Tendencias en Redes Convergentes de Siguiente Generacion

PRIMAVERA 2006
cudi
abril del 3 al 5

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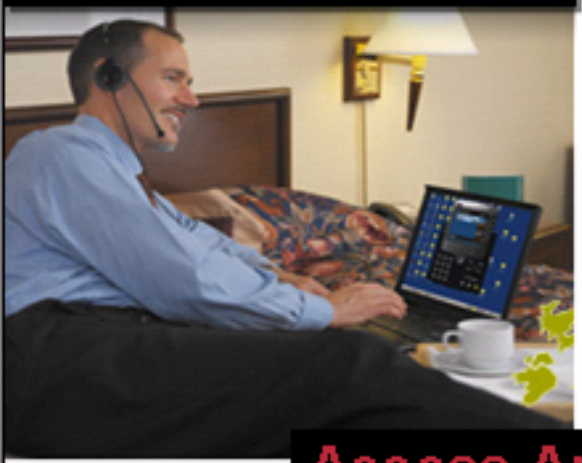
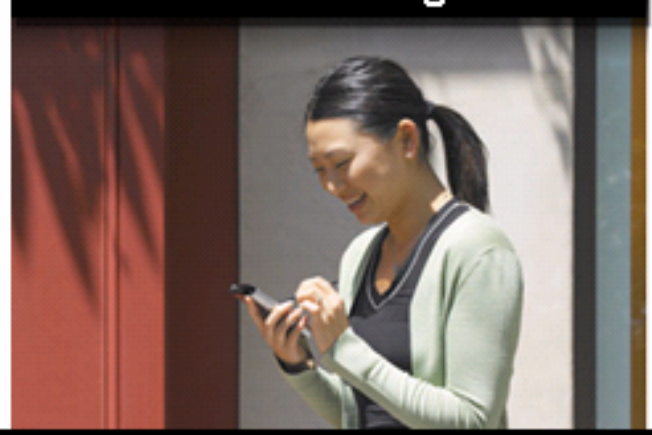
Market Drivers in Mobile

New Business Models Voice/Video/Data



Demand For Mobility Service Convergence



Mobile Operators in the Connected Home & Enterprise

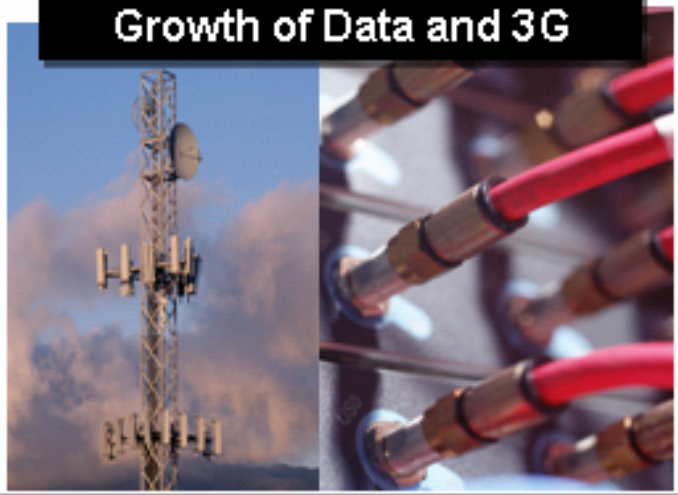
Access Anytime, Anywhere over Any Device

