion. Synergy Research is forecasting this market to grow to \$6.03 billion by 2007, representing a CAGR of 31.2 percent." - Synergy Research, November 2003

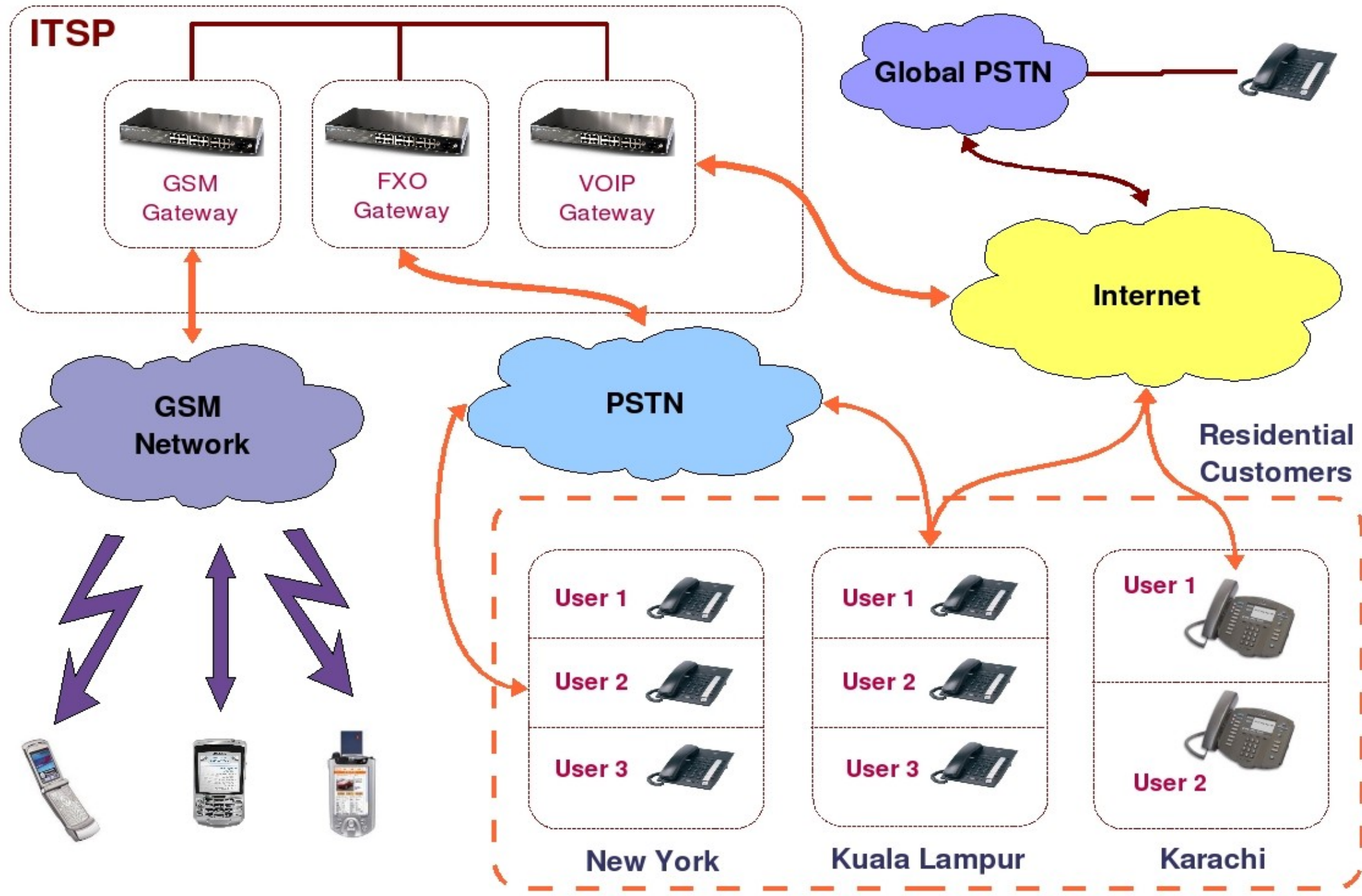
Case: ITSP in the Commercial Sector



Benefits to the Commercial Sector

-  Expansion
-  Redundancy!
-  National and international DIDs
-  Interconnection via the Internet
-  Extension Roaming and Office Relocation

