



Cisco New World of Connected Life



Homero Ribeiro
Systems Engineer

Global Environment



Today's Corporate Challenges

Cost reductions

- Server consolidation
- Storage area networking
- Voice, Video and Data consolidation
- IT outsourcing

Productivity increase

- Multimedia applications
- Distributed applications
- WEB based applications
- Application integration

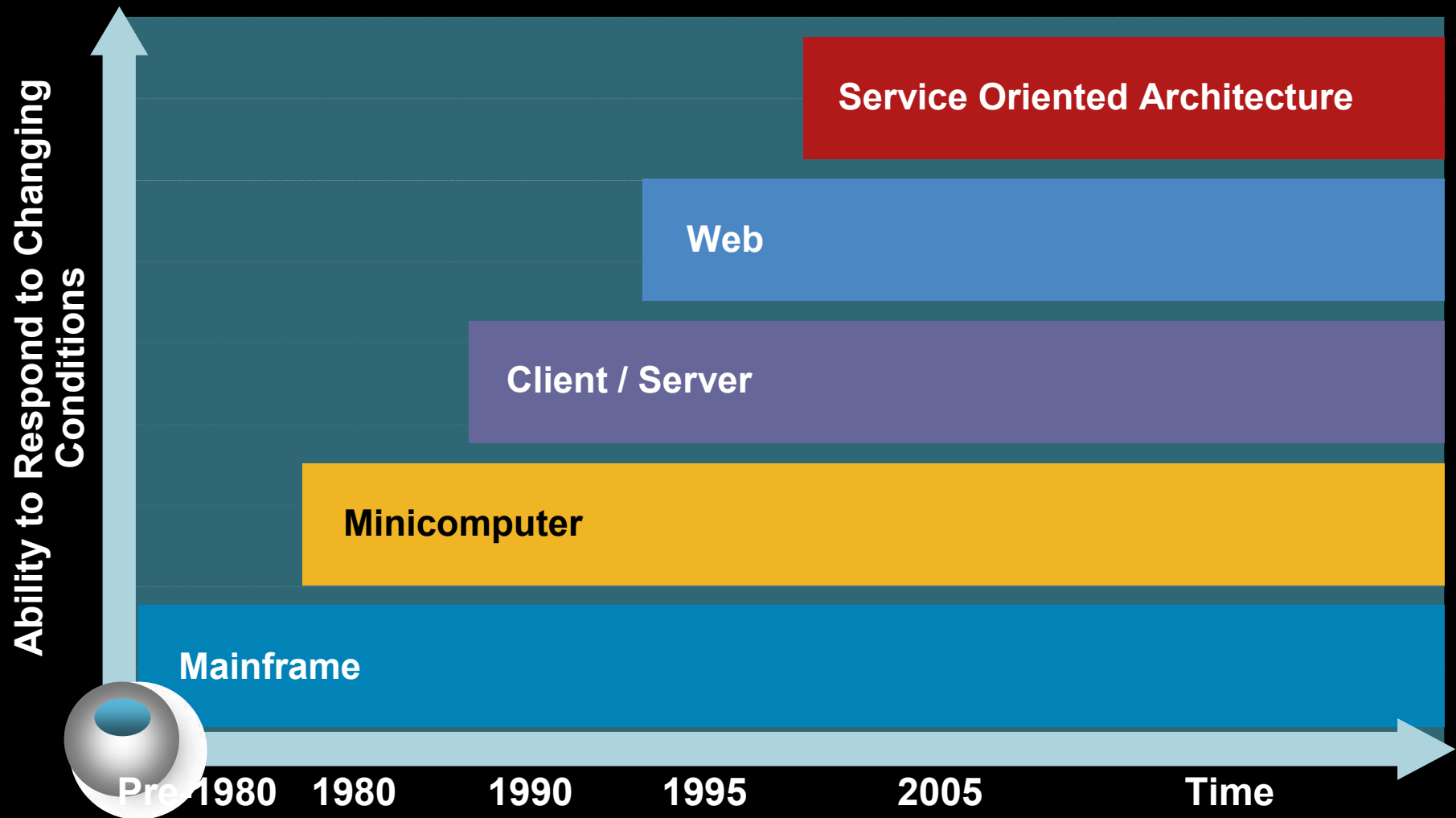
Facing Uncertainties

- Distributed Data Centers
- Business continuity
- Disaster recovery
- Remote storage
- Self-defending networks

Adding value

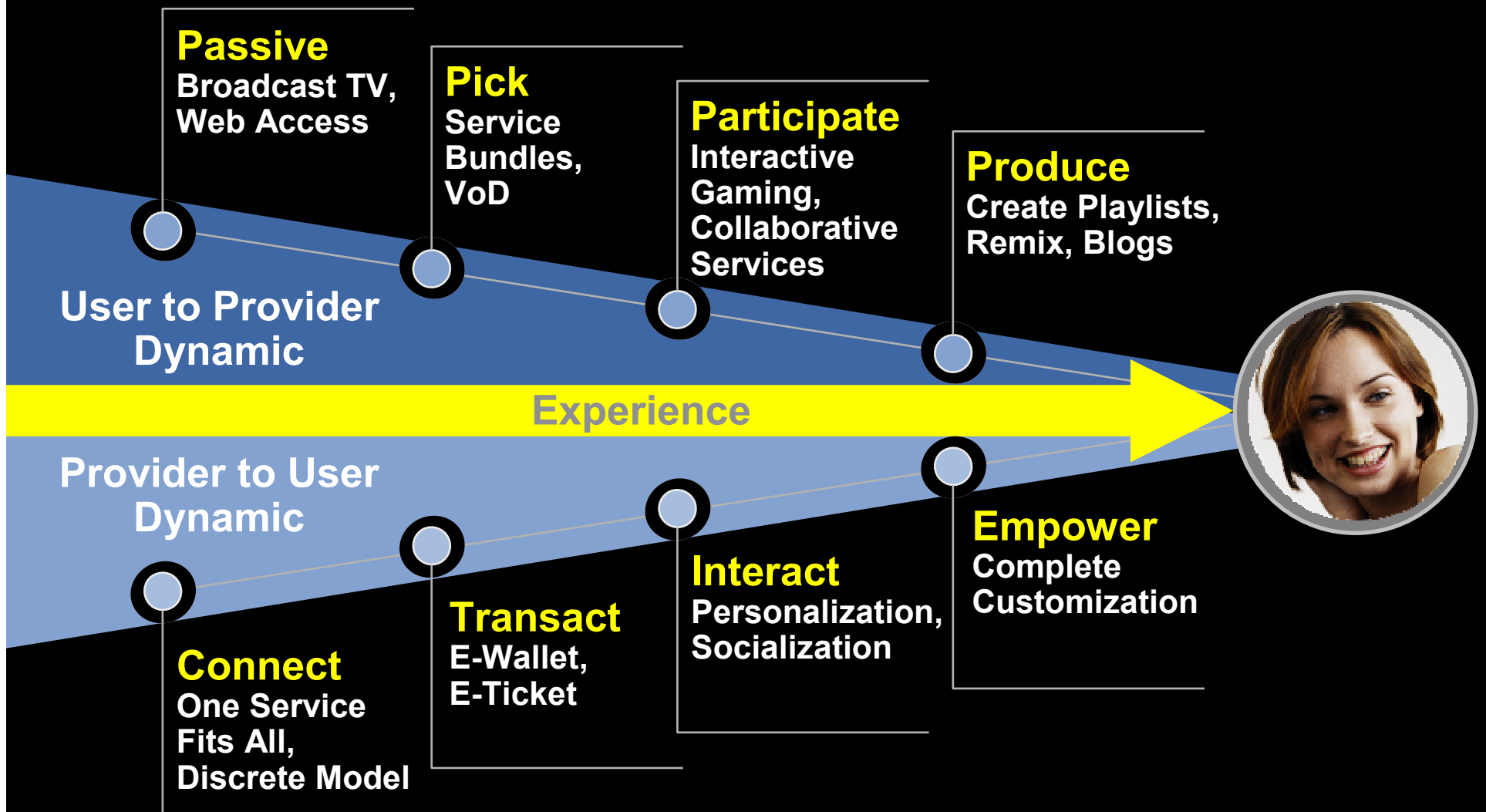
- Customer Relationship Management (CRM)
- Data warehousing
- Service portal

IT Evolution...Increasing Adaptability



The Rise of the Empowered Consumer

Evolutionary Phases of Experience



The Connected Life

Many Experiences from Many Screens



Emerging Connected Life Advancements

Opportunities to Change the Way We Live, Work, Learn, and Play



Banking

- Mobile Banking—Use cell phone to check balance, withdraw funds...
- Alert Technologies—Inform customers of balances, credit limits...



Education

- Podcast Learning—Offer pre-recorded lessons to student devices
- IP Video for E-Learning—Point-to-point video for online instruction



Entertainment

- Mobile Gaming—Play on mobile handsets via downloads or online
- Full-Track Music Streaming / Downloading—Offer complete audio files



Government

- Biometrics for Border Control—Verify face / fingerprint traits
- Location-Aware Applications—Use GPS for fleet / asset management



Healthcare

- RFID—Identify / track patients, clinicians, and medical assets
- Continuity of Care Record—Share patient data between medical entities



Transportation

- Remote Diagnostic Telematics—Give onboard auto performance data
- Airline Self-Service Kiosks—Allow self check-in, seating...

Today's Service Provider Challenges

The Need for Convergence and Optimization