Changing Competition

YAHOO! skype Google Virgin BT vodafone

Forbes
Sprint Nextel to Join Forces with Cable Giants

Growth of Data and 3G

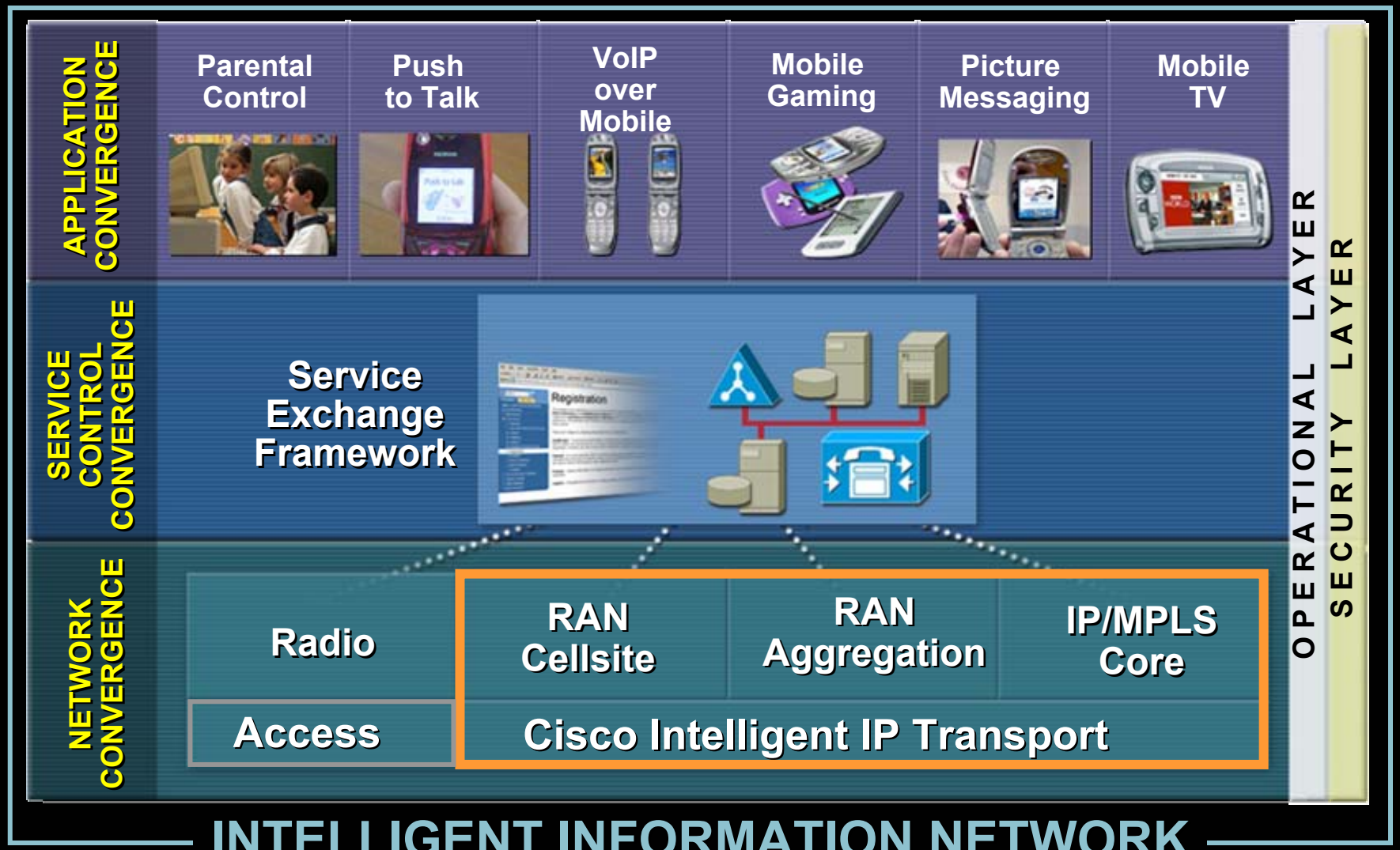


More Traffic, Lower Price

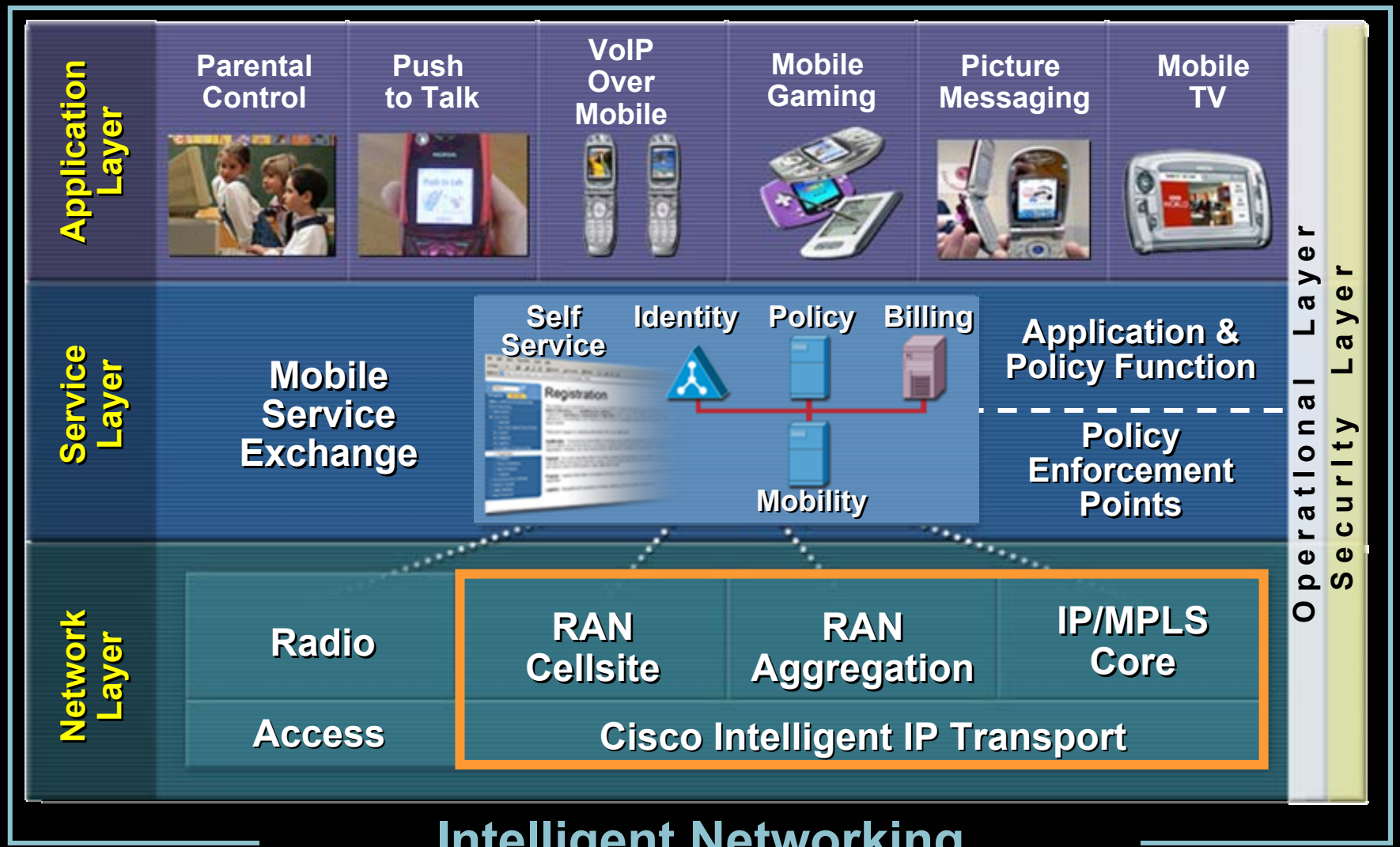
Cisco Mobility IP NGN Architecture

Intelligent Networking

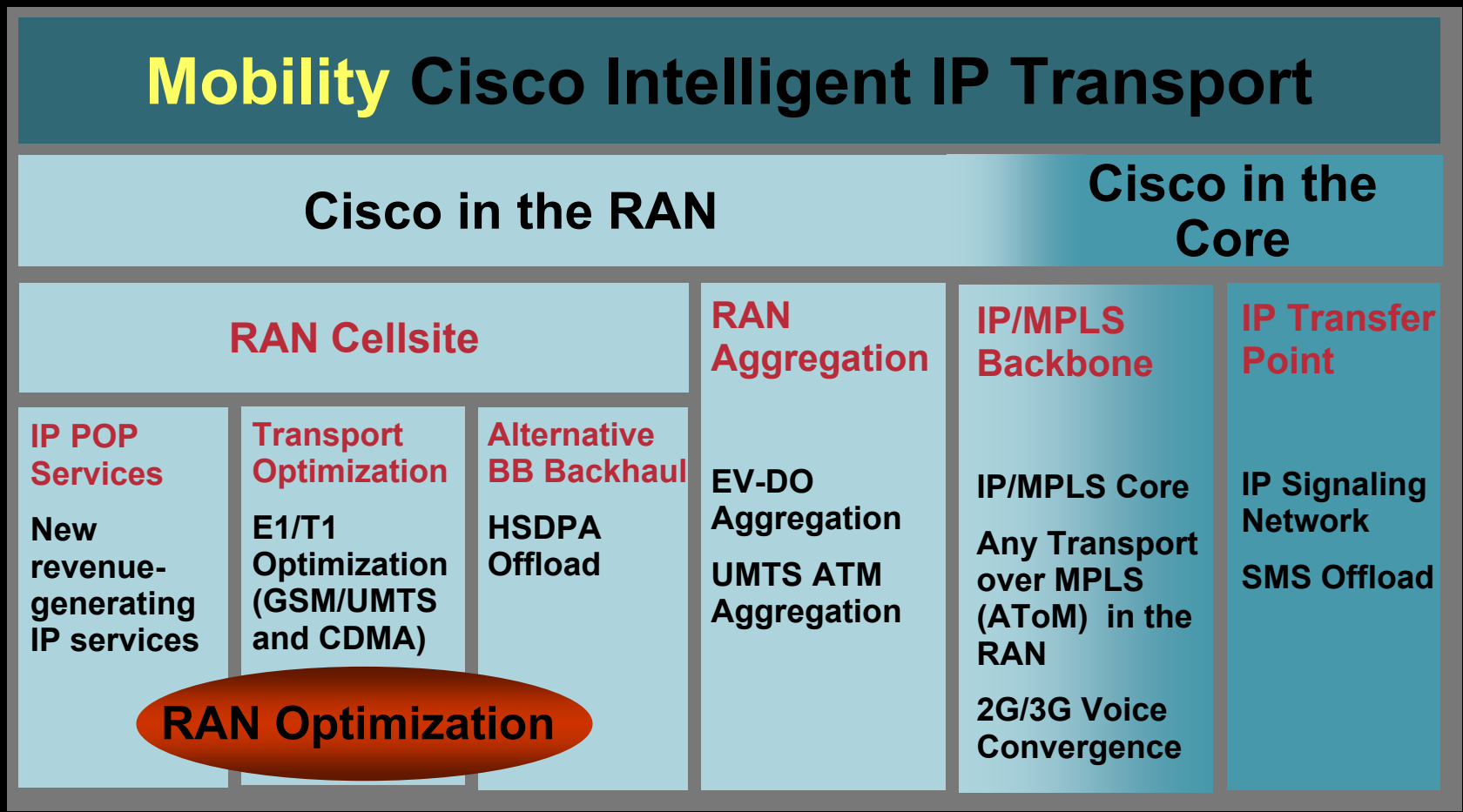
Mobility IP NGN Architecture



Mobility IP NGN Architecture

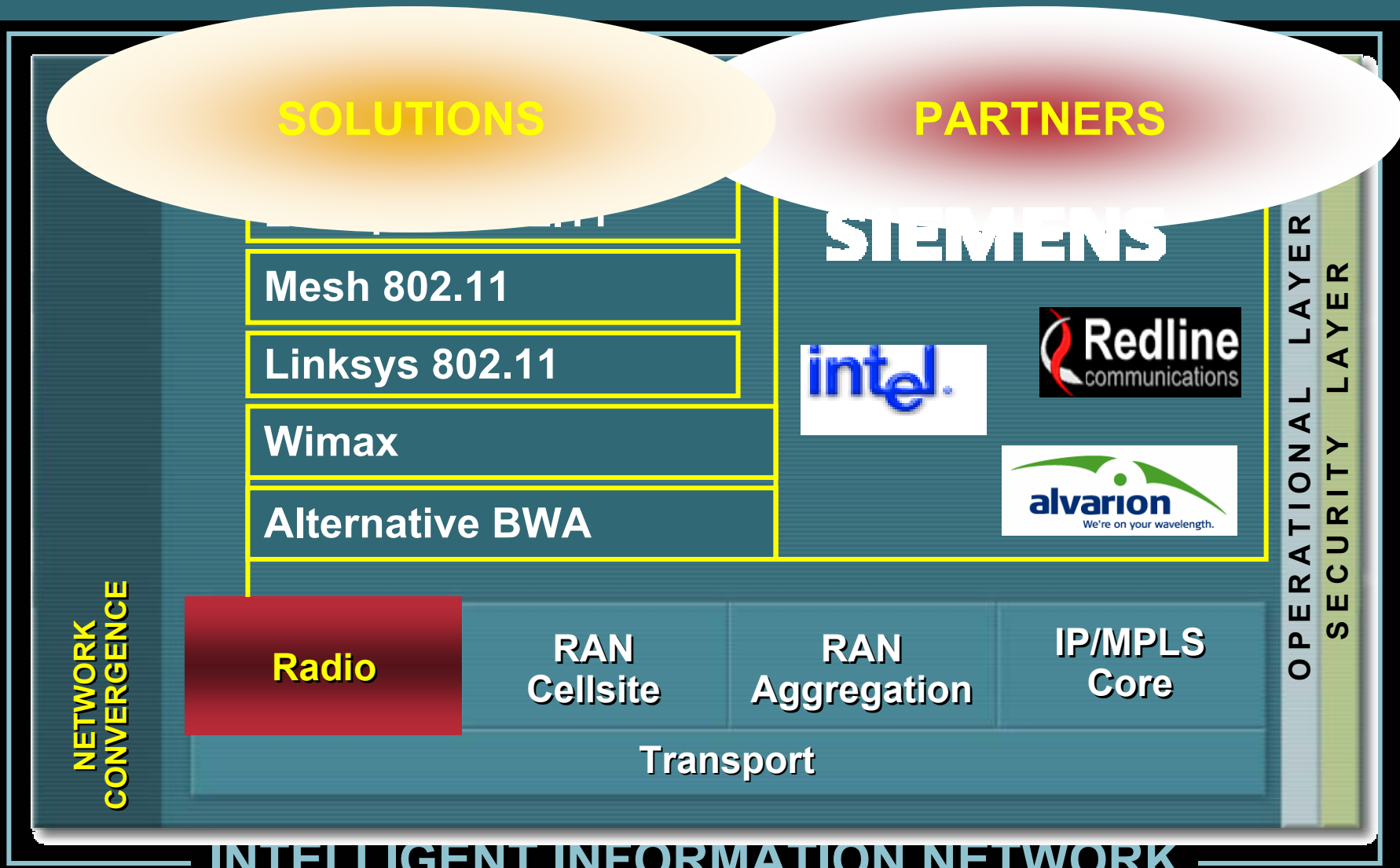


Intelligent IP Transport Solutions in Mobile Networks

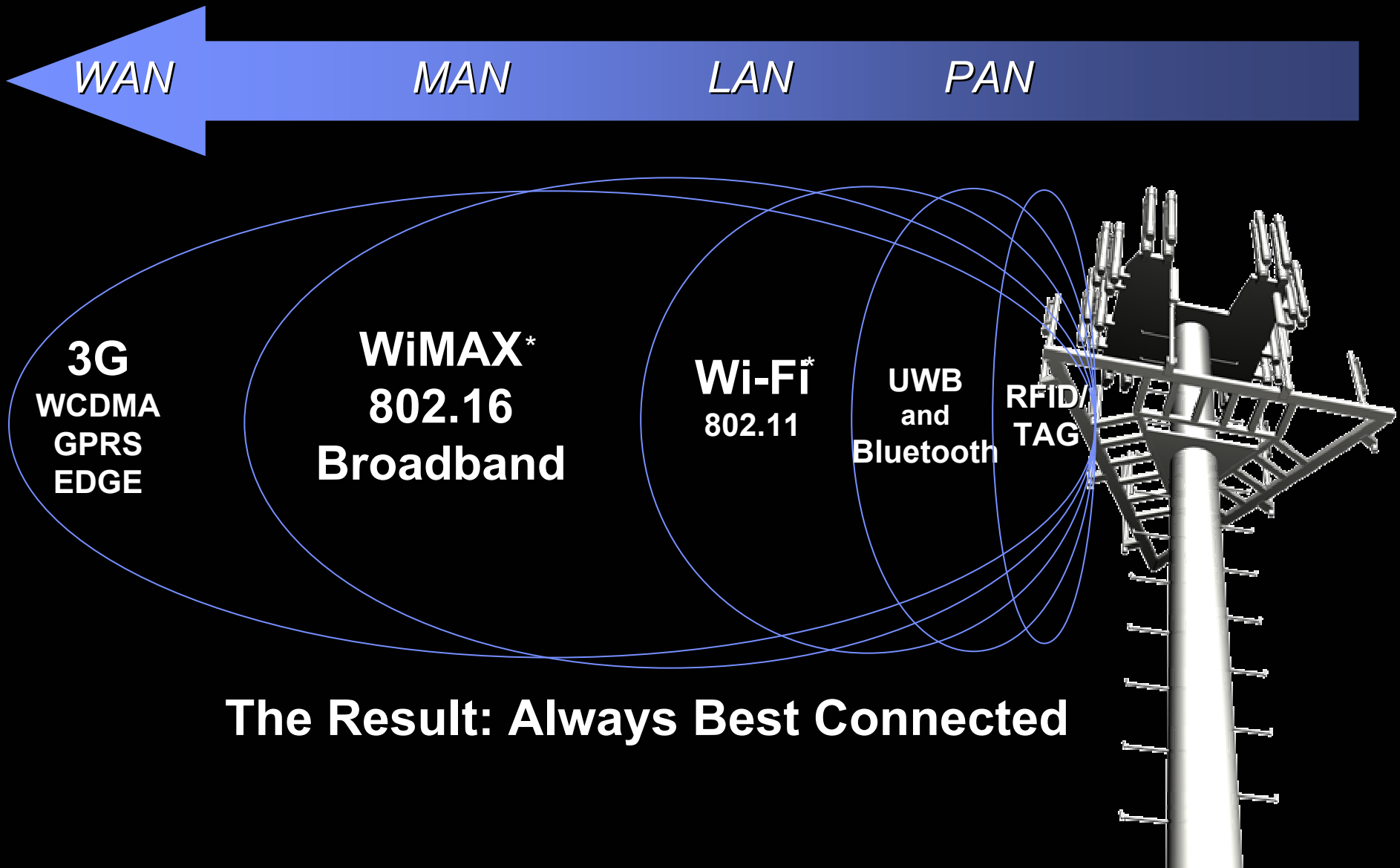


Mobility IP NGN Architecture

Radio Solutions