ITSP in the Residential Sector



Benefits to the Residential Sector



Easy Relocation

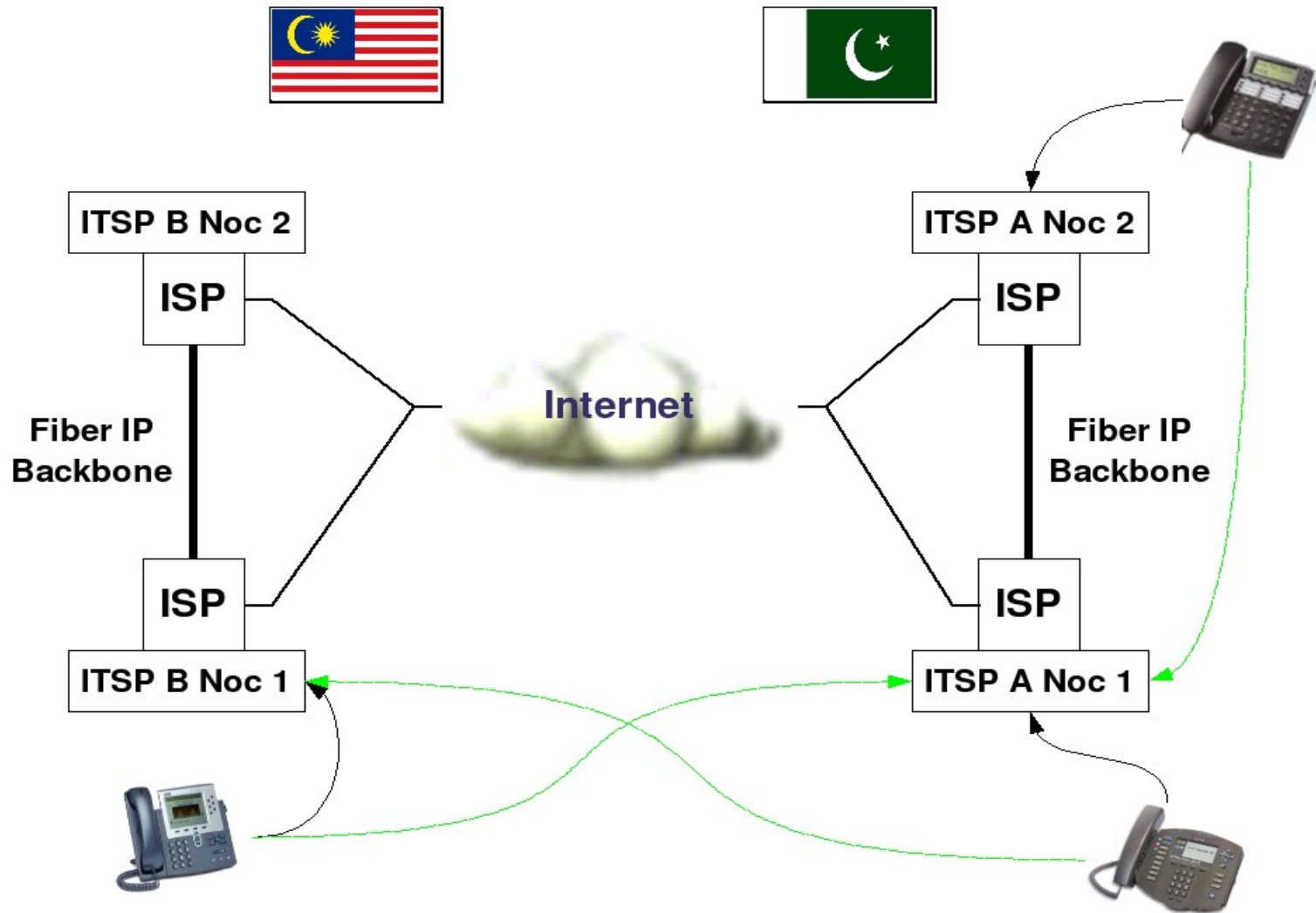


Free of charge transfers possible






Home office!

End to End IPT through ITSPs



Importance of End-to-End IPT

-  Internet reduces the cost of communication
-  Skip interconnect fees
-  Peer to peer calling

What's stopping the ITSP?



Legislation









High cost of broadband



Monopolistic barriers to entry





The Business Model

-  Per minute or flat rate charging
-  DIDs
-  Telephony DR services
-  Hardware and CPE sales
-  Charging for VAS
-  Calling Cards





Vonage: A real ITSP

- 192% increase in revenues from Q105 (\$41 Million) to \$192M in Q106
- 25% subscriber growth last Quarter!
- Is challenging giants
- New Free calls to Europe!
- Unlimited international calls for \$25
- Tough competition to PSTN





MyNetPhone

-  Australian based ITSP
-  30 – 50% cheaper than local PSTN Telco
-  Free local and national calls with same network
-  Extremely reduced international rates

The Future – VoIP for everyone

-  VOIP- enabled mid-range cell phones
-  Extension in any IP based wireless environment
-  Home to Office 'Roaming'
-  Calls from cellular and PABX network

Conclusion

-  VOIP on a global scale
-  Complete VOIP based telcos are a reality
-  IPT Revolution
-  VoIP for the masses!

Thank You