A GLOBAL, CONVERGED IP NETWORK. NO ASSEMBLY REQUIRED.

Traffic growth and expanding services

Jos Martens

Agenda

- Intro to Global Crossing
- Juniper Partnership
- The Traffic Growth and Global Crossing
- What does a global carrier do with IMS/FMC

Who We Are

"Global Network with Local Relationships"

At Global Crossing, Customer Relationships are as Global as our Network.

Sales and Customer Support presence in 18 countries, fluent in over 20 languages

- Sales Teams: North America, Europe, Latin America, and Asia Pacific
- Global Partners Program Team
- IRU and Capacity Services Team
- Sales Engineers and Sales Support Team

Some of Our Customers

Cable TV Providers Internet Service Providers Application Service Providers	Global Carriers PTT/National IXCs CLECs, ILECs	Facility-based Resellers Switchless Resellers Prepaid Card Providers	Wireless Carriers Satellite Service Providers Virtual Network Operators

Qwest Spirit of Service™ · PCCW® · OTEGlobe · HEAnet IRELAND'S NATIONAL EDUCATION & RESEARCH NETWORK · T-Mobile · CABLE & WIRELESS · VTR · allstream · TELMEX® · Comsat INTERNATIONAL · Telstra® · CABLEVISION · vodafone™ · EMERGIA · LIMELIGHT NETWORKS · FIBERNET bespoke networks · CENTENNIAL

Industry Analyst Views

Capacity Magazine Names Global Crossing "Best Global Wholesale Provider"

"With many qualified candidates from which to choose, the judges enthusiastically agreed that Global Crossing should receive top honors as 'Best Global Wholesale Provider' for consistently delivering market-leading, quality global wholesale services," said Mark Kemp, Capacity's CEO. "Global Crossing has pioneered next-generation services, offering a full range of industry-leading IP, data, and voice products. In addition, Global Crossing's customer feedback is consistently positive - a strong indicator of superior service.“

Mark Kemp, *CEO Capacity Magazine*

Other Awards

- 2006 Atlantic ACM U.S. Carrier Wholesale Excellence: Global Crossing #1 Quality of Data Products & Value
- 2005 Frost & Sullivan Industry Innovation & Advancement Award
- 2005 Frost & Sullivan Product Differentiation Innovation Award

Full Suite of Wholesale Solutions Supporting Customer Specific Solutions

Data/Transport Services
- Private Line
- Wavelength
- Ethernet PL
- Dark Fiber & IRU
- ATm/Frame Relay

Access Services
- Metro
- Local
- xDSL
- Mid Span Meet

Housing Services
- Colocation
- OnSite Assist

Collaboration Services
- Audio
- Web
- Video

IP Services
- IP Transit
- IP VPN
- Ethernet IP

VoIP Services
- VoIP Outbound
- VoIP Local
- VoIP TF Transport
- Enterprise Connect

TDM Voice Services
- Outbound
- Inbound
- Local

uCommand
Customer web portal
- Order Management (eOrder,Status,Pricing)
- Trouble Management
- Account Maintenance
- Network Management
- B2B Services
- Rebranding
- End User Access

Fast-Track Services

Services subject to availability

Global Crossing®

Global Partners Program

Fast-Track Services: Global Reach and Service Expansion

Global reach	Serve out-of-region end customers with voice, video and data with minimal capital expense
Service expansion	Increase revenue by offering value-added services in new markets
Reduced time-to-market	Faster revenue realization
CAPEX/OPEX savings	Build network/add service capabilities without significant CAPEX or OPEX

A powerful alternative to Equant and BT/Infonet providing the advantages of partnering with a provider oriented to this changing world.

Global Crossing Network Overview

Network Performance

- ❑ Exceeds FIVE 9s (99.999%) availability worldwide

Network and Service Reach

- ❑ Build out to 300 cities and 30 countries.
- ❑ Services to 600+ cities and 5 continents.
- ❑ 2006 New POPs in Brussels, Munich, Helsinki, Toronto more to follow

Services

- IP Transit
- IP VPN Services
- VoIP Services
- Private Line
- Ethernet
- IP Video and Collaboration services
- ATM and Frame Relay Services
- Wavelength and Dark Fiber Services

Pan-European Network Statistics

- 14,463 Mile / 23,276 Km Fiber Network
- 40 Points of Presence
- 11 Metro Networks
- 2.5G and 10G DWDM Systems
- Self-Healing Ring Architecture
- Scalable Transport
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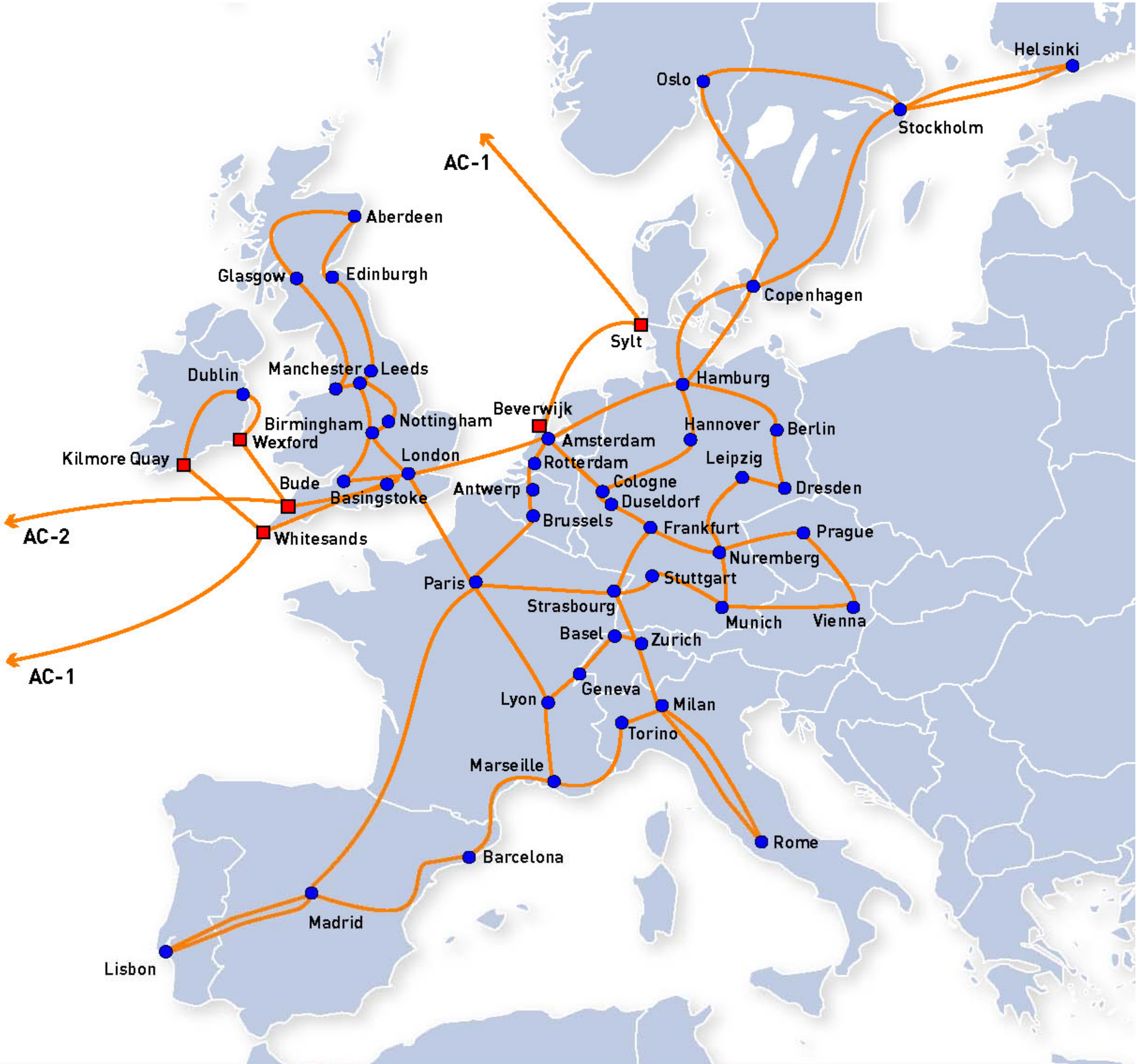
Landing Points
Core Network Reach



Pan-European Crossing (PEC) – Terrestrial System

Global Crossing

Our French locations

- Paris-Clichy Rue Petit 7 - 9, BIC building, 92110
- Paris-Tremblay Avenue des nations 227, Zone Industrielle Paris Nord II, 93290,
- Paris-Courbevoie Boulevard de Verdun 124, 92400 Courbevoie
- Paris, Redbus, 130 Bd de Verdun, 92413 Courbevoie Cedex
- Paris, Réaumur, Rue Réaumur 115, 75002 Paris
- Paris, Integra, Rue de la Belle Etoile, ZI Paris Nord 2 167
- Paris, IXEurope, Rue de la Belle Etoile, ZI Paris Nord 2 167
- Paris, Telehouse 1, Rue des Jeuneurs 38, 75002 Paris
- Paris, Telehouse 2, Boulevard Voltaire 137, 75011 Paris-en-Roissy
- Paris, InterXion 1 + 2 20 rue des gardinoux, 93 Aubervilliers
- Paris, Alcatel, Rue Latécoère 10, 78140 Villacoublay (Paris)
- Paris, Multicom, Allée Latécoère, Vélizy 6, 78140 Vilacoublay (Paris)
- Paris, LDCom Netcentre MMR, Boulevard de Verdun 124, 92400 Courbevoie (Paris)
- Paris, Le Capitole, Rue des Champs Pierreux 55, 92000 Nanterre (Paris)
- Paris, Completel, Rue des Sorins 15, 92000 Nanterre (Paris)
- Paris, Primus, Rue des Sorins 15, 92000 Nanterre
- Paris, Bouvets, Boulevard des Bouvets 1-5, 92000 Nanterre
- Paris, Valmy Tower, Cours Valmy, La Defense 17, 92987 Paris
- Paris, N9UFTelecom/ Vélizy site, Rue Nieuport 6, 78140 Velizy (Paris)
- Marseilles, Rue Leon Gozlan 4, Telehouse Markley, 6th floor, 13004 Marseille
- Lyon, Carrier Hotel 6 Rue George Maranne 69200 Venisseux
- Strasbourg-Kehl, Hafenstrasse 3, Ground & 1st Floors, 77694 Kehl

Swiss PoP's

- Zurich Aargauerstr. 10,
- Zurich, IXEurope, Hardstrasse 235
- Zurich (TIX) - IX Europe Telehouse 2, Josefstrasse 225

- Geneva Route du Bois-des-Freres 48
- Geneva, Cern building 513, Route de Meyrin

- Basel, IWB Telehouse, Margarethenstrasse 40

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Global Crossing & Juniper

Global Crossing®

History of the Relationship

- Relationship began over six years ago
- Juniper has a strong presence in the core of GC network
- The partnership continues to grow with GC Super Core
- Global Crossing chosen as a Global Elite Partner for resale
- Global resale entire Juniper portfolio : hardware, software and maintenance

Global Crossing®

Carrier Benefits

- Juniper reseller that is one of Junipers biggest clients and highly experienced with Juniper technology
- Single point of contact & single Global Crossing invoice
- Juniper Elite Partner pricing
- Broad hardware (J/M/T Series) portfolio for all size carrier needs
  - Includes Maintenance & Security components
- Juniper lab facilities
- Educated technical Juniper trained and "certified" resources

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The Traffic Growth & Global Crossing

Wall Street Journal: At long last, the pipes are starting to fill up.

For years, the fiber-optic communications industry has been awash in spare capacity that sent prices for data transmission plunging. Now, thanks to continued growth in Internet traffic, demand is beginning to catch up with supply in many areas of the active global network.