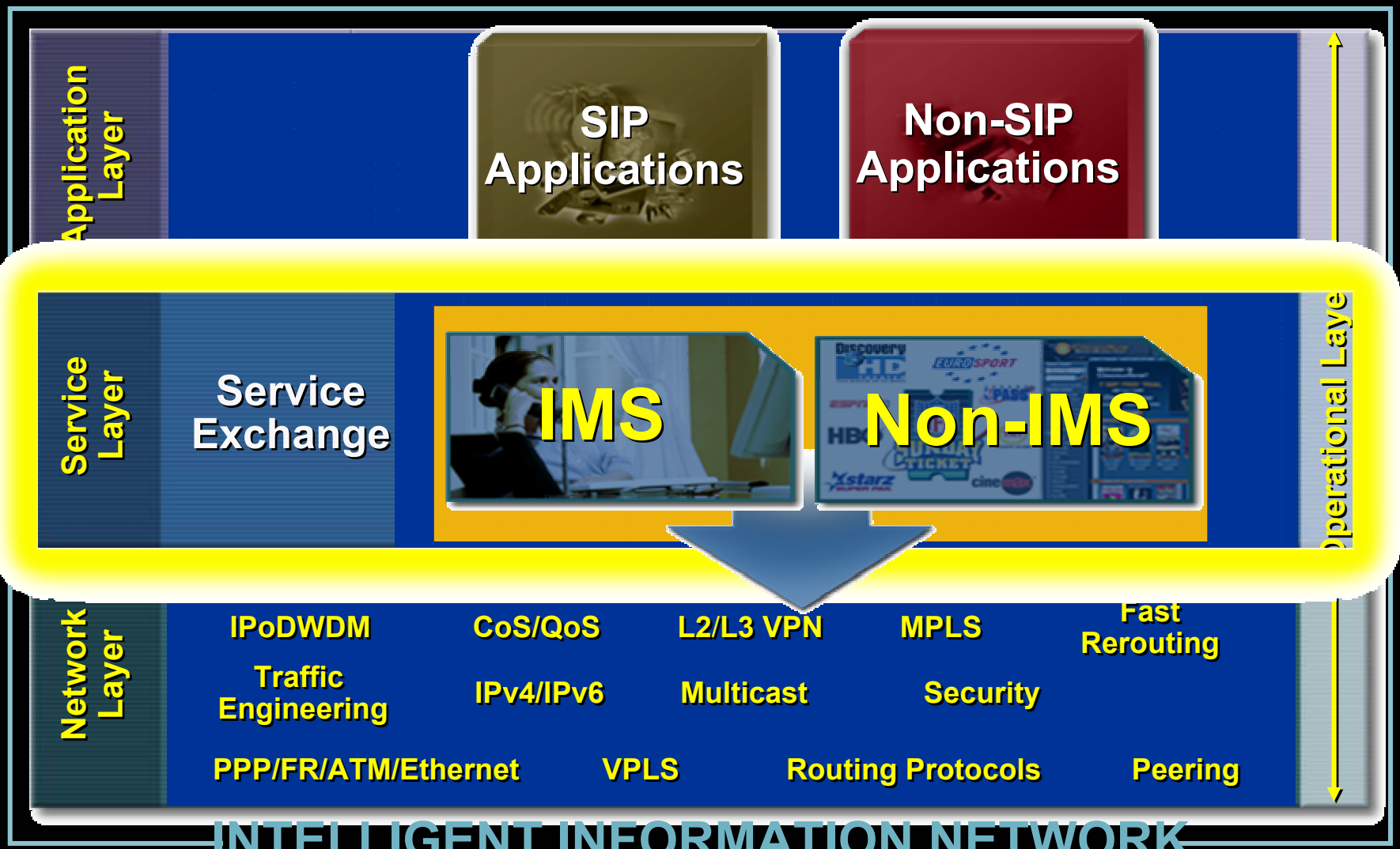
WIRELESS NETWORKS WILL CO-EXIST



The Result: Always Best Connected

Mobility IP NGN Architecture

Service Exchange Framework
Comprehensive Support for BOTH IMS and Non-IMS



Service Exchange
For Both Businesses and Consumers

IMS Applications

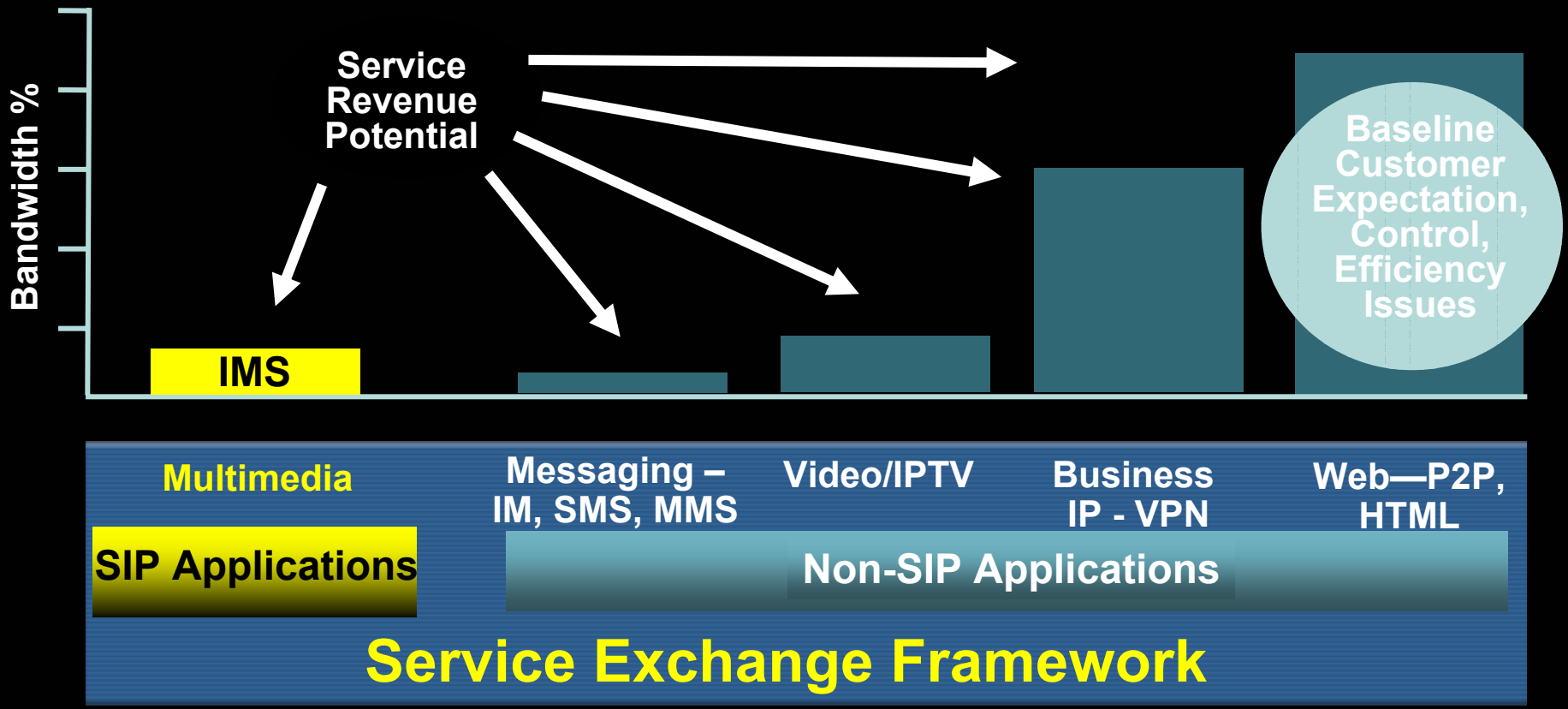
- Push to Talk
- Buddy List
- Click to Dial
- Location based Info services
- Presence-Based Video Conferencing
- Streaming Audio/Video
- Dual Mode Telephony

Non-IMS Applications

- IPTV
- P2P Services
- Video on Demand
- Gaming
- Email
- VoIP
- Internet
- Managed Security
- SMS/MMS
- Skype
- Videoconferencing

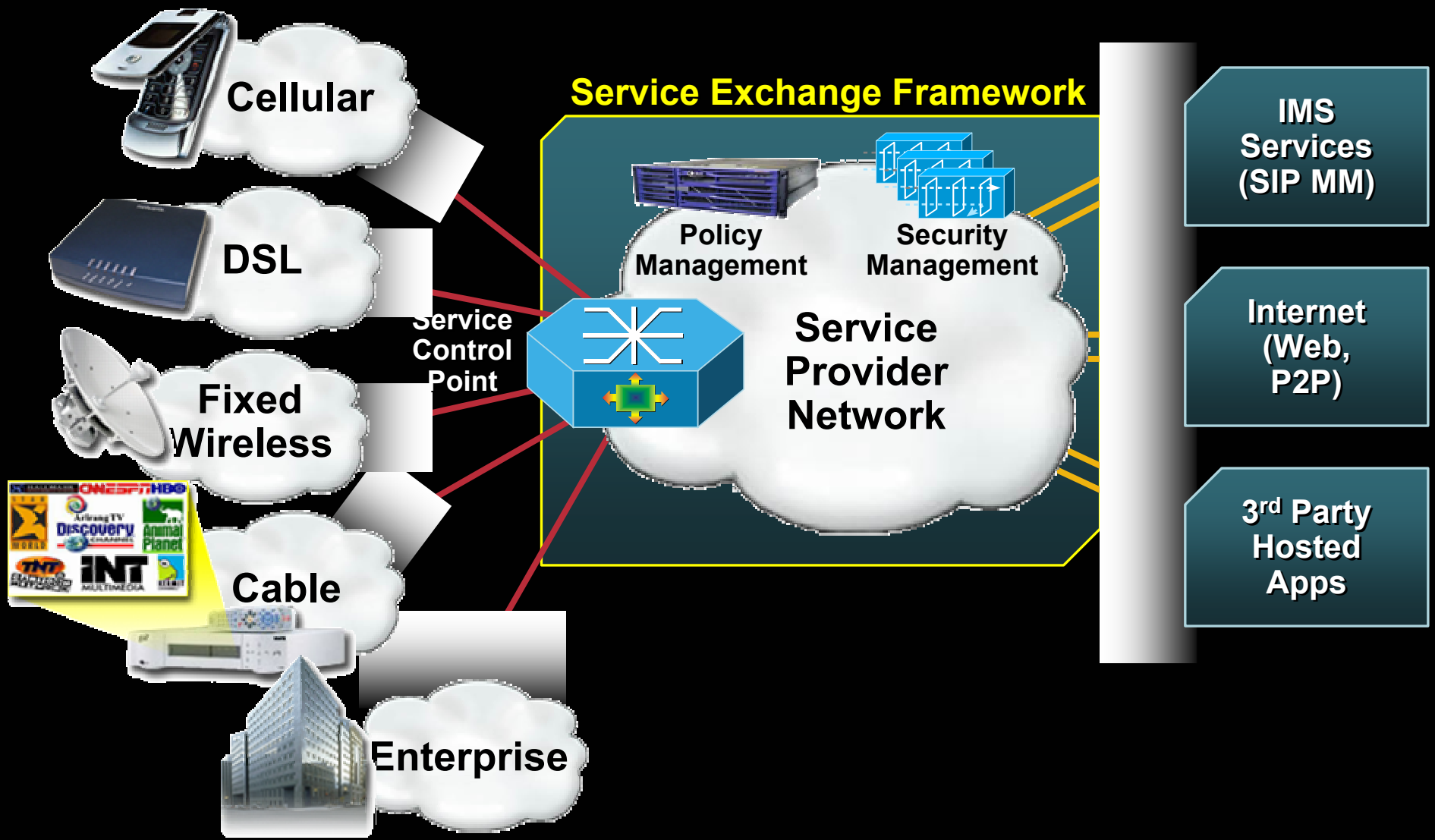
Realistic Traffic Mix

Extending Control Beyond SIP Applications



*Cisco Estimate

Service Exchange Framework
Bringing Together Applications & Accesses



Service Exchange Framework

Content Aware Charging

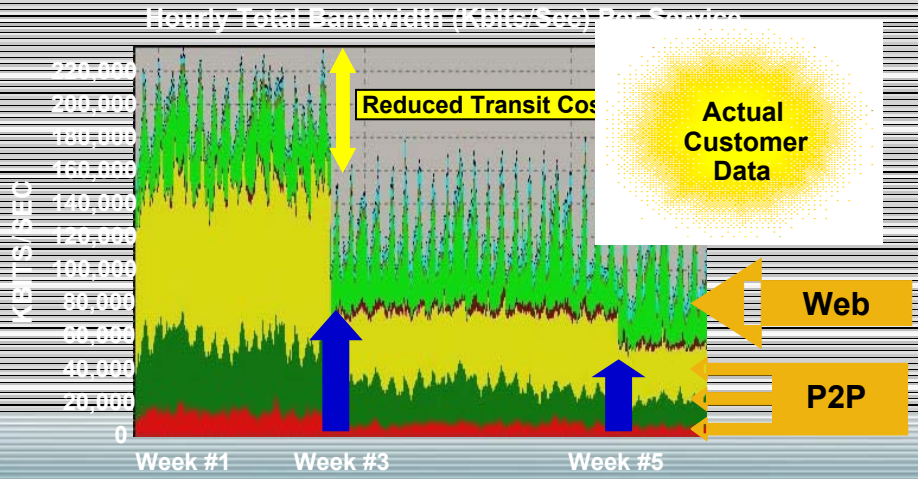
- Realising the True Value of the Network (WAP, i-Mode, MMS)
- Business, Consumer, Post-Pay, Pre-pay
- Value based charging

Content Filtering

- Subscriber-managed parental control
- Basic web site blacklisting provided free of charge
- Comprehensive filtering and security for a small monthly subscription

Cisco Service Exchange Framework

Service Prioritization via Deep Packet Inspection



Managing P2P Applications

- Enable new business models between content and service providers

  Detect and manage affiliated applications and align QoS

  Co-branding and fee sharing

Efficient Management of Video Oversubscription

Video Call Admission Control

- Preserves quality of experience
- Provides network-based graceful busy signal when demand exceeds capacity
- Service delivery guarantee, critical for IPTV

Cisco Service Exchange Framework

Implement Fair Use Policy

- Eliminates bandwidth bottlenecks
- Enhanced user experience

Usage	less than 2.8 GB	less then 4.2 GB	less then 5.6 GB	over 5.6 GB
e-mail + WWW	No Limit	No Limit	256 kbps	256 kbps
audio /video streaming	No Limit	128 kbps	65 kbps	48 kbps
P2P	48 kbps	28 kbps	28 kbps	16 kbps

User quota based on 7-day timeframe

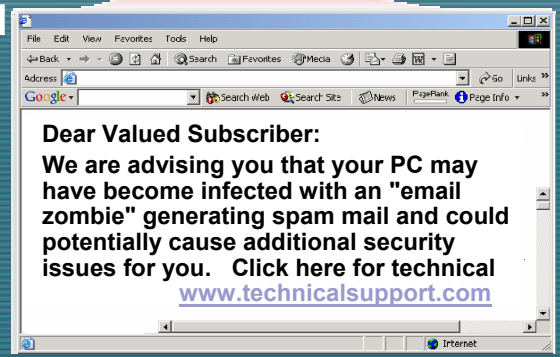
Enhanced Security- Outbound Protection

Anomaly detection & signature matching

Identify: Threat and alert SP operations

Protect: Block / mitigate threat

Notify: Quarantine subscriber and notify of security risk

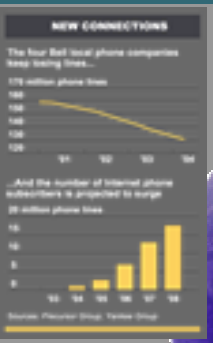


IMS Approach

- IMS strategy is focused on applications and convergence
  - Carriers want differentiated applications to deploy on their next generation network (PTT, Dual Mode, Video, etc)
  - Applications that work seamlessly across disparate access networks (CDMA, WiFi)
- Cisco is building the 3GPP IMS features into its products in a phased manner
  - Standards based interfaces (ISC, Cx, etc) are a key priority
  - Application needs are driving other feature requirements

Service Provider Dynamics

Different Reasons to Rush into Convergence



Fixed

- Losing to mobile and Vonage, Skype
- Broadband is their greatest asset
- Can best leverage this asset with FMC

Cable

- Expanding into Telco services
- Partnering with Mobile operators Sprint/Cable, Virgin NTL

Fixed Mobile Convergence

Over the Top

- Gaining Momentum in fixed
- New Eldorado is the profitable mobile space

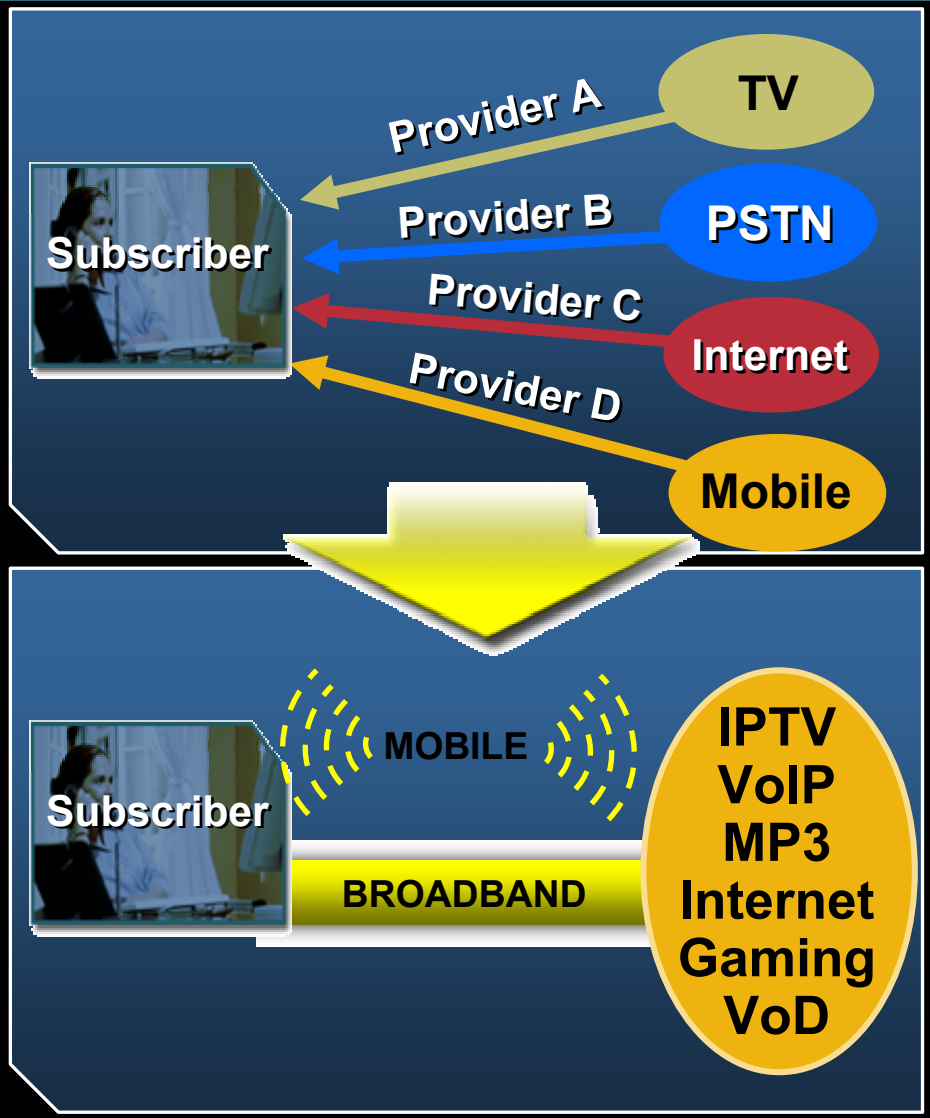
Mobile

- Mobile service near saturation in many geographies
- Pressure on ARPU looking to new services
- Substitution is the game

Why Consumers Want Converged Voice
Skype, Coverage and the Connected Home

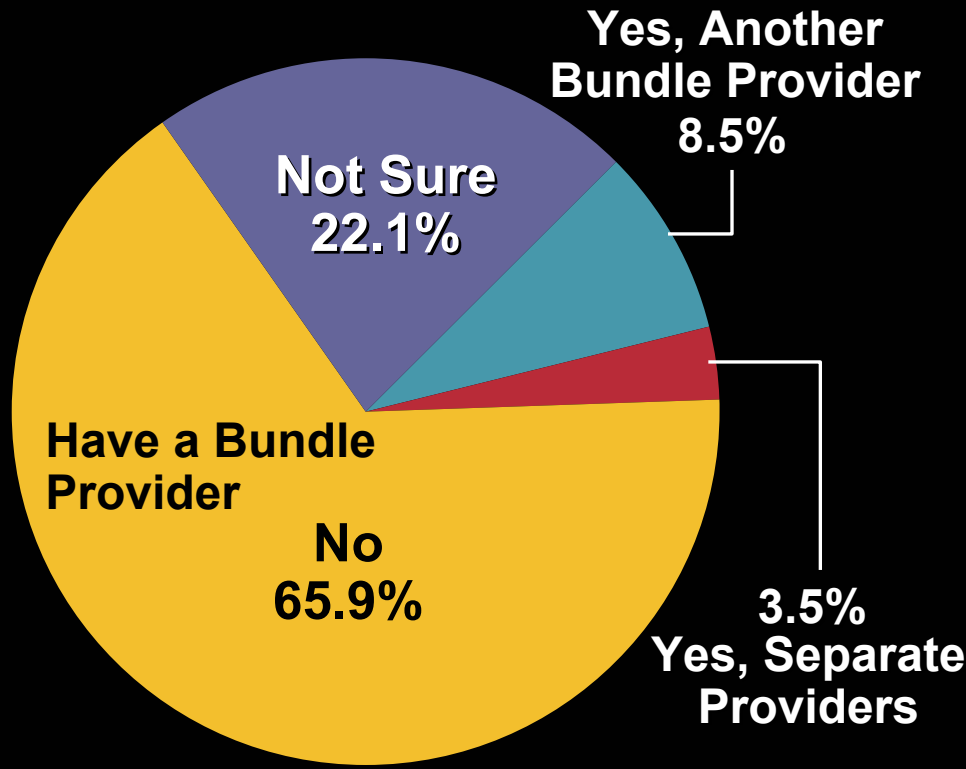
All-You-Can-Talk-From-Home Tariffs (HomeZone Plans)	The "Skype" Effect On Your Mobile
Better In-Home Coverage	The "Can You Hear Me" Effect
Strategic CPE Opportunity	Fewest Possible Boxes

Why SPs Want Converged Services
Bundling Brings Stickiness for Consumer



US Bundled Churn Rates

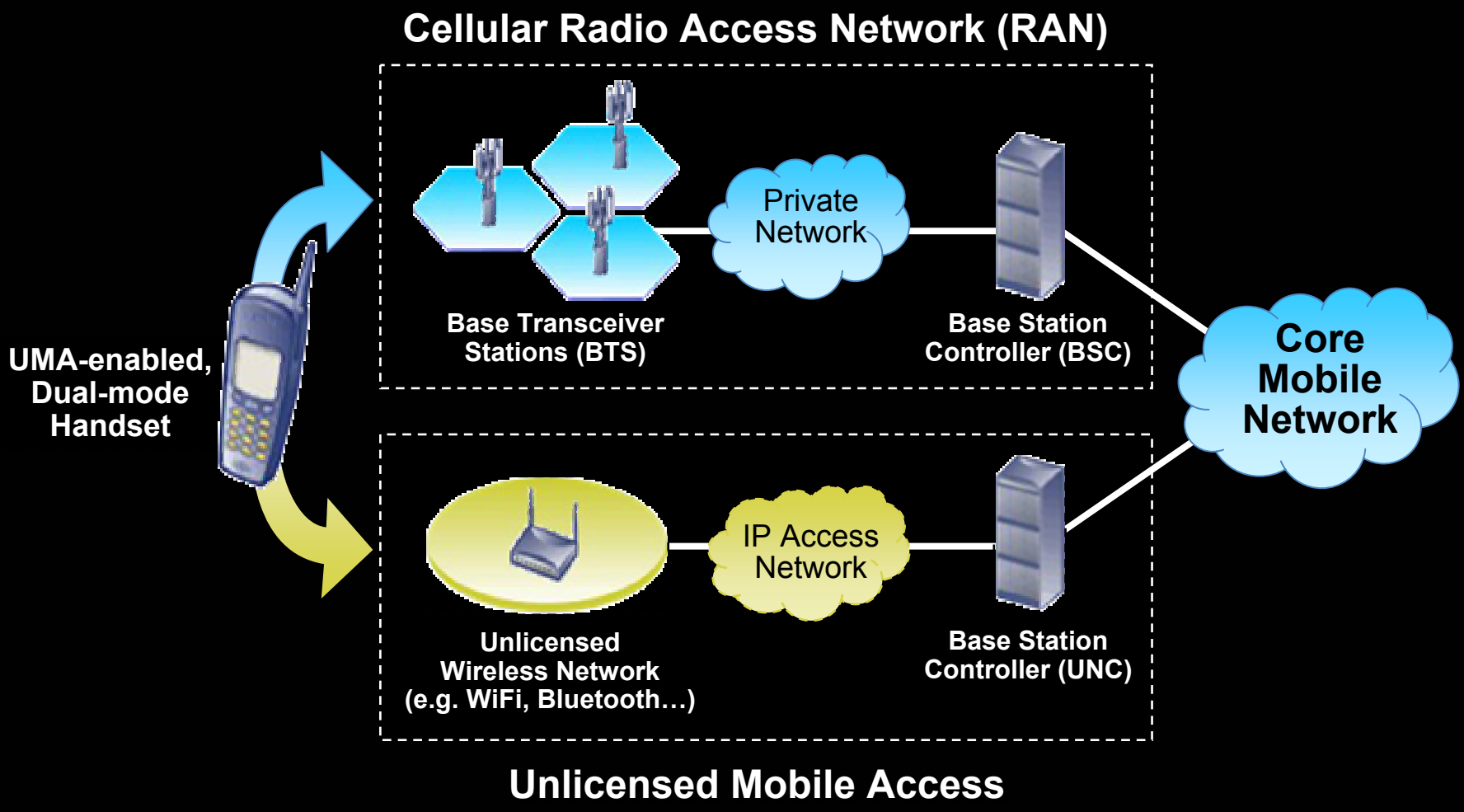
% Planning to Switch Bundle Providers in the Next 12 Months



Source: IDC Consumer Survey, 2005

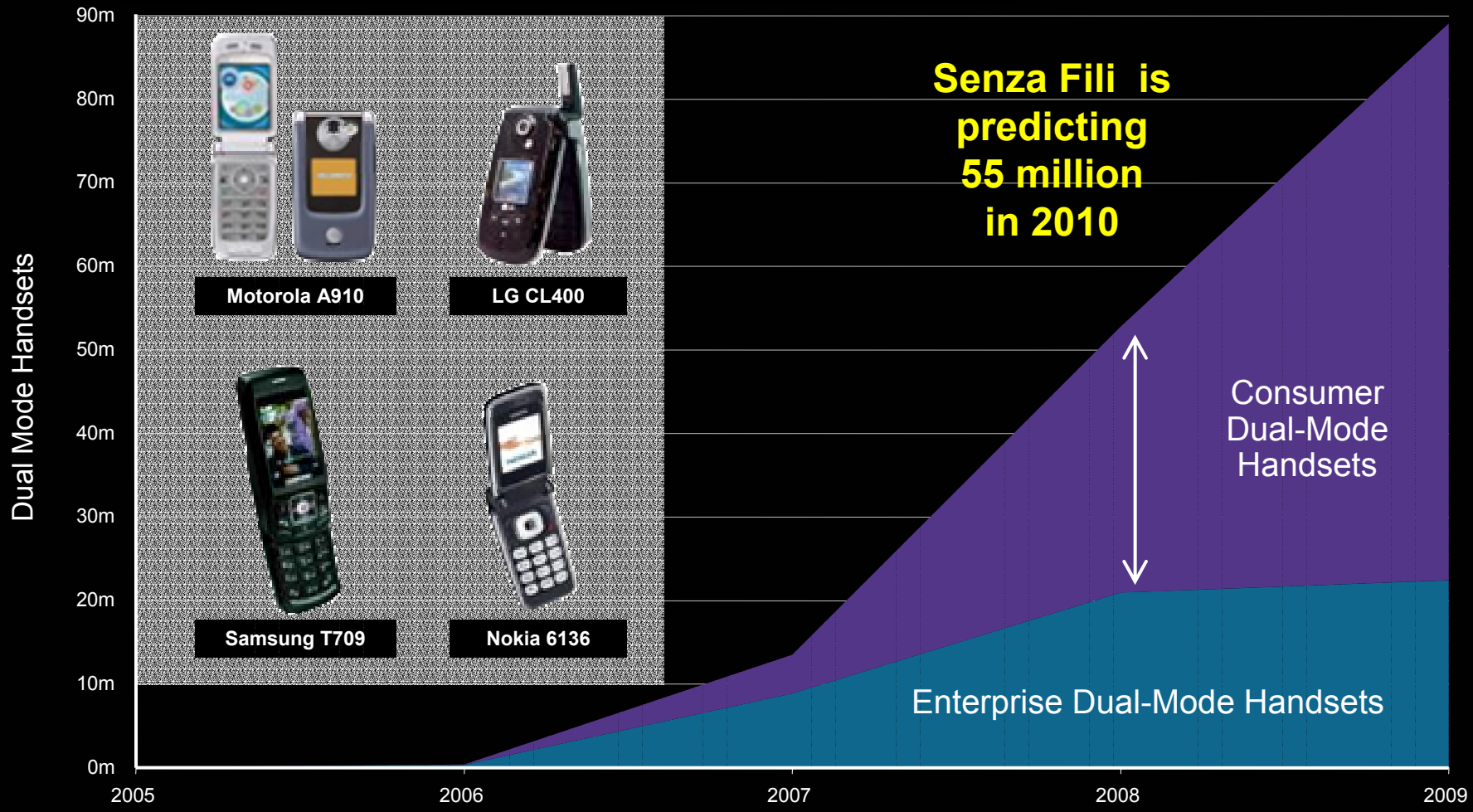
Answer to Converged Voice for Consumers = UMA

Answer for Converged Consumer Voice
UMA – Unlicensed Mobile Access

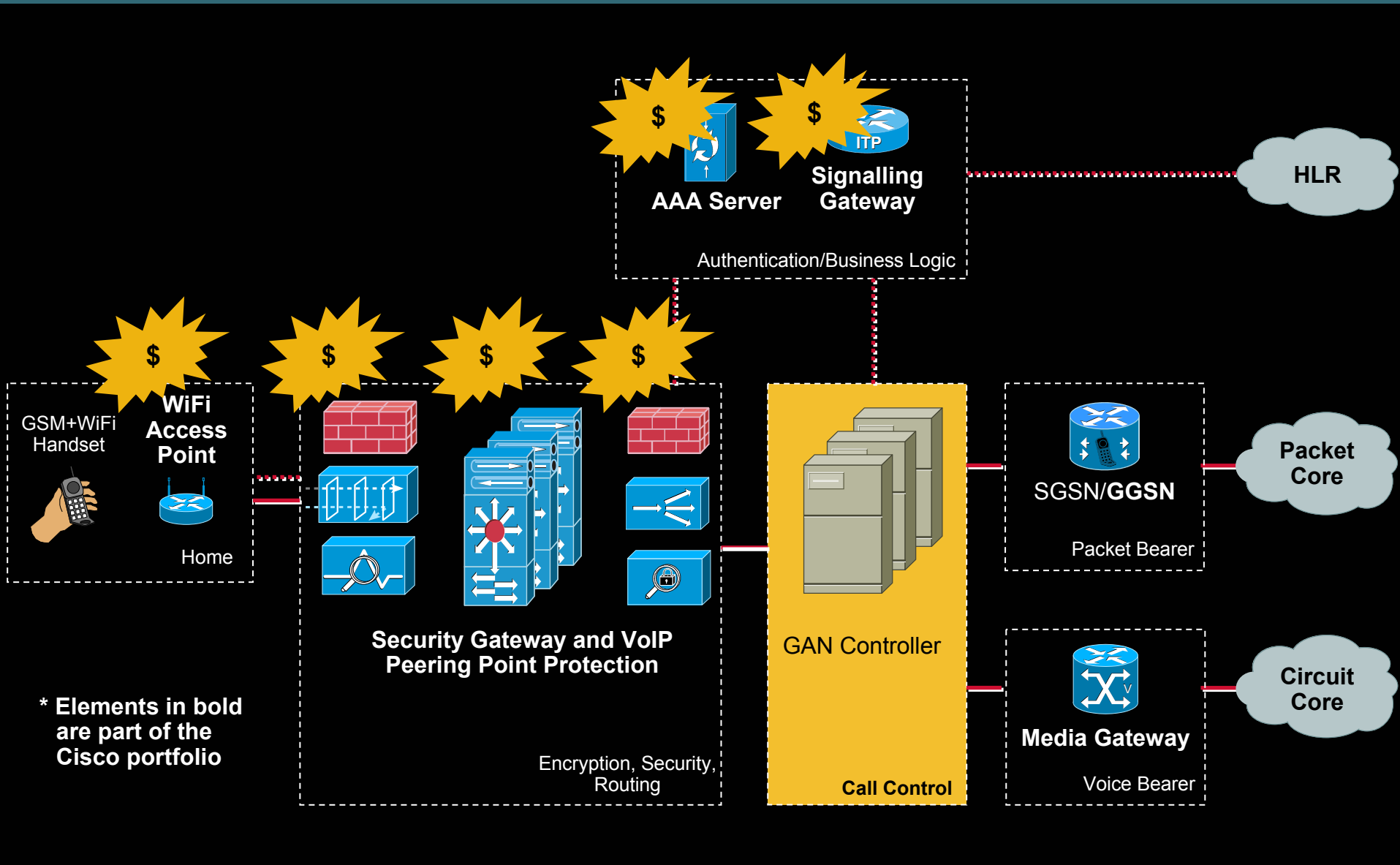


If You Build It…. They Will Come
Dual-Mode Phones Already Under $200 USD

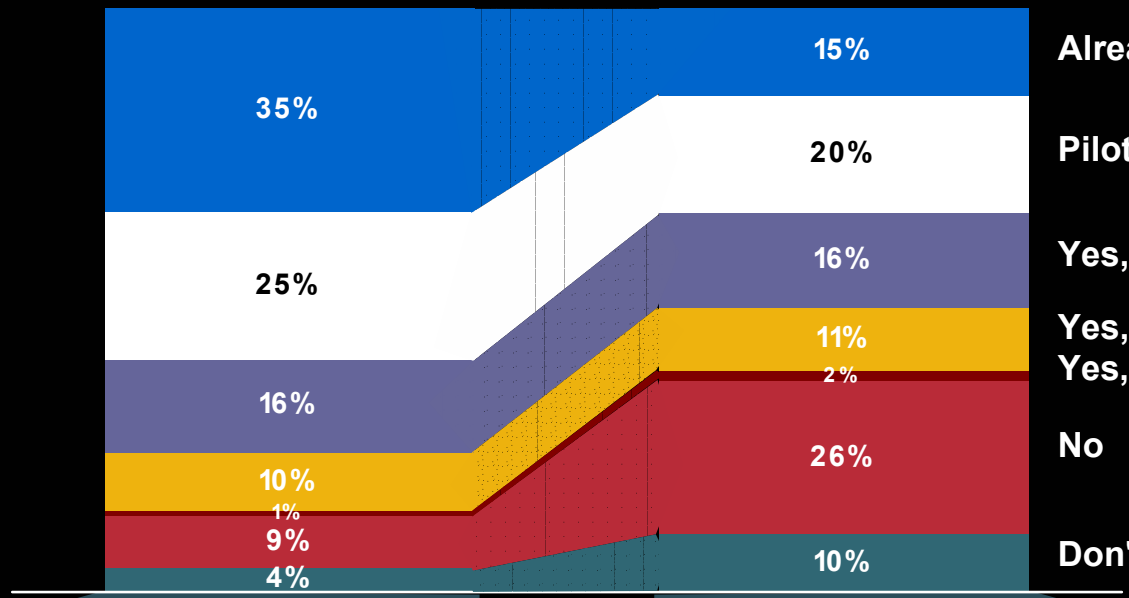
< $200 Handsets launching for CY06 summer trials:



What Can Be Sell in a UMA Architecture



Wireless Data Applications are Taking Off



Are you likely to install a wireless local area network (WLAN) that would enable wireless computer connectivity?

Are you planning to deploy or pilot a wireless data enabled wide area system (i.e. over a cellular network)

Source: Yankee Group 2005 Transatlantic Wireless Business Survey

Why SPs Want Converged Commercial Data Entry into New Markets w/ New Revenue Streams

Work Locations

Customer Site

Exhibition

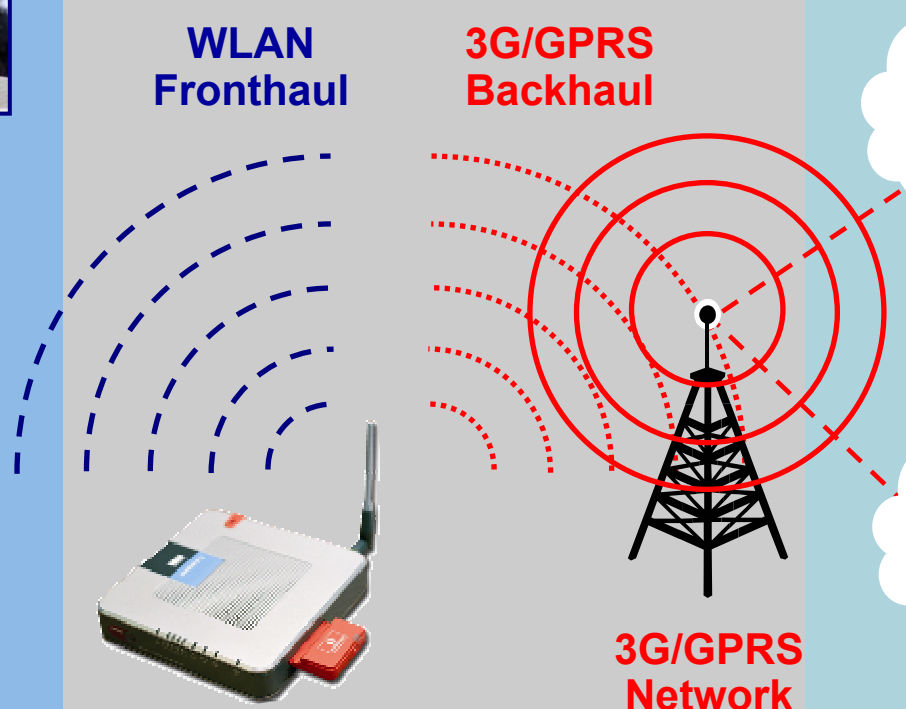
Emergency

Construction Site

Office

Home

Connectivity



Information

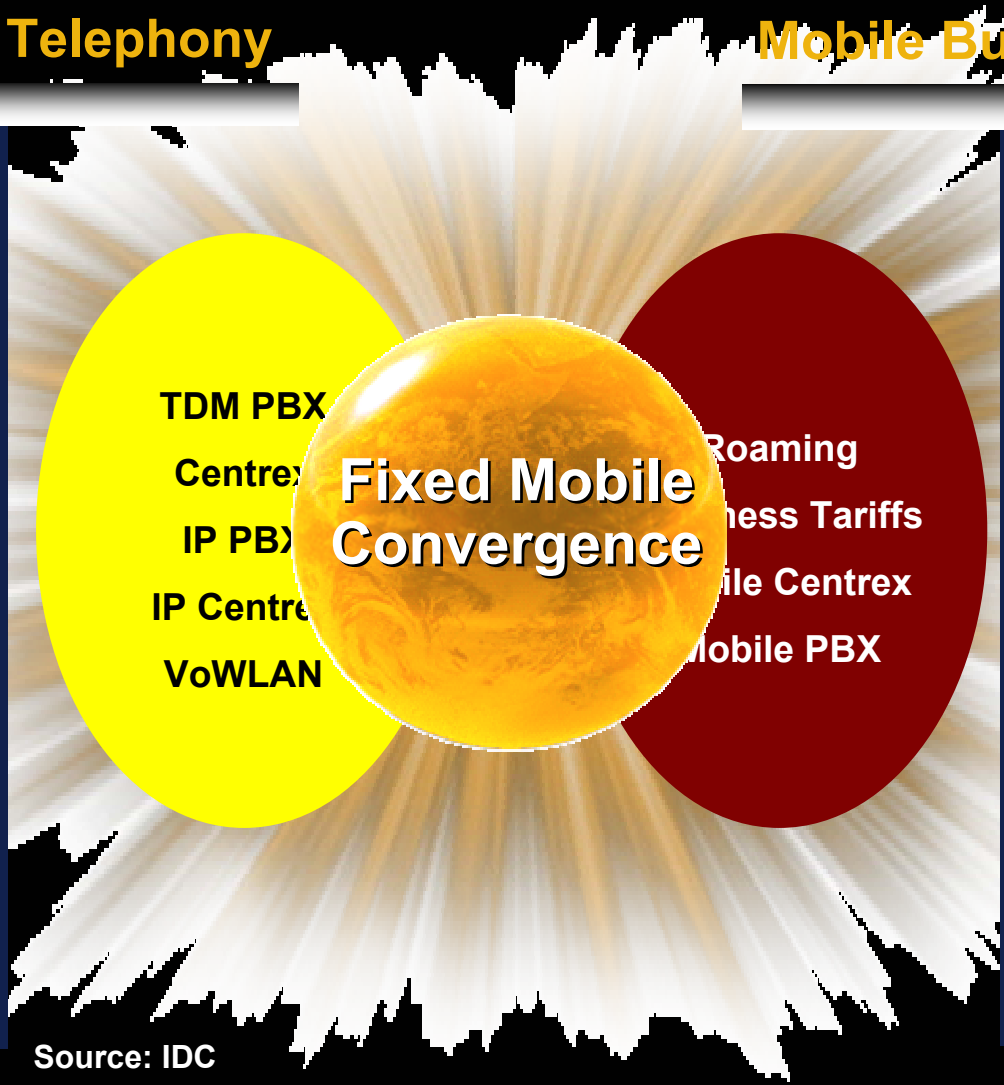
Co-Branding is Powerful

- Crest & Scope
- Tide & Downey
- Mercedes & AMG
- Sony & Ericsson
- Vodafone & Linksys

Fixed Mobile Convergence Islands of Opportunity

Fixed Corporate Telephony

- 430m PBX lines WW
- 85% run their own PBX
- Voice is largest IT application 10-25% of technology budgets go to voice



Source: IDC

Mobile Business Telephony

- 50m+ business mobile phones
- 30-40% of enterprise telephony costs are mobile
- 10-25% of calls are in-building

Why Enterprises Want Convergence
Innovation has Created Complexity

Communication Devices and Apps **Proliferating…**

6.4 Types of Devices

27% Traveling
1X Month Avg.

Employees **Increasingly Mobile…**

…Have to Use **Multiple Methods** of Reaching Coworkers…

Daily **52%**

…Unable to Reach Coworkers on **First Try…**

Daily **36%**

…Results in **Delays and Missed Deadlines**

Monthly **22%**

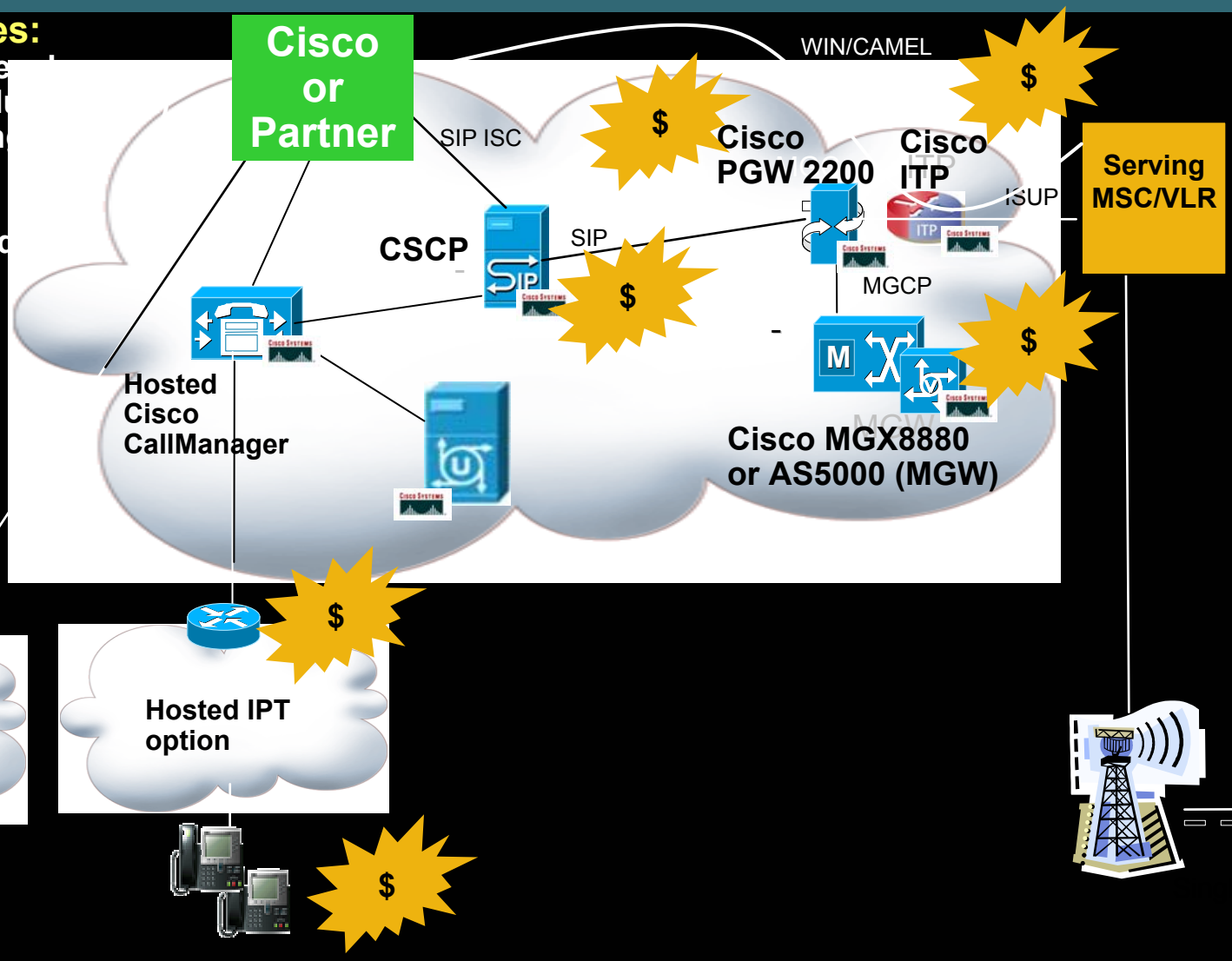
Impacting the Top and Bottom Line

Source: Sage Research

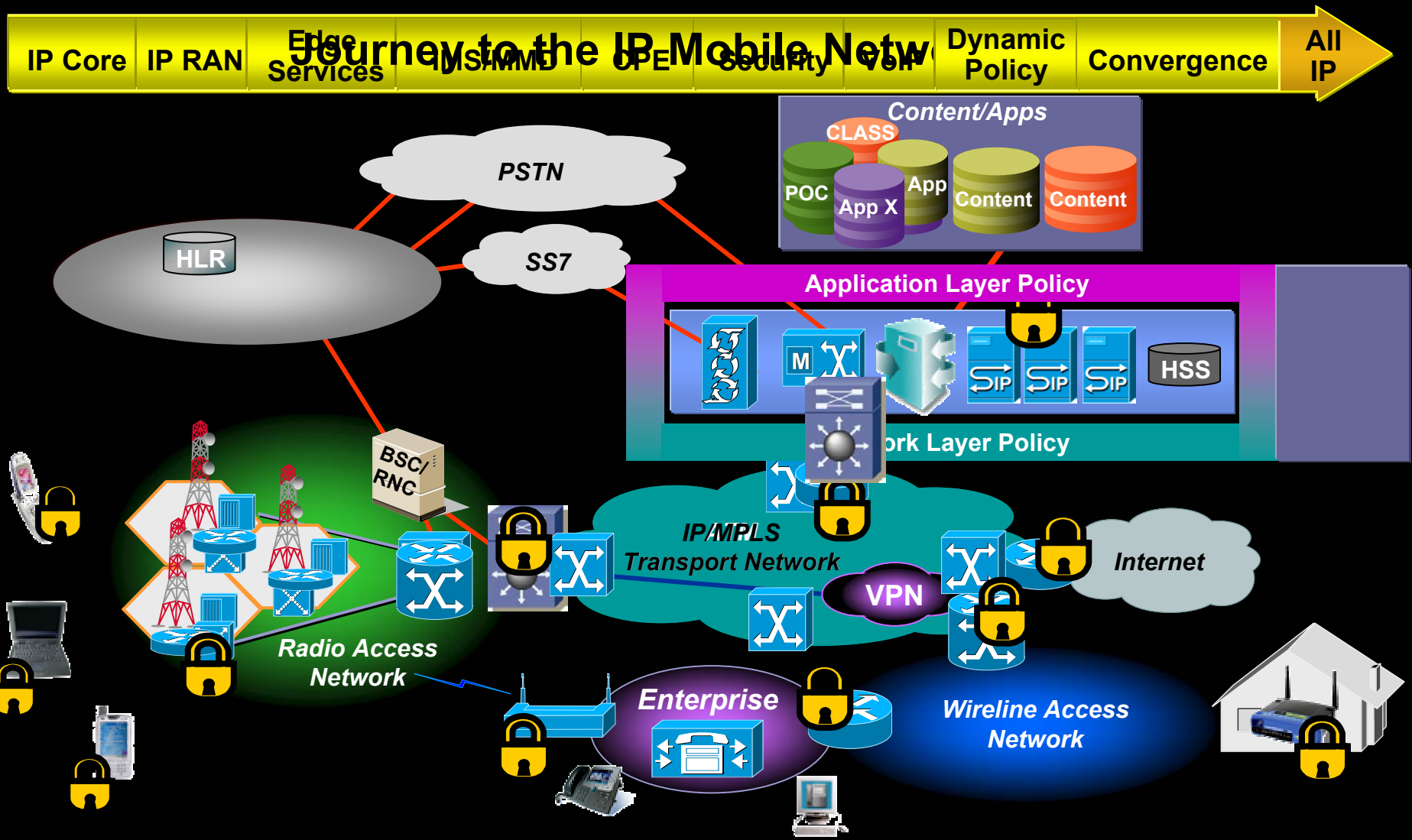
What Can be offered in Enterprise FMC

Example Features:

- Single Number Re
  (Single number, d
- Simultaneous Rin
- Call Pick up
- Hunt Groups
- Switch Device mic



The Mobile Network Evolution



Fixed-Mobile Convergence Thoughts

Two Phases to Fixed-Mobile Convergence

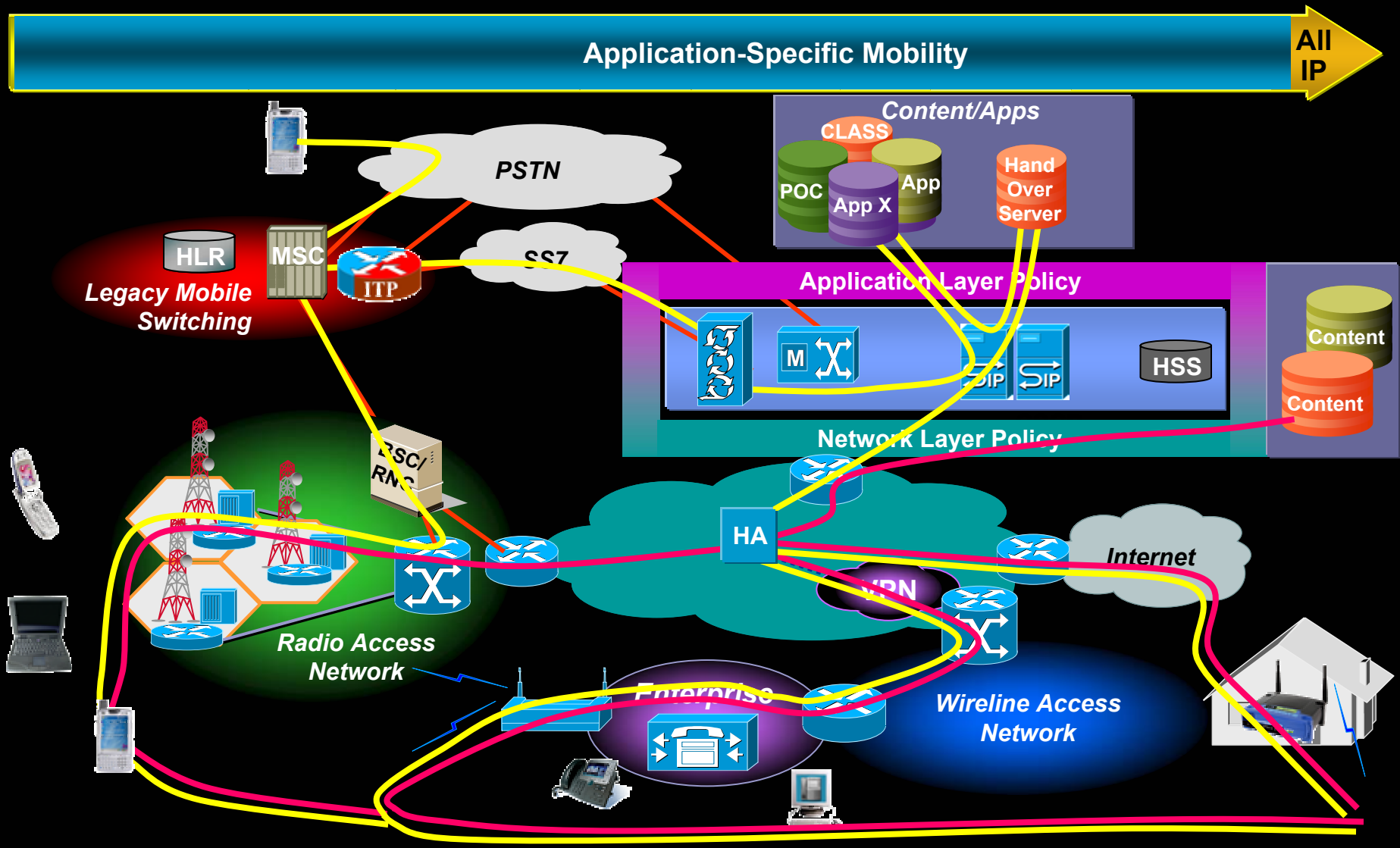
- **Phase 1 – Application-Specific Mobility**

  Inter-technology Mobility depends on the Application

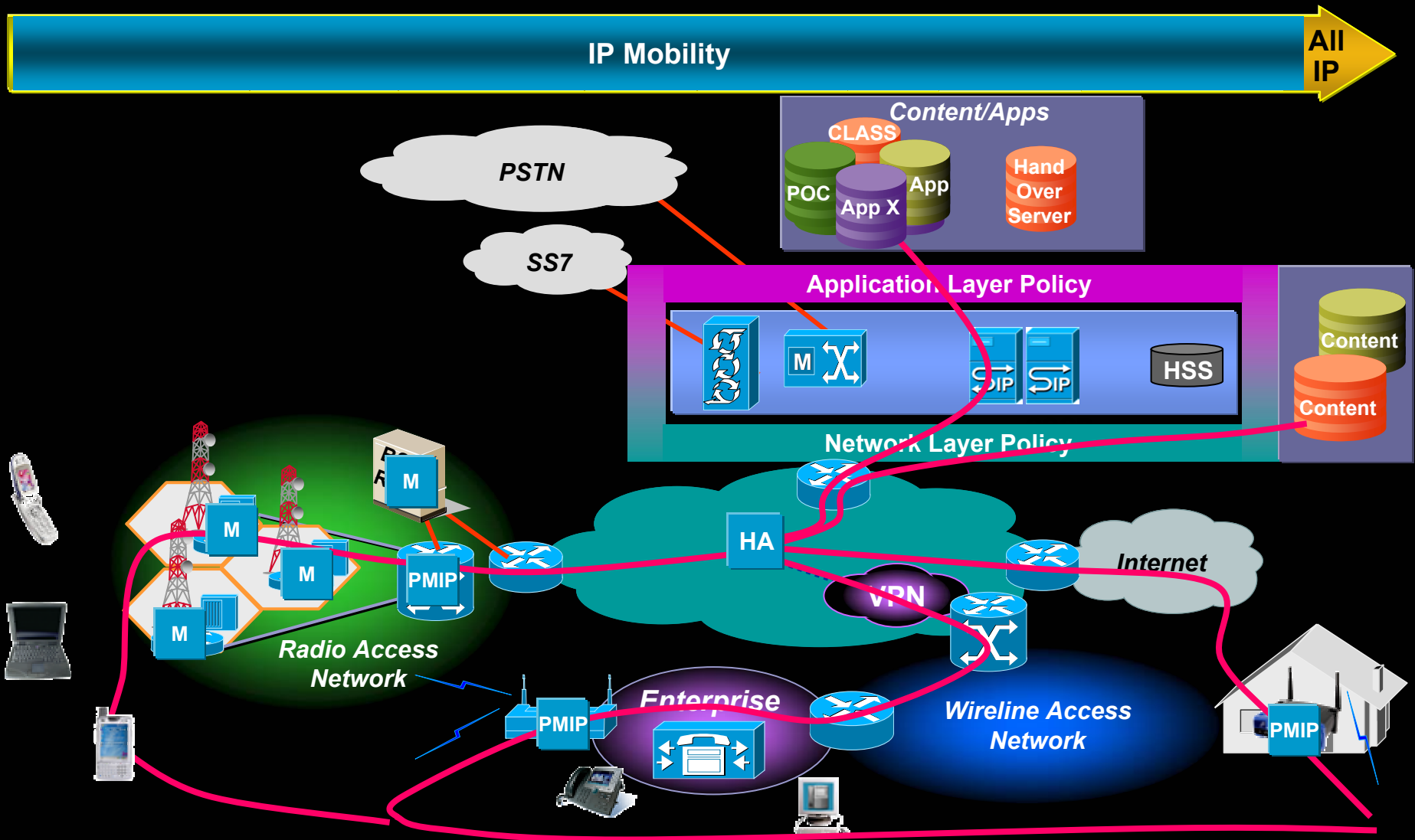
- **Phase 2 – Access-Independent Mobility**

  Inter-technology mobility is handled at Layer 3

Application-Specific Mobility



Access-Independent Mobility



Mobility.

Innovation powered by Cisco