



Emerging VoIP Markets:

Residential BB, Enterprise, and Service Providers

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In Perspective



Voice Migration to NGN

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**Opex Reduction
PSTN Replacement**

**Market + Innovation
Driven**

POTS/ISDN Services

Obsolescence Issues

C4/C5 Replacement

BB Access

IP Business Voice

Voice over Broadband

Short term

- PSTN in sustain mode
- High revenue Customers move to IP services

Mid term

- Optimize PSTN
- Move PSTN traffic over IP
- CAPEX intense replacement

**Carrier IP
Multi-Service Core**

Carrier Focus now

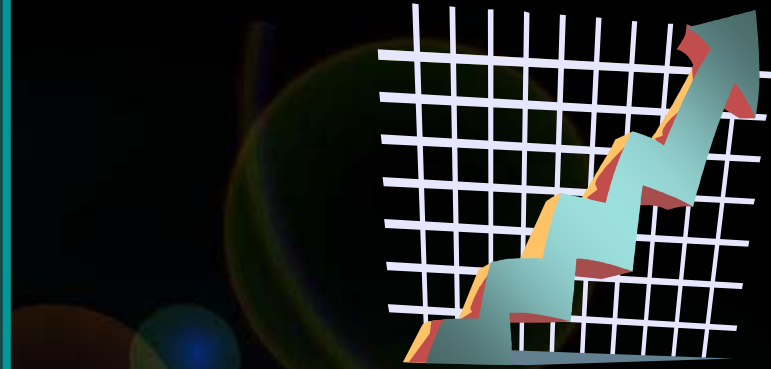
- NGN = Service Innovation
- Support explosive growth of Enterprise IPT
- Grow broadband revenues
- Pay as you grow CAPEX
- Leverage IP Core
- Interconnect with PSTN
- Mobility

Cisco Focus is on Growth Areas

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IP Business Voice Services

- Major NGN enterprise business area
- Meets strong market demand for voice/data integration
- Opens new markets for incumbents
- Cisco driving demand from end customers



Voice over Broadband

- Drive ARPU for SPs
- Metro Ethernet, the next Generation Access
- Voice is essential building block of Broadband Triple Play Bundle
- Video applications for residential market

PSTN Transformation

- Reduce OPEX, Address Obsolescence
- Voice aware IP Core
- Leading Media Gateway & SS7 Gateway Portfolio
- Strong Partnerships

Cisco has all the Building Blocks for the Innovation Driven NGN

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Softswitch,
SS7 Gateway



BTS 10200
PGW2200

SIP Service
Platforms



Dynamicsoft
platforms

Enterprise
IP PBX/KTS



CallManager
CallManager-
Express

Home
Gateway



Linksys

IP Phone



79xx Series

High Density
Media Gateway



AS5000
MGX 8000

Enterprise
Multi-Services
Router



Cisco 26xx,
28xx, 37xx,
38xx Series

VoIP
Interconnect



Session Border
Controller

Service
Control
Platform



SCE1010
SCE2020

IP Core &
Edge



Cisco 72xx,
75xx, 76xx,
10000, 12000,
CRS-1

Cisco is the VoIP Market Share Leader

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- Cisco is #1 in WW Enterprise and SP Packet Voice, LAN Telephony and IP phones
- Shipped for Revenue to date:
 - 2.0 million + Cisco IP phones
 - 1.6 million Unity seats
 - 0.5 million Contact Center agents
 - 13 million VoIP gateway ports
- 10,000+ worldwide IPC (Call Center) customers to date



Key Drivers for Consumer VoIP Roll Out

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Improve Top Line

- Fuel Broadband growth
- Commodization Trap
- Leverage Consumer Budget

New Revenue

- Increase Winline ARPU
- New High value consumer communication services
- Tap into Entertainment Budget

Competitive Concerns

- Mobile Substitution
- Loss of access lines
- Fixed Telephony is uncool

Competitive Advantages

- Winback from Mobile (FMC)
- Bundling reduces Churn
- Innovative Offense

Improve Bottom Line

- Price pressure
- OPEX getting out of control
- Minimize Voice Capex

Cost Savings

- Produce voice at lower cost
- Network Convergence to IP
- Cost Reduction for Interconnect

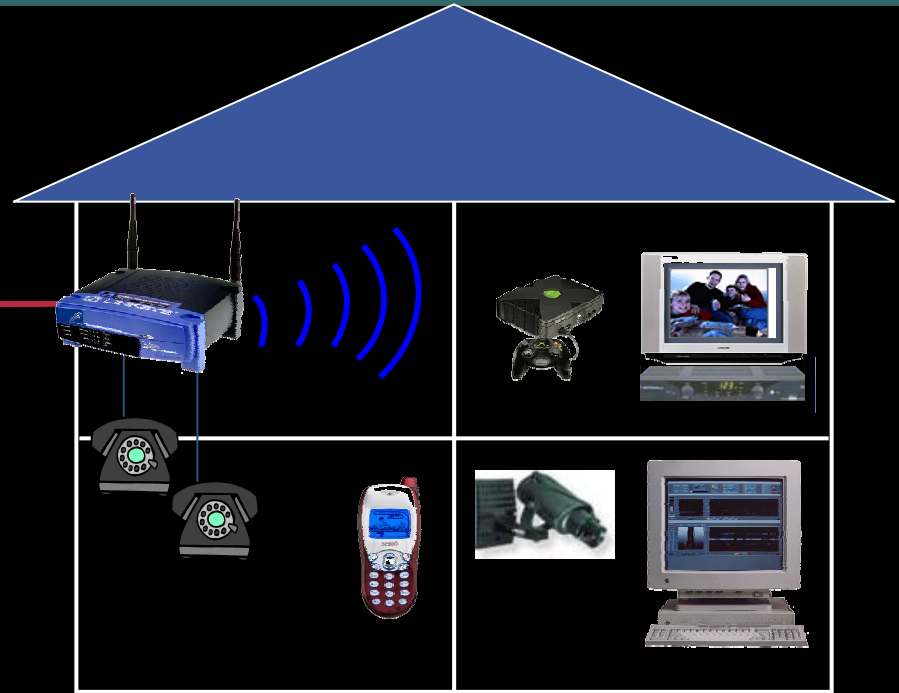
Residential Services

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BTS Softswitch



Broadband Access Network



- Data / Internet
- VPN
- Voice (VoIP)

POTS, PC softphone, Cordless VoIP Phones

- Gaming
- Video / xVoD / Music
- Telemetry / Security



Summary

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- **Broadband access growth** is the key growth engine for fixed line operators
- Service providers need to leverage the **cost benefits of VoIP** in order to remain competitive
- Bundling VoIP with Broadband **reduces Churn and increases revenues**
- Bundling **VoIP over broadband** is inevitable and **will radically change SP business models**
- **VoBB** will bring a new communication experience to consumers (Broadband Convenience)
- **Broadband** and **VoIP** are the driver of NGN migration
- **Regulation** remains an uncertainty

Q & A



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