Still, plenty of inactive fiber-optic lines remain -- the majority of the lines put into the ground or underwater have gone unused for years and can be activated on short notice and relatively inexpensively. That means the glut has not come to a definitive end and consumer prices are unlikely to rise. But at the moment, prices for sending data traffic at least appear to be stabilizing, providing a welcome reprieve for companies that operate the so-called backbone of the world's telecommunications infrastructure.

Across the Atlantic, the industry raised capacity by about one terabit (a trillion bits) per second to about 5.5 terabits per second last year to meet growing demand, TeleGeography calculates.

Level 3 Chief Executive James Crowe admits "our crystal ball got cracked pretty badly there" during the tech boom, but says on Level 3's network now "there's every sign that inventory that was up on the shelf is being drawn down and in some areas even exhausted."

Mark Heinzl at mark.heinzl@wsj.com and Shawn Young at shawn.young@wsj.com

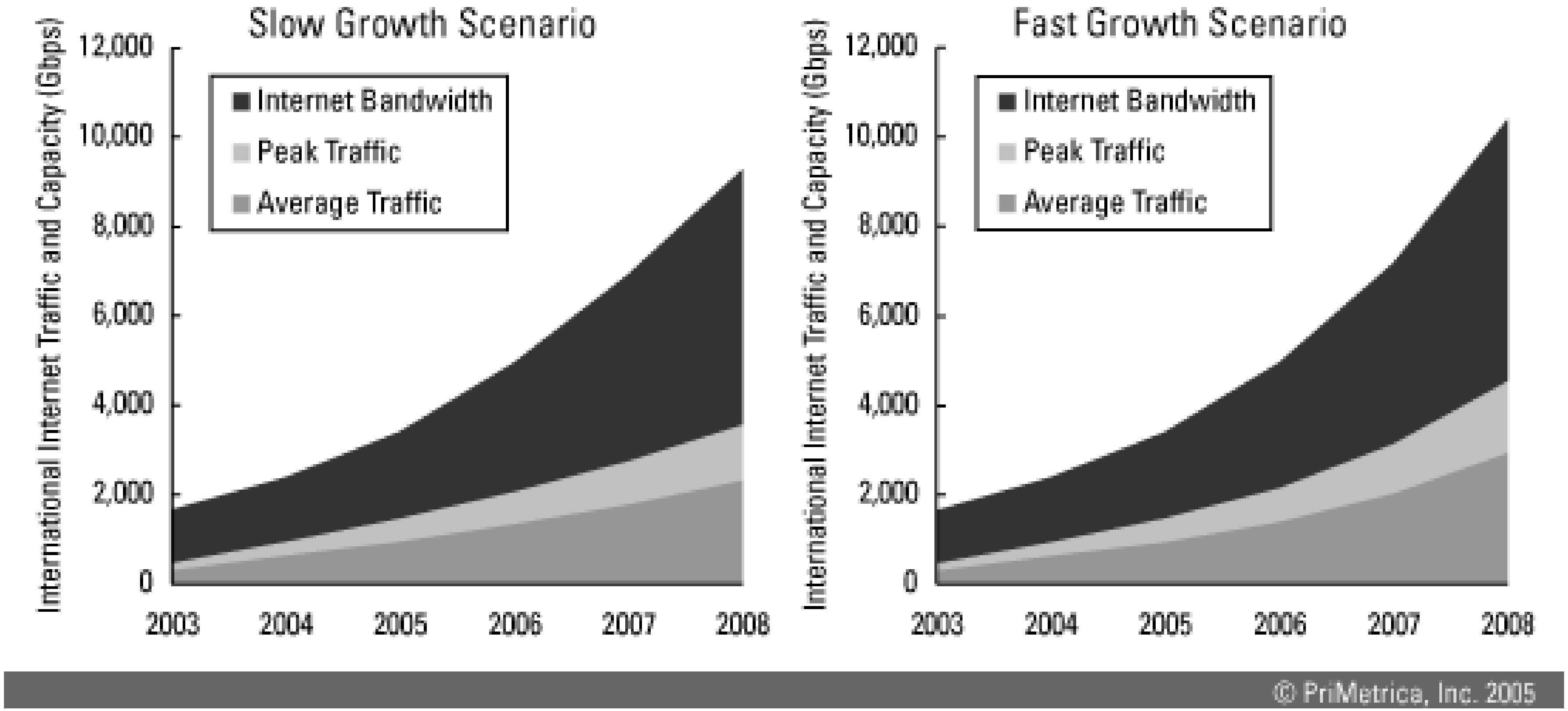
TeleGeography

The Bandwidth Glut is Over

Following several rough years, the global bandwidth market is showing signs of improved health: supply equilibrium, price stability, and competitor consolidation. Persistent international bandwidth demand growth has depleted inventories of unsold circuits on many submarine cables and on some segments of terrestrial networks. This has led many network operators, including VSNL, FLAG Telecom, Asia Netcom, and Telefonica, among others, to light additional wavelengths and fiber pairs on an as-needed basis. This incremental approach to managing spare circuit inventories means that lit bandwidth supply and bandwidth demand are coming into balance.

This doesn't mean a network construction boom is pending. Instead, operators will need to make more of what they already have -- most of the potential capacity in fiber networks remains untapped. According to the latest analysis released in TeleGeography's **Global Bandwidth Research Service**, by the end of 2006 little more than 14 percent of the potential capacity on major submarine cables will be lit.

International Internet Traffic and Capacity, 2003-2008



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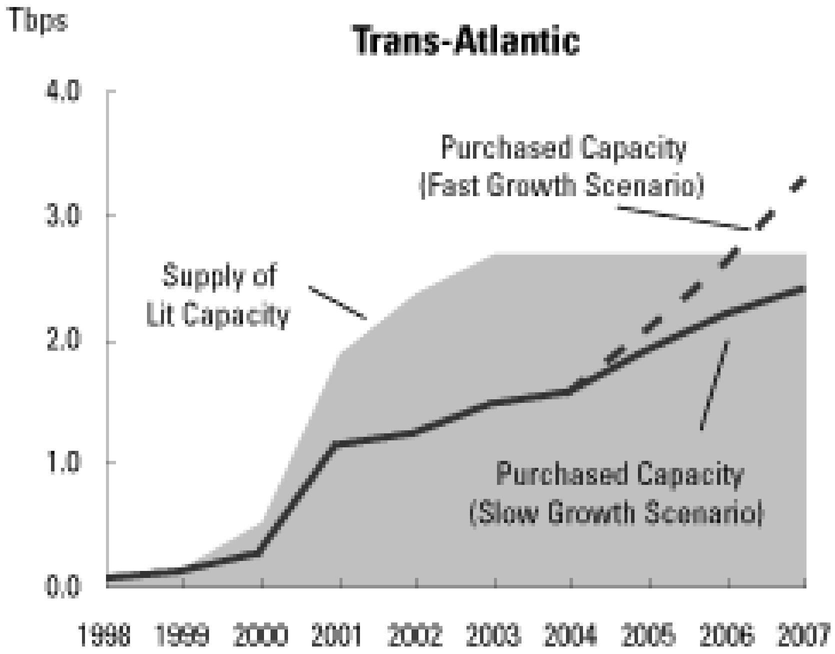
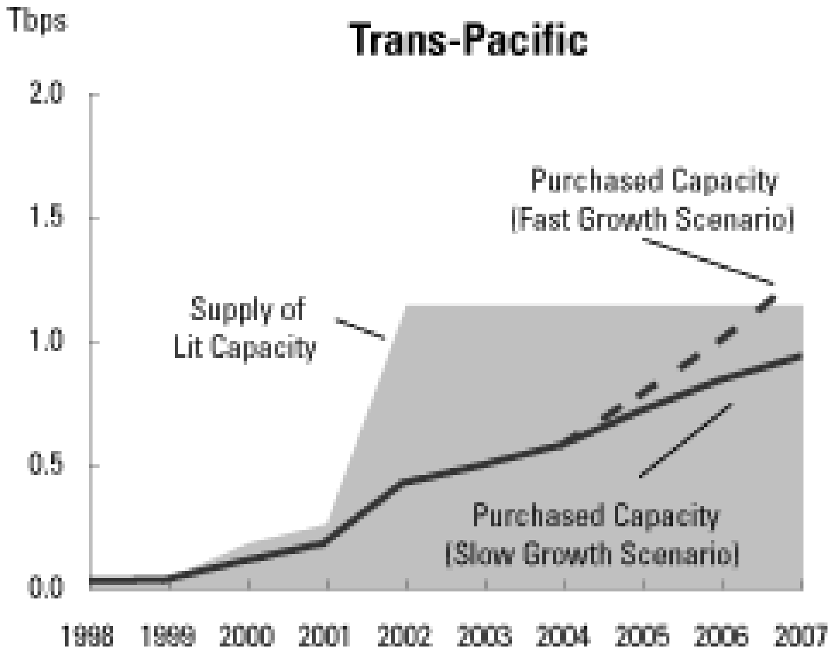
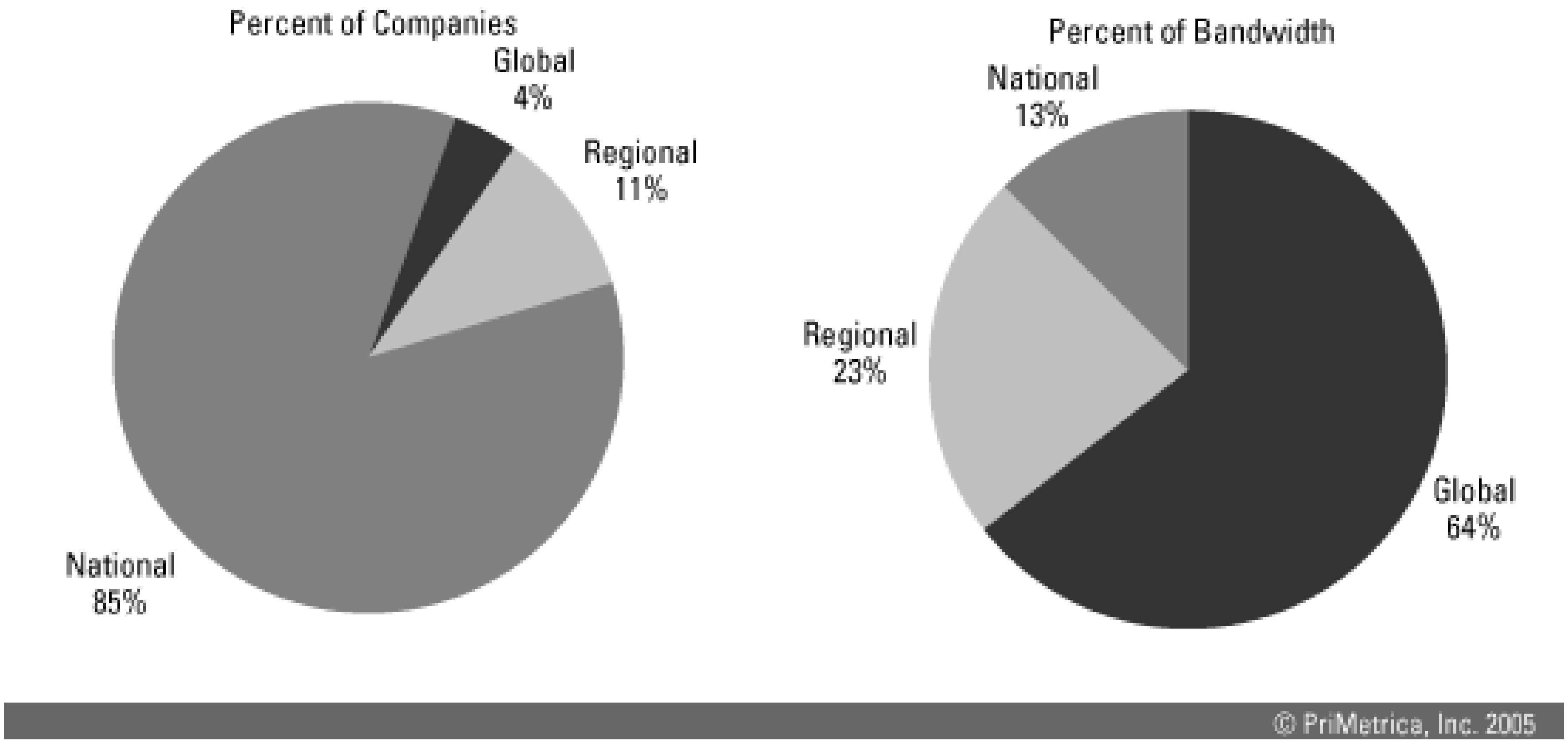
Dwindling Trans-Atlantic and Trans-Pacific Bandwidth Inventories





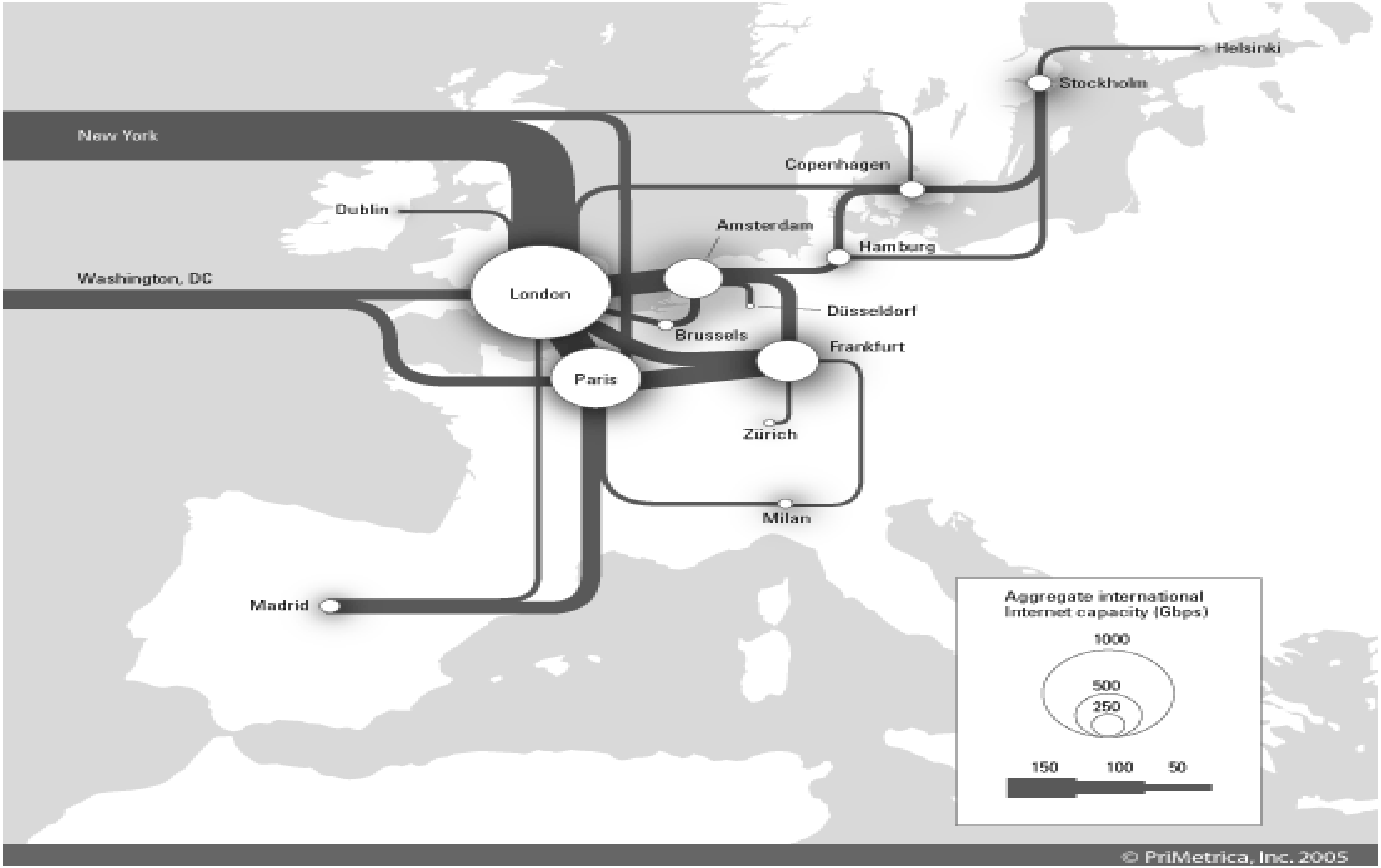
Global Crossing®

International Internet Provider Types, 2005

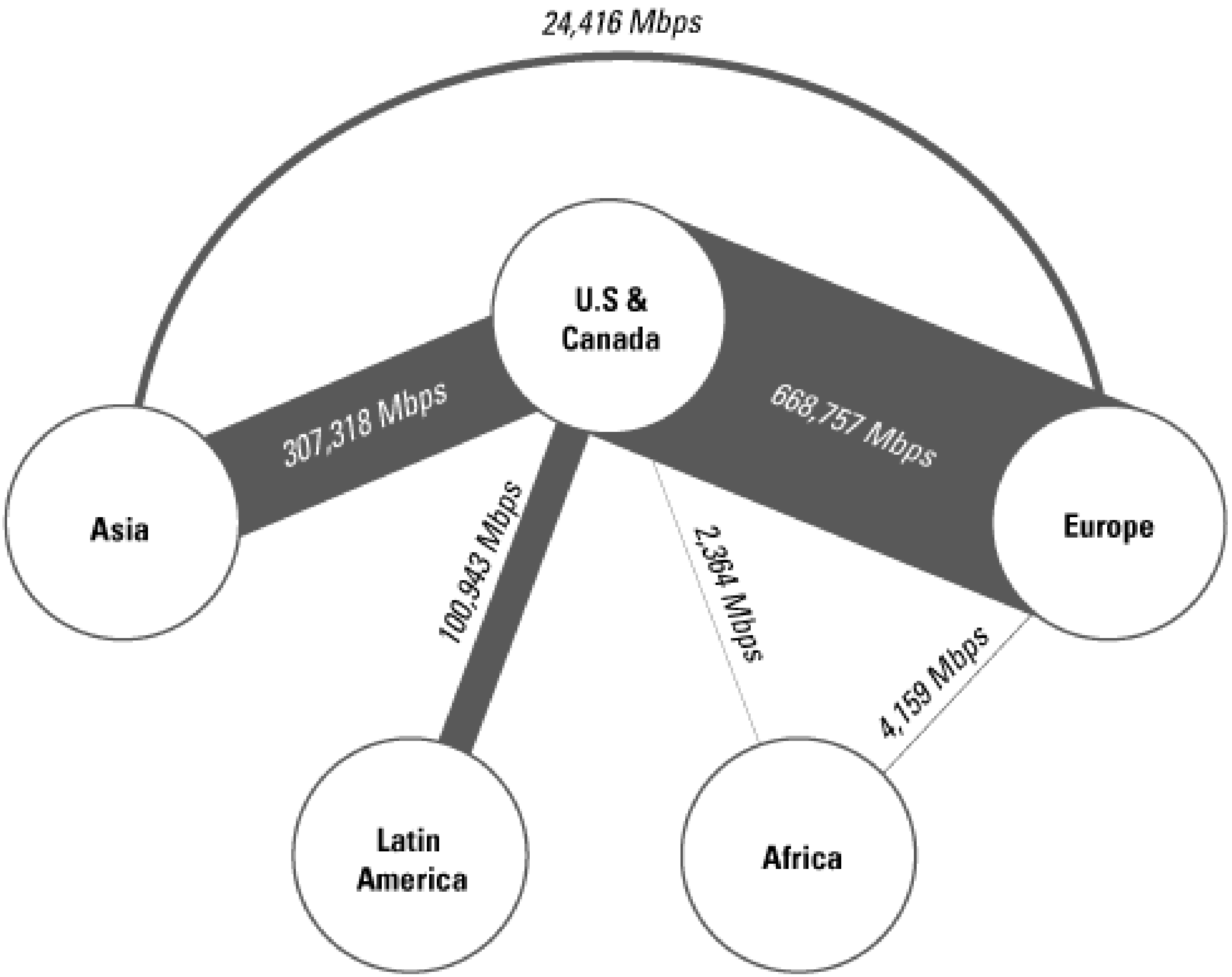


Global Crossing

Major International Routes in Europe, 2005



Interregional Internet Bandwidth, 2005



Global Crossing

We see our internet traffic growing rapidly:

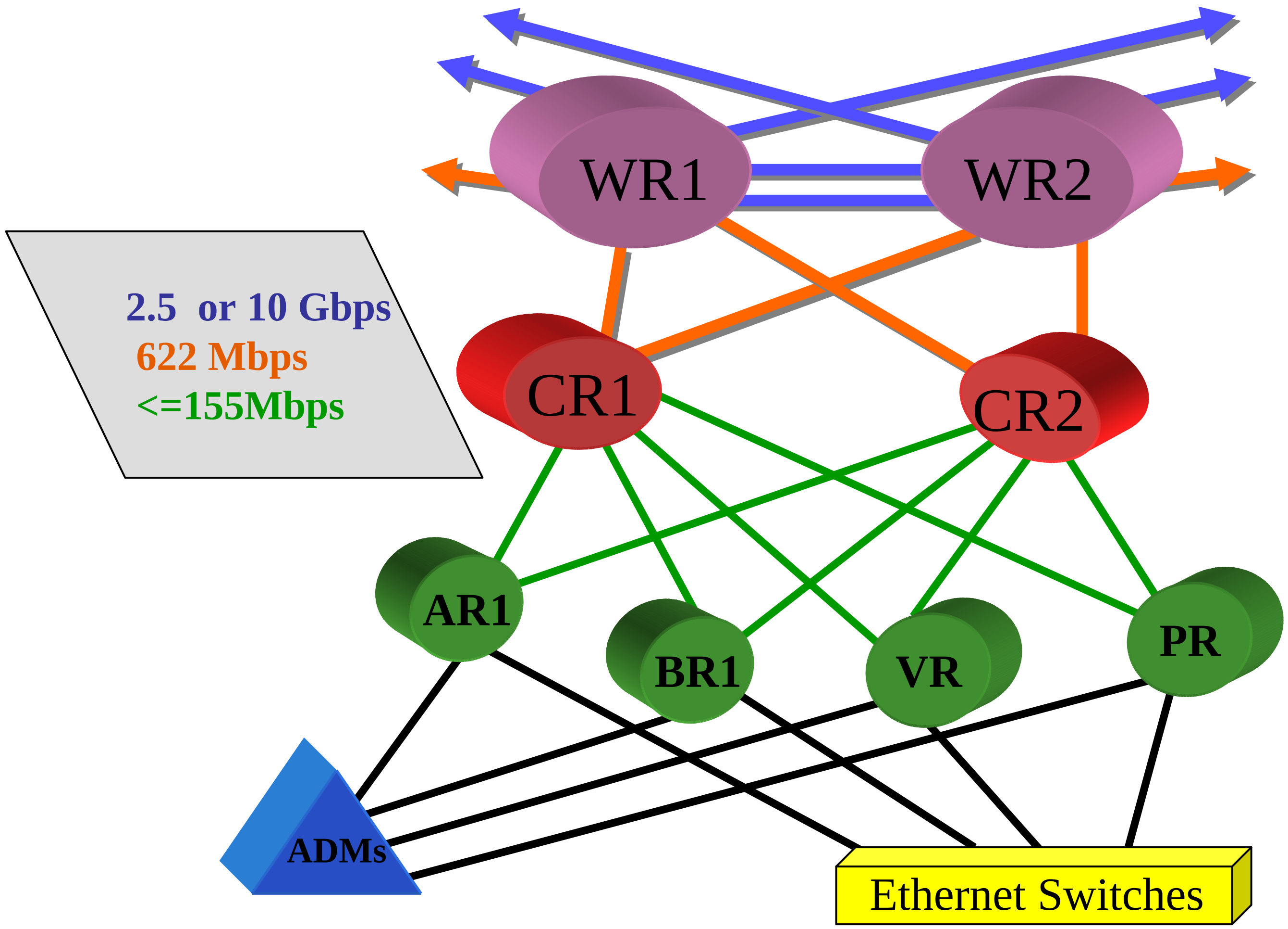
- 130G end of 2005
- 190G end of Q1
- Expect to be at 300G by year end

Redesign and upgrade of our complete backbone

- New hub architecture
- 16 Super Core Nodes (in place Q1)
- 5 Super Edge Nodes
- Juniper T640 in Core
- Cisco 7609 in Edge

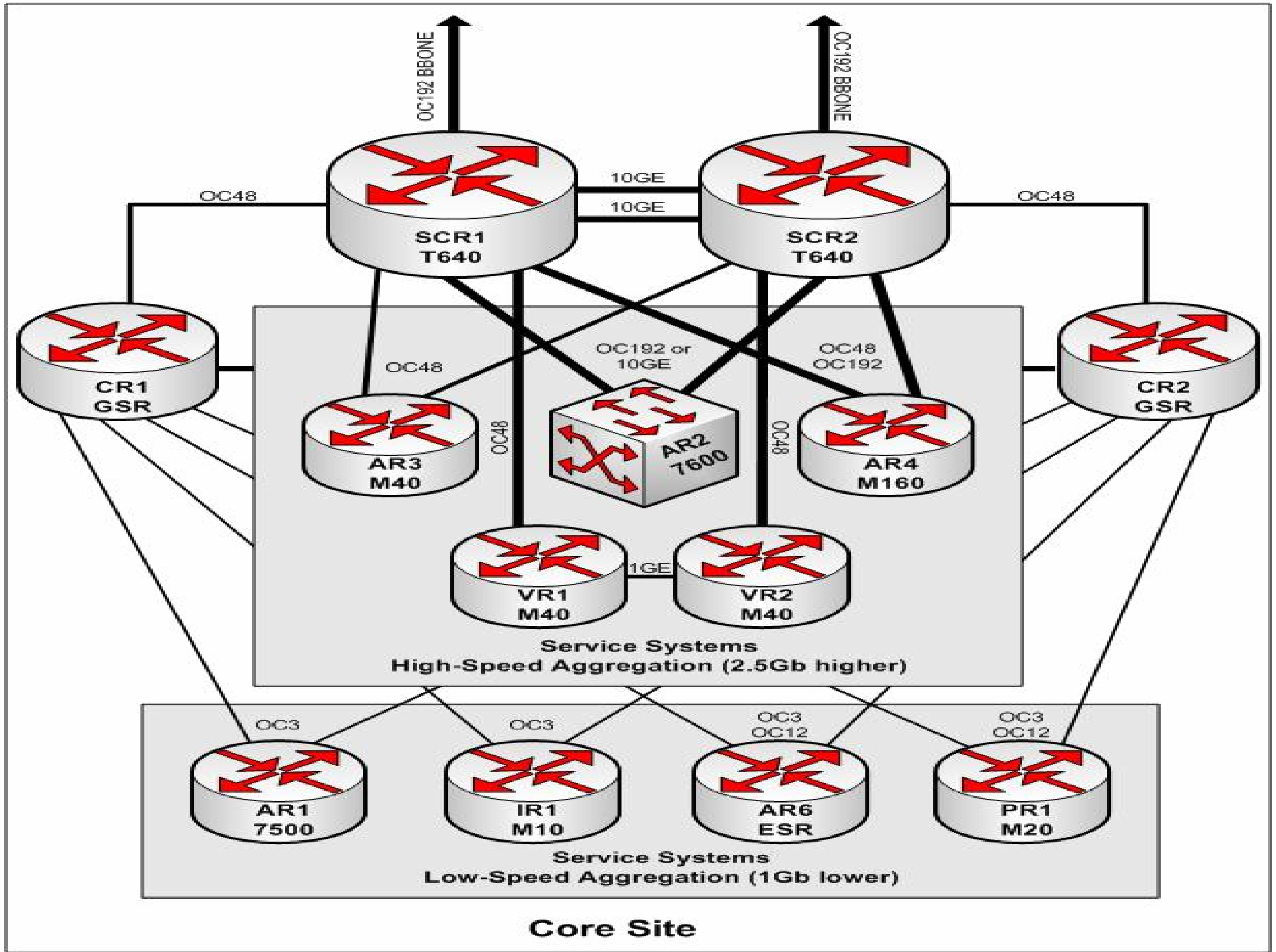
- Multiple 10G backbone connecting the Super core and edge

Old WHIP Hub Design



WR= WAN Router
CR = Core Router
AR = Aggregation Router
BR = Border Router
VR = VoIP Router
PR = Provider's Edge VPN Router

New Design


OC192 BBONE
OC192 BBONE
OC48
10GE
10GE
OC48
SCR1
T640
SCR2
T640
CR1
GSR
CR2
GSR
OC48
OC192 or
10GE
OC48
OC192
OC48
OC48
AR3
M40
AR2
7600
AR4
M160
VR1
M40
1GE
VR2
M40
Service Systems
High-Speed Aggregation (2.5Gb higher)
OC3
OC3
OC3
OC12
OC3
OC12
AR1
7500
IR1
M10
AR6
ESR
PR1
M20
Service Systems
Low-Speed Aggregation (1Gb lower)
Core Site

Services

- IP Transit
- IP VPN Services
- VoIP Services
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- Ethernet
- IP Video and Collaboration services
- ATM and Frame Relay Services
- Wavelength and Dark Fiber Services

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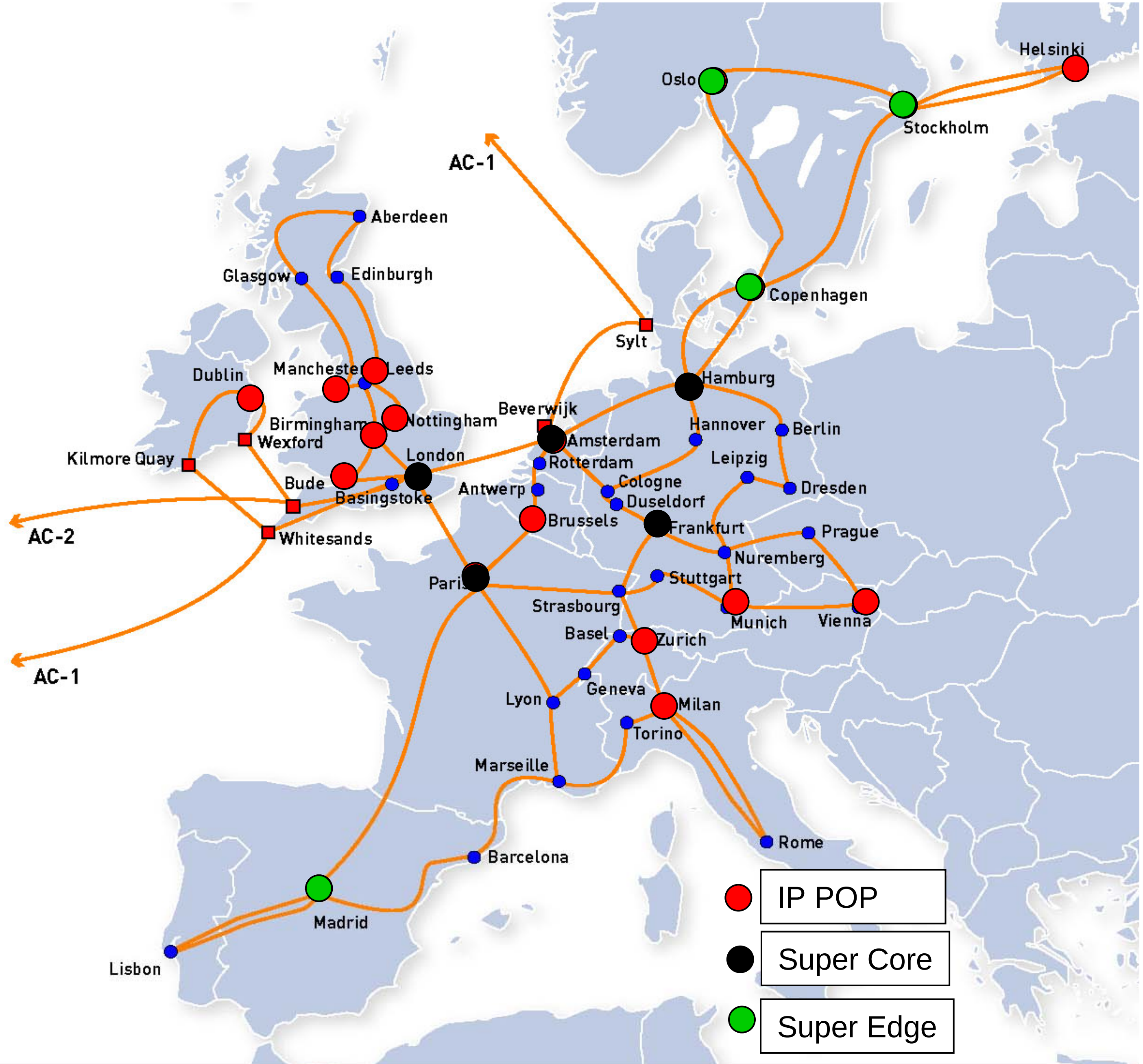
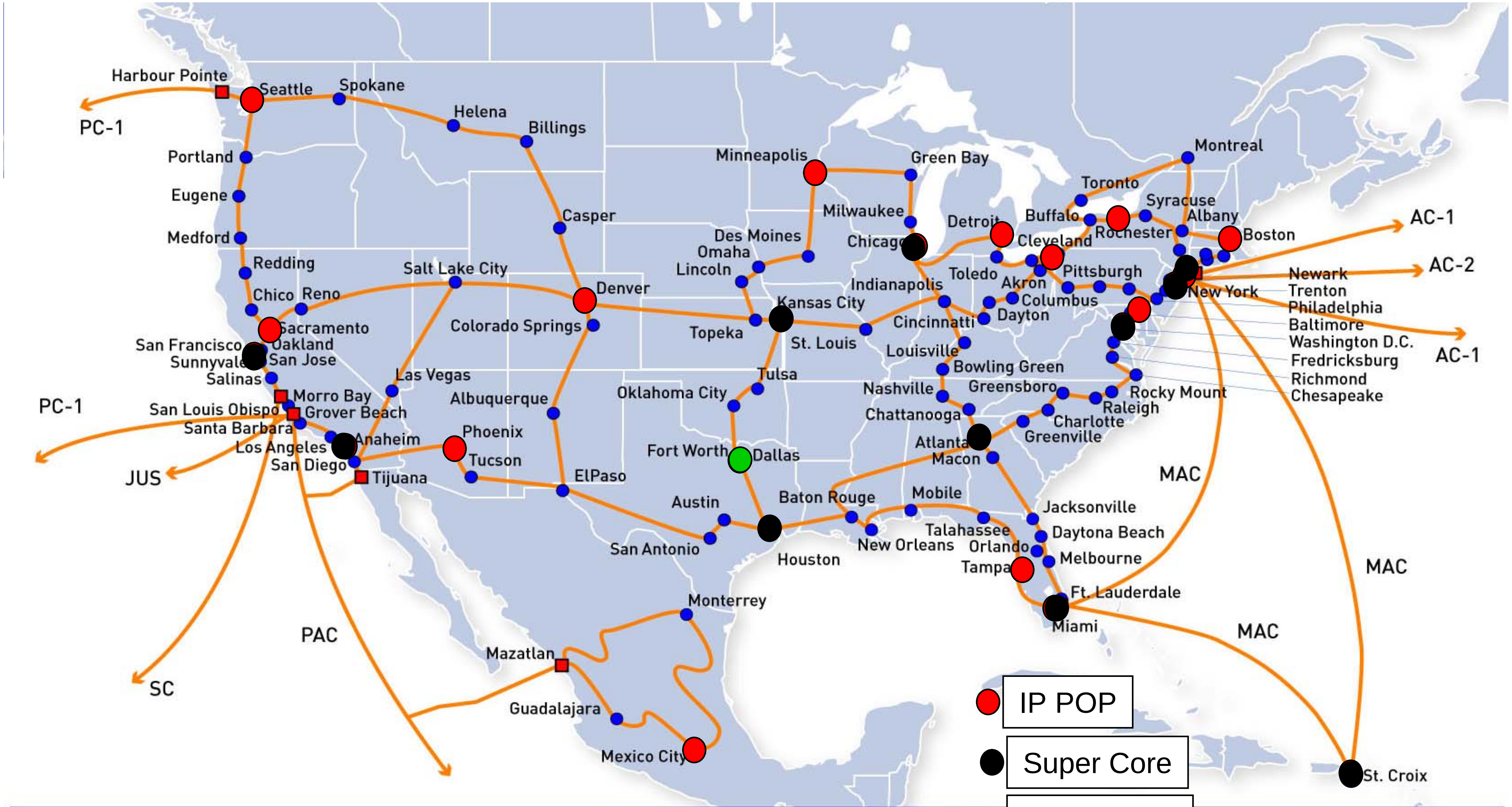
Landing Points
Core Network Reach



Pan-European Crossing (PEC) – Terrestrial System

Global Crossing



Network Statistics

- 18,714 (28,505 Km) mile Fiber Network
- 107 Points of Presence
- Varied Fiber Network (TW, LEAF, SMF)
- 2.5G and 10G DWDM Systems
- 20 Metro/City Ring Networks
- Self-Healing Ring Architecture
- Scalable Transport
- IP/ATM/SDH/DWDM

Services

- IP Transit
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Landing Points
Core Network Reach

North America – Terrestrial System

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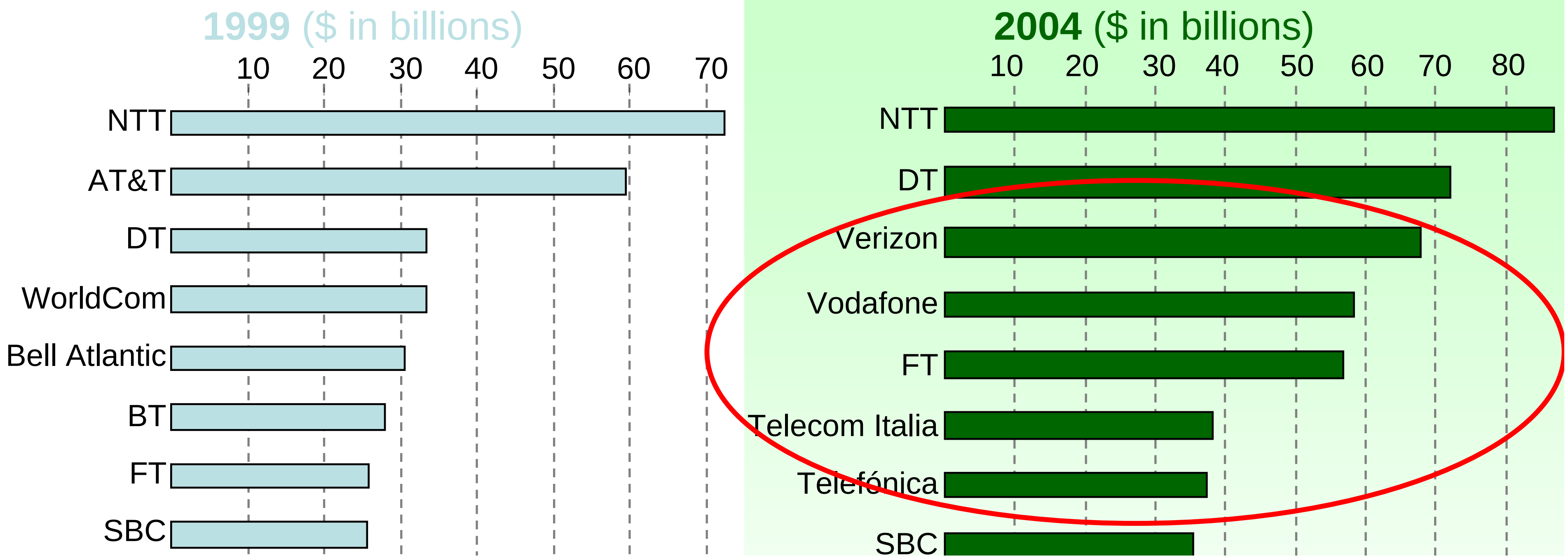
What does a global carrier do with IMS/FMC

Trend: Mobile and Convergence Drive Continued Consolidation

Top Telecom Carriers by Revenue



Gartner Communications Group Research Oct 2005

Trend: Economics and Value of Voice Fundamentally Shift

➔ By 2009:

- 99% of *new* voice connections will be wireless
- 70% of *total* voice connections will be wireless
- One-third of consumers will disconnect their PSTN lines in favor of VoIP and wireless
- Vonage, Ebay/Skype, Google, Yahoo, Microsoft and others win share via:
  - Integration with IM, SMS
  - Persistent directory
  - Presence integration
  - Unified communications with P2P architecture

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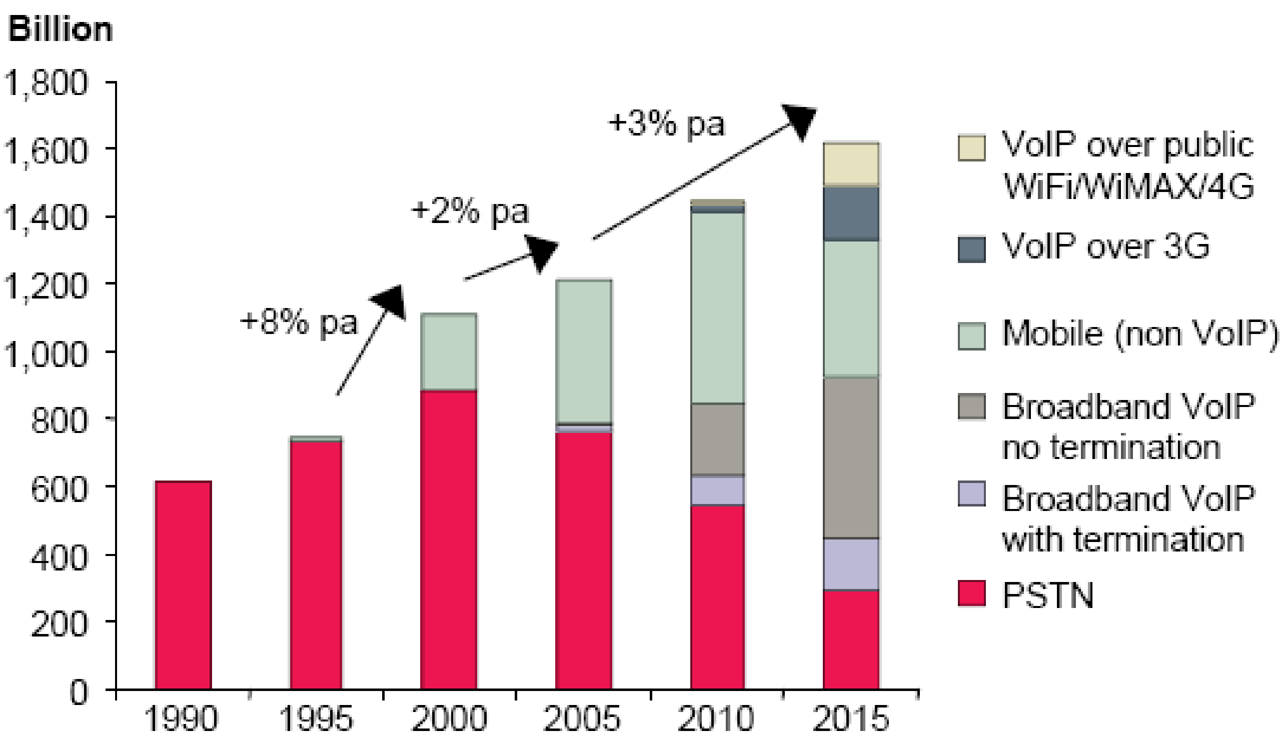
Gartner Communications Group Research Oct 2005

Voice Minutes

Figure 42 **Western Europe: voice minutes**



Source: Ovum

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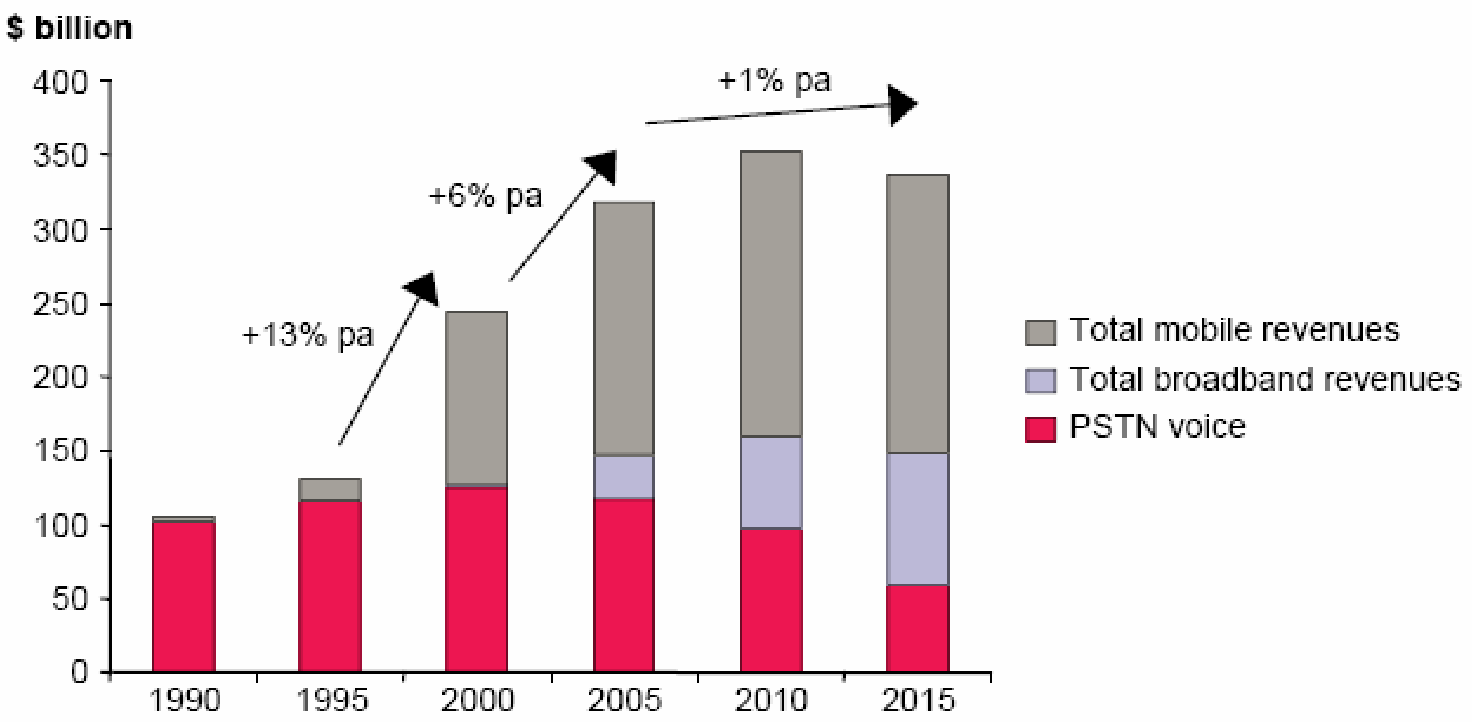
Revenue

Figure 44 **Western Europe: all PSTN, mobile and broadband revenues**



Source: Ovum

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Changing Industry View has Developed

Complexity with today's VoIP services: multiple devices, multiple accounts, no services consistency

Wireless preferred over fixed for voice, messaging and data are quickly catching up

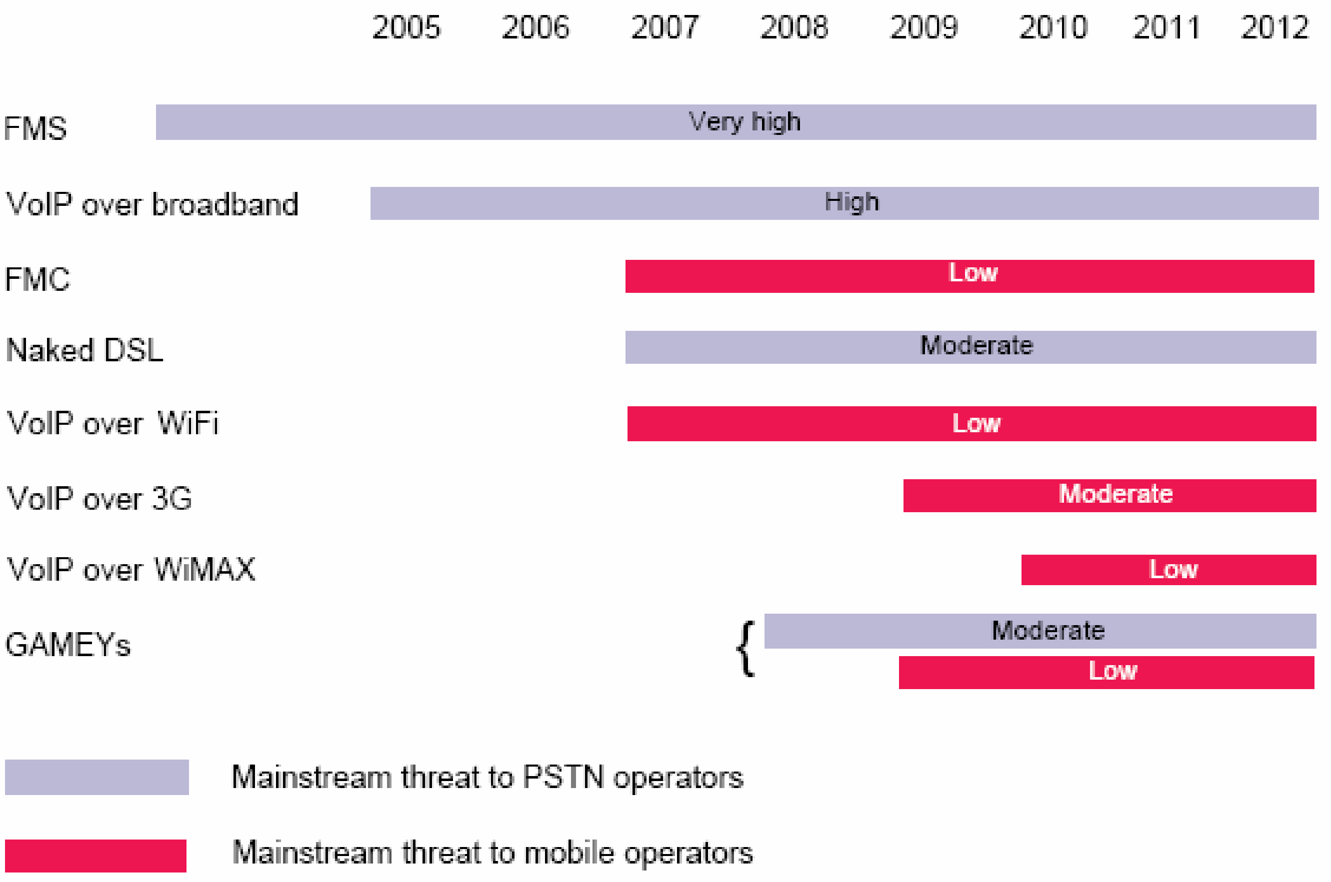
Many new entrants via Voice over Broadband (Vonage, etc.)

Crowded field, similarity of services makes differentiation difficult, and deployment of services too long

New Business Model

- Single provider of wireless, wireline, and services
- Mobile voice a key bundle component
- Voice over Broadband as a strategy for consumer wireline voice access
- Differentiation via innovative services provided to all subscriber access methods

Figure 7 **Major threats to service operators**



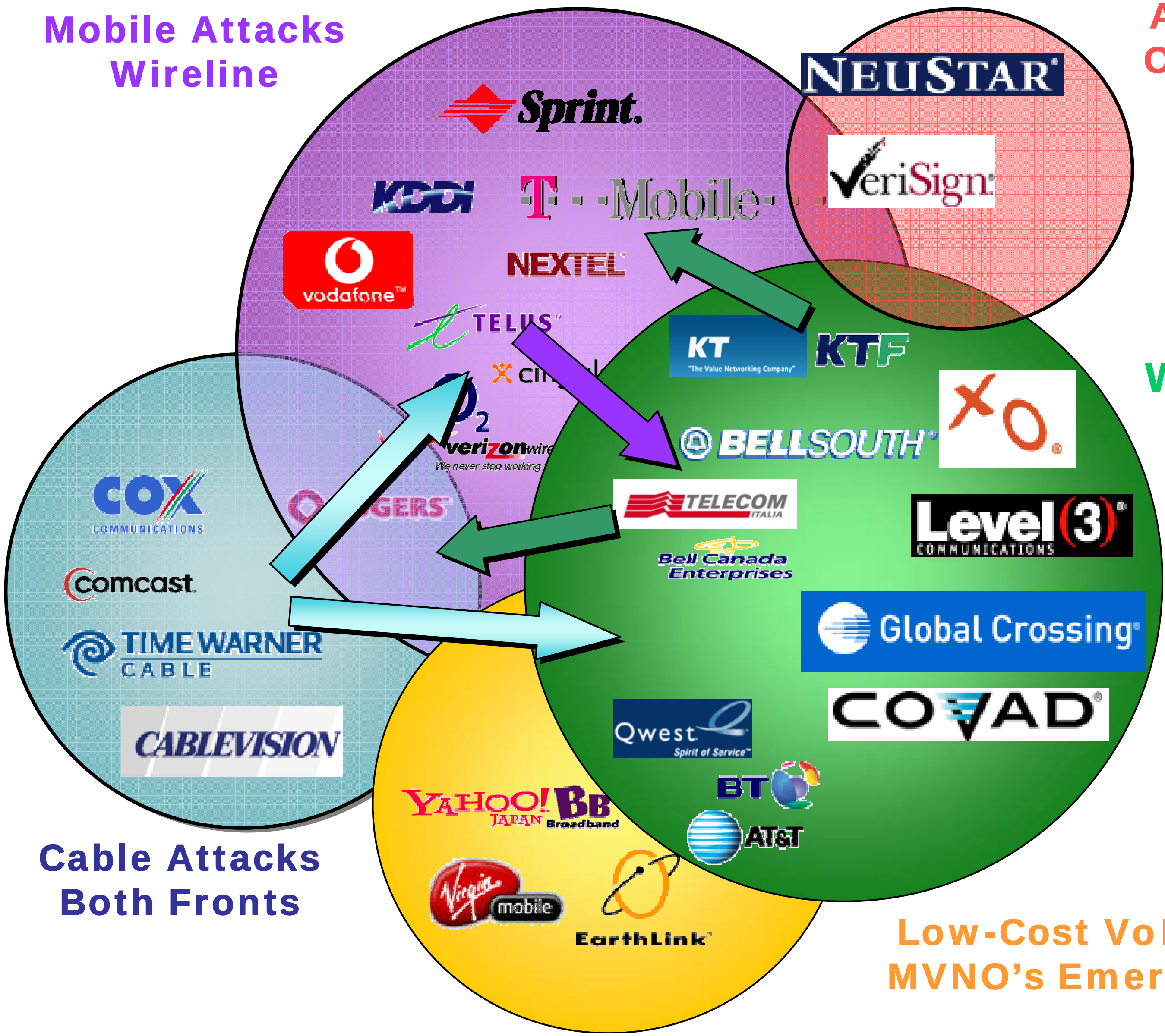
GAMEYs : Google, AOL, MSN, eBay/Skype, Yahoo!

Source: Ovum

Service Provider Opportunity & Strategy

Mobile Attacks Wireline

ASP's Seize Early Opportunity - Sell Hosted FMC Applications



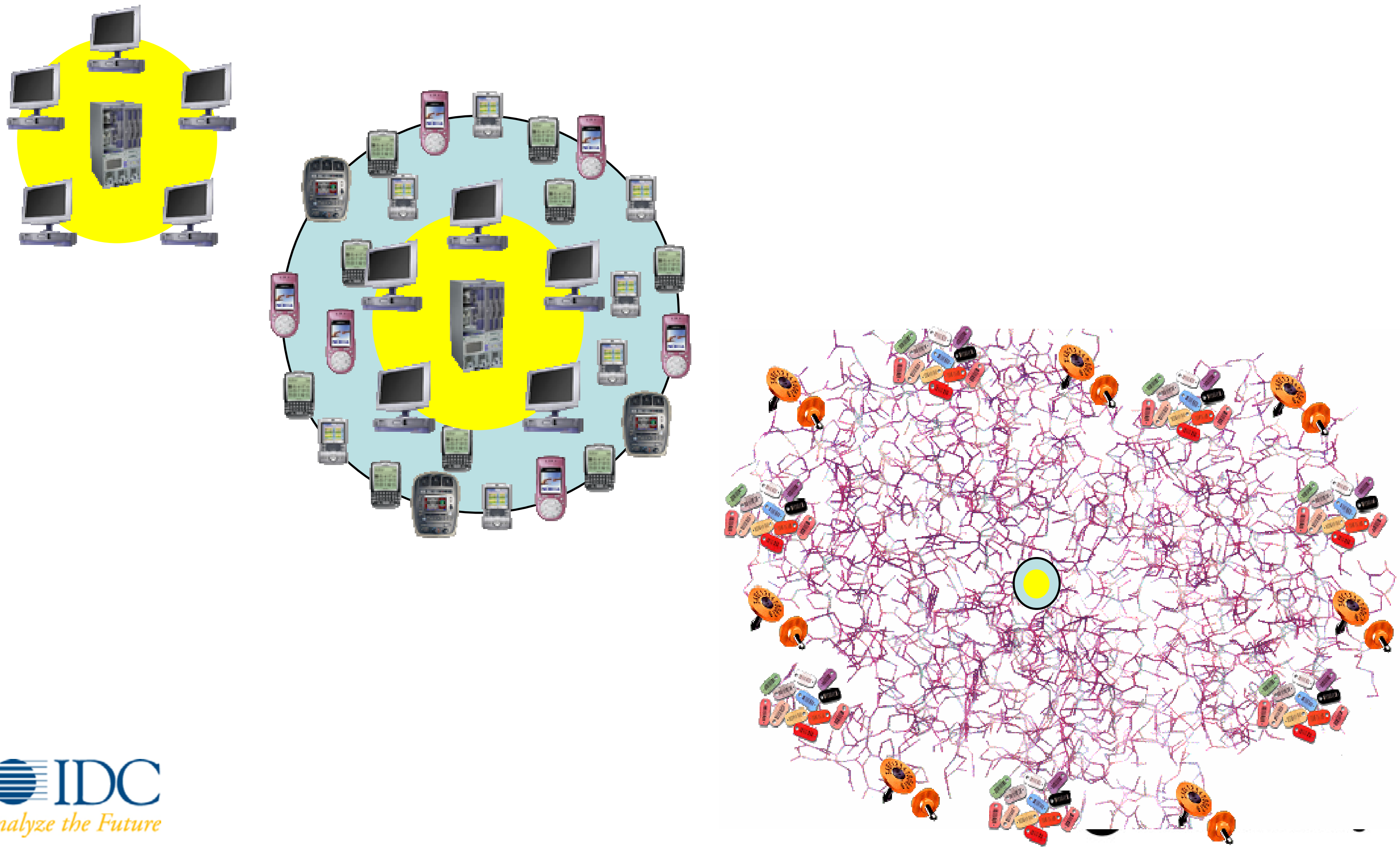
Wireline Attacks Mobile & Cable

Cable Attacks Both Fronts

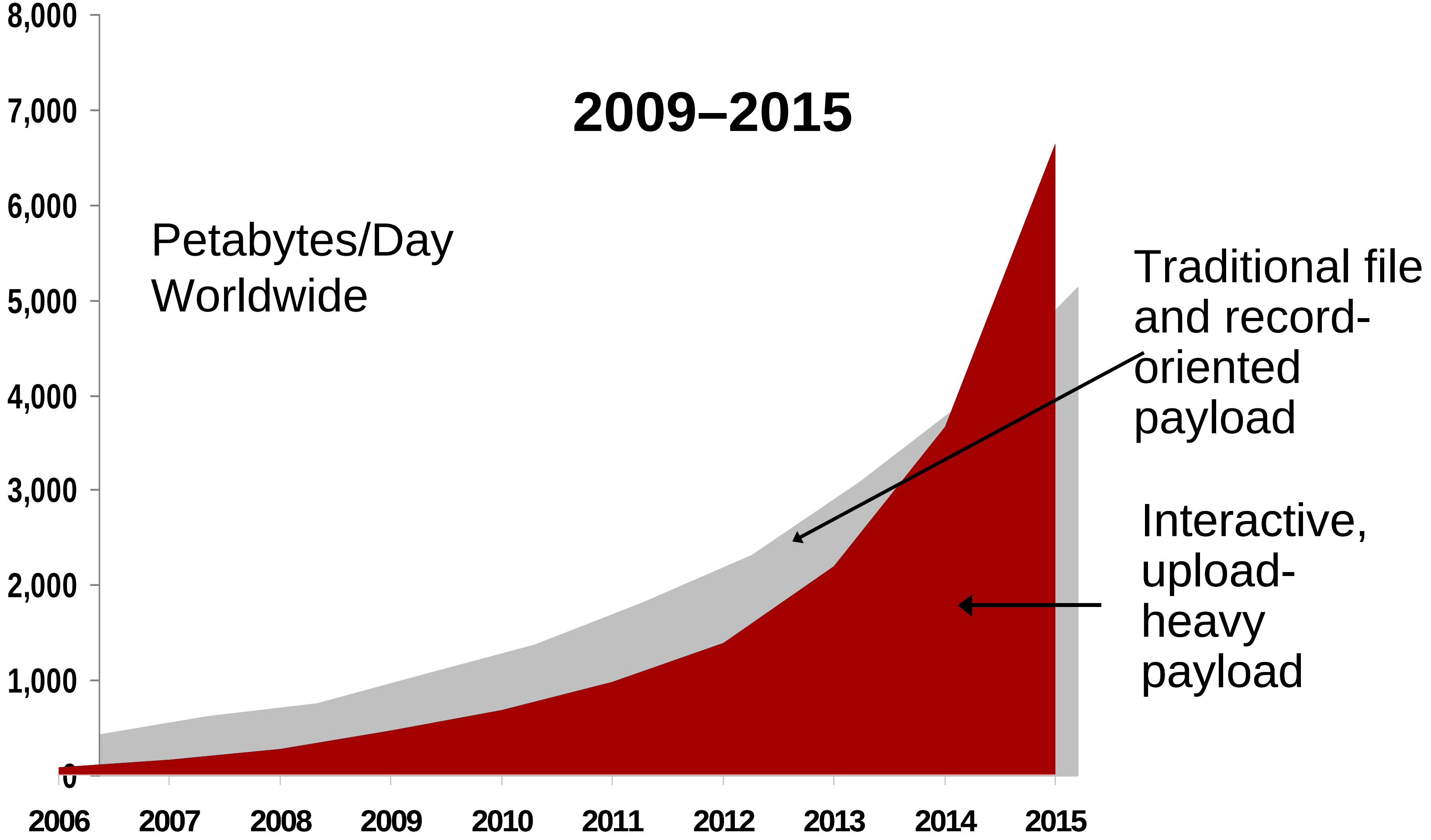
Low-Cost VoIP MVNO's Emerge

Global Crossing

The Exploding Network Edge



New Traffic Characteristics



Source: IDC 2006, GRO estimates

Global Crossing

The FMC Fear Factor

- Fear is based on history, state of network

- Carriers without a significant VoIP deployment will require large CAPEX (RBOC, MNO's)

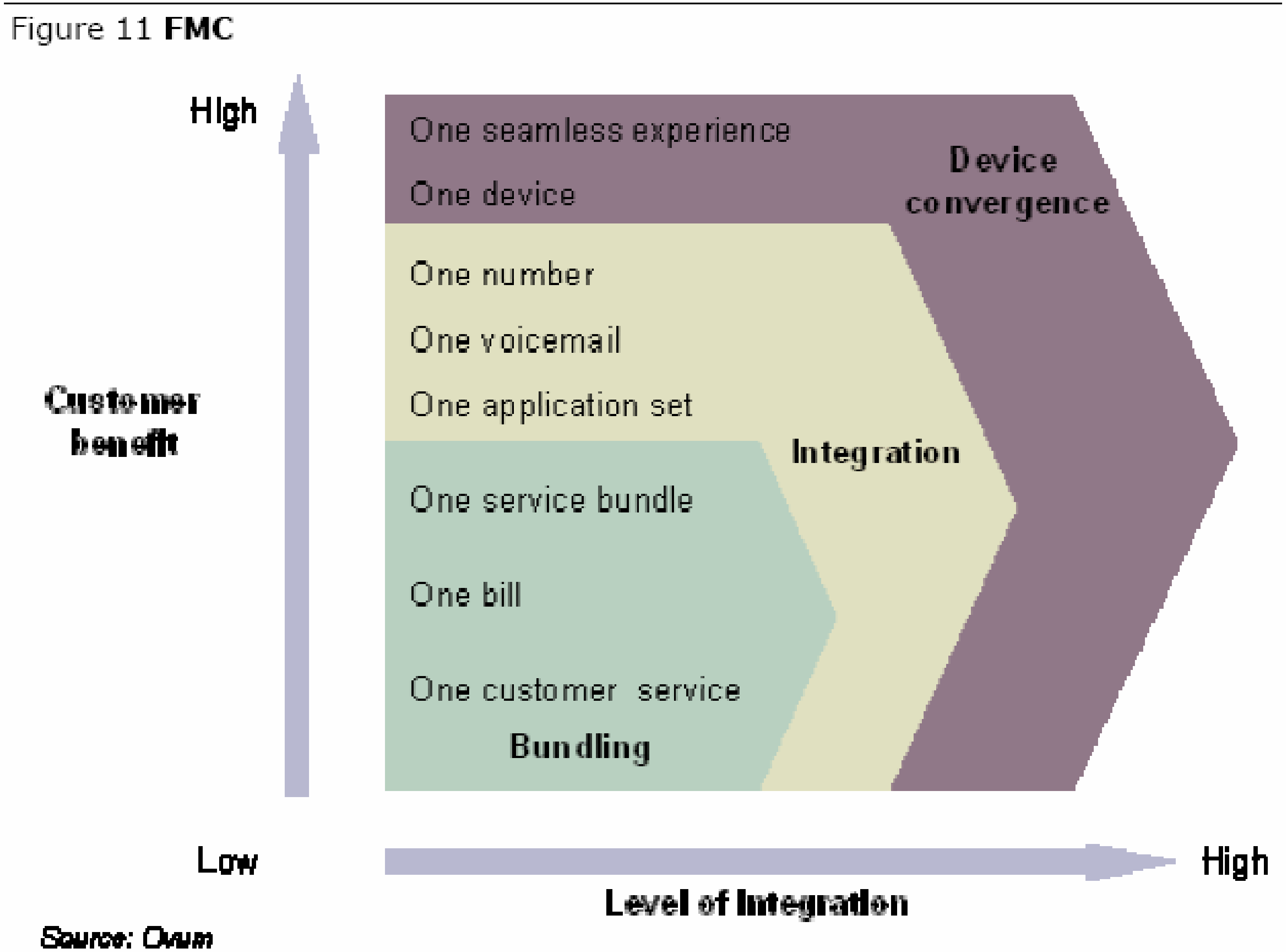
- Pre-IMS SIP Interoperability Problems required great deal of time, technical resources to sort out

- Full IMS/VOIP deployments require significant integration

- Full Mobile IP Architectures (3GPP UMTS R5) will not be deployed for a couple of years, why invest now?

How scary is it to fund deployment of FMC and an IMS Core?

Fixed Mobile Convergence steps



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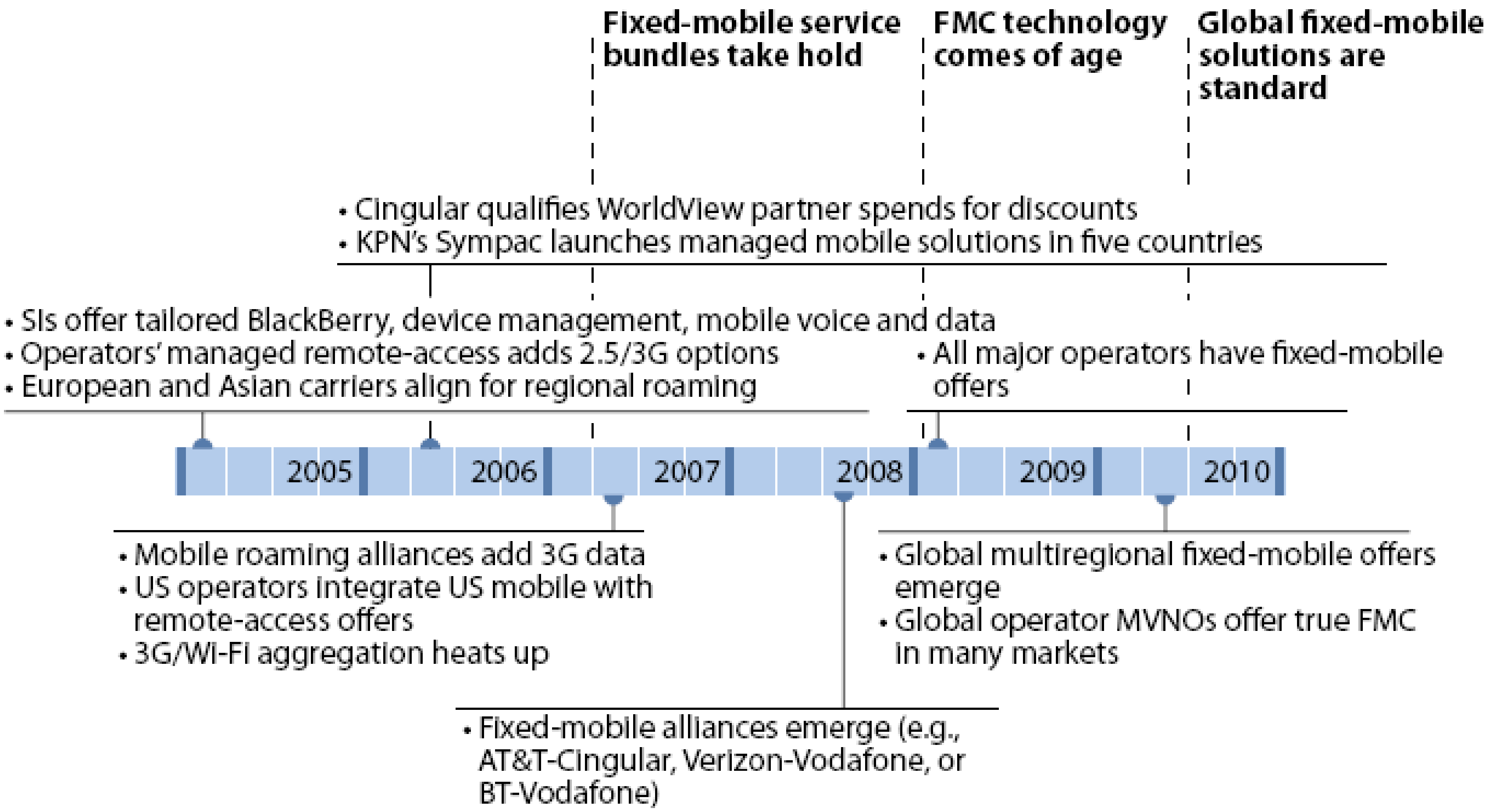
Fixed-Mobile Enterprise services

Figure 3 Enterprise Fixed-Mobile Services Evolution



Source: Forrester Research, Inc.

Extending Our Vision of IP Convergence

IP Convergence

*"Innovation is born from the interaction between constraint and vision."**

Leverage the IMS framework and IP core to deliver presence-based interactive multimedia enterprise and personal services

Extend Wireless VoIP services through network-based converged functionality supported by IMS and dual-mode mobile devices

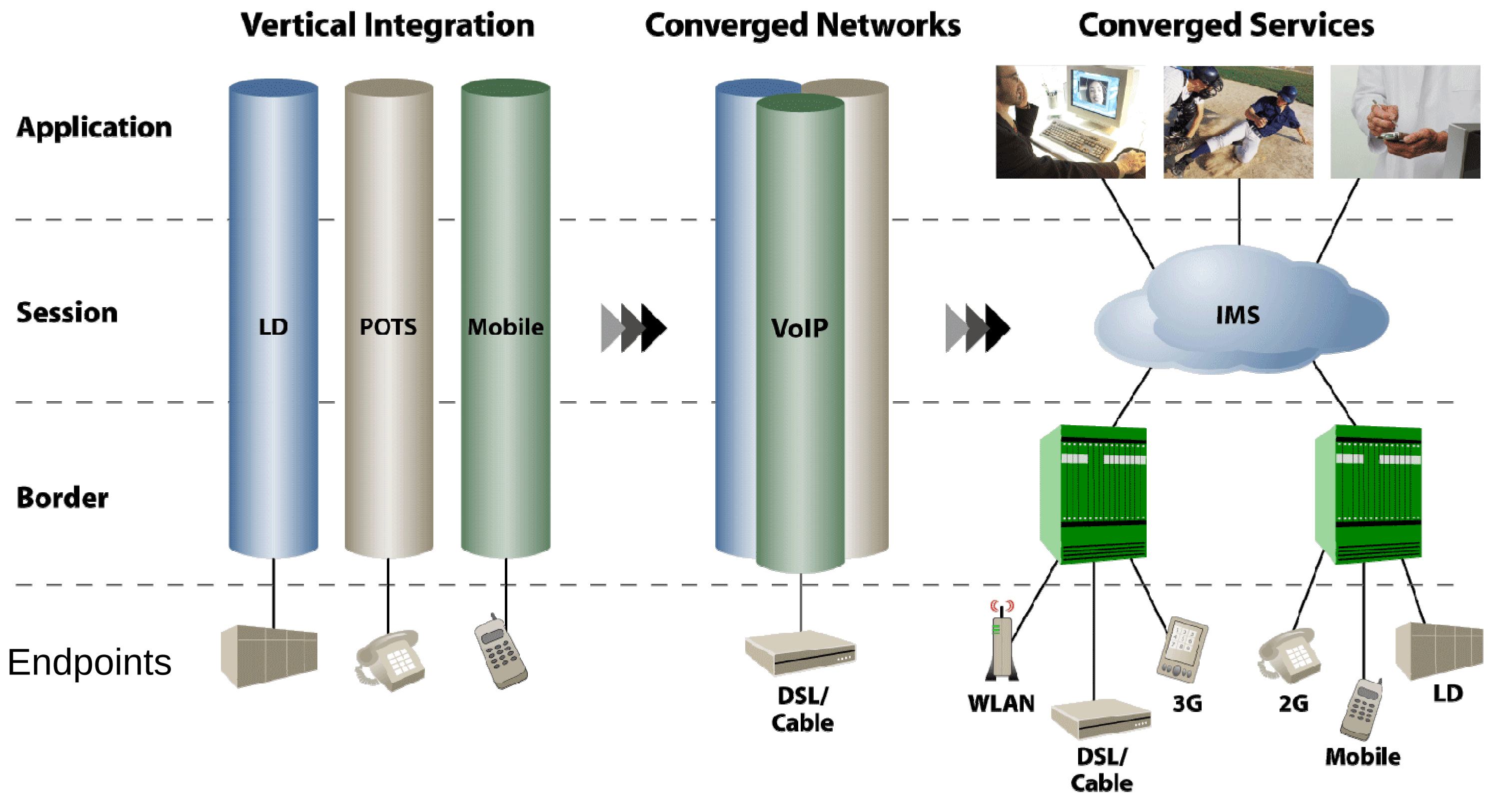
Broaden enterprise IP VPN and VoIP services to include WLAN, etc.

Leverage IP VPN remote access to provide VoIP mobility via WiFi and WiMax

Migrate to a fully converged IP core (MPLS and IPv6). Deliver foundational IP services: VoIP and IP VPN

*Marissa Ann Mayer, VP Search Products and User Experience at Google (*BusinessWeek*, February 13, 2006)

Potential for Fixed Line Carriers to Prosper in Mobile World



New services instantly available across the entire network

Unified Operations

Subscribers & Billing, Routing&Translations, Engineering & Cap Planning

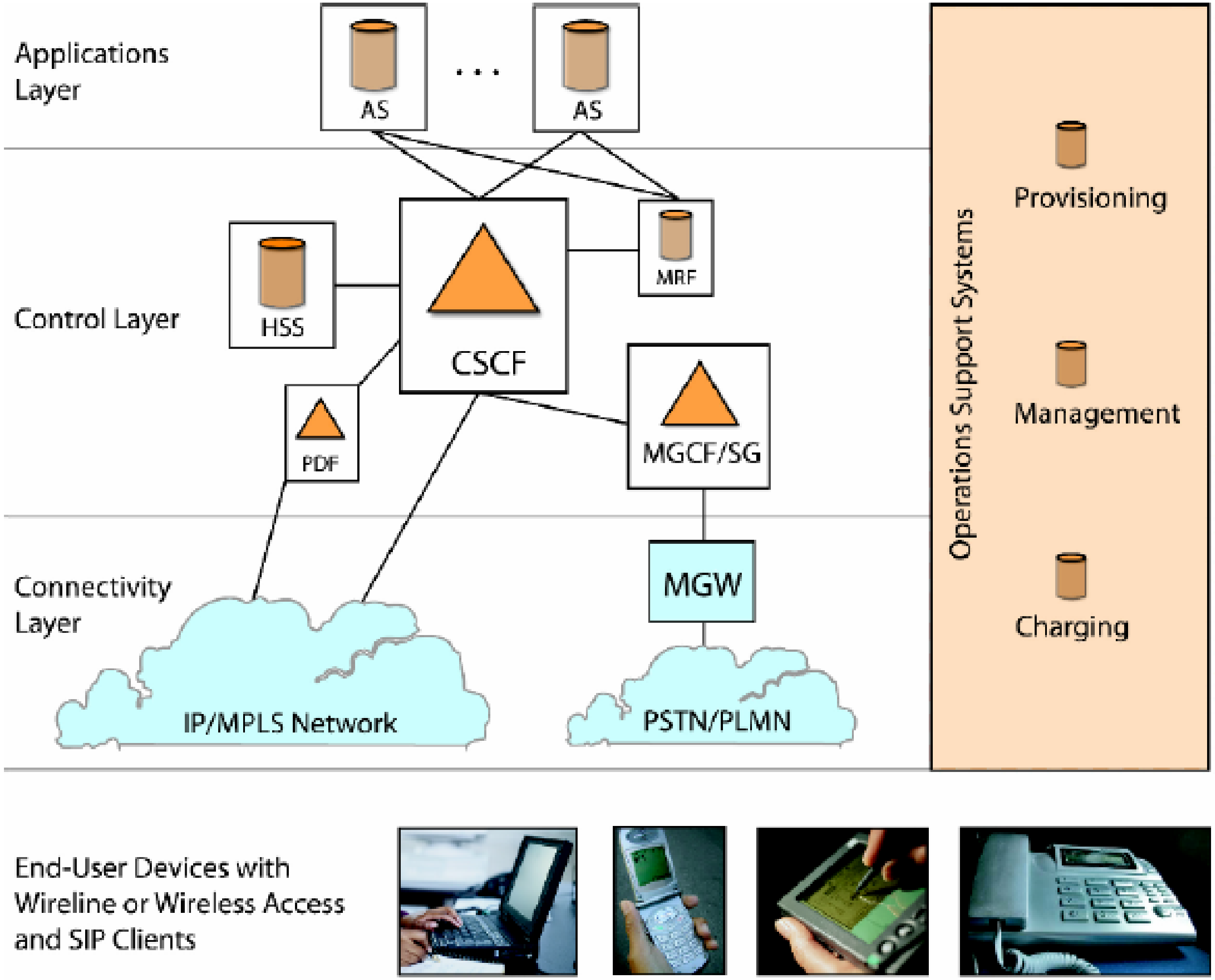
One network, multiple access technologies

Open and standards-based

Consistent user experience

VoIP and Converged Services evolution set the stage for IMS to change current business models

The IMS Architectural Model – A High-Level Overview



Source: In-Stat, 7/05

A Winning Strategy

IP enables IMS, addressing network and user requirements

- Person-to-person real-time IP-based multimedia communications
- Person-to-device communications
- Integrated real-time and non-real-time multimedia communications
- Interaction among services and applications

IMS facilitates FMC

- Centralized service structure and session management
- Reduced cost associated with deploying new applications
- Standardized signaling protocol (SIP) with backward compatibility
- Common application interfaces mean faster time to market of rich services

Mobile Operator Wins

Retain revenues from mobile phone off-net access and intra-company calling

Cable Co Wins

Many are already offering "triple play" service of TV, voice and Internet – mobile is next

Ultimately – the customer wins!

Broadband Wireline Wins

Increase customer stickiness via carrier hosted solutions enabled by presence capabilities

New Entrant Wins

Footholds in new markets with innovative targeted solutions

Contributing source: Norwegian University of Science and Technology

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Thank you!

Global Crossing®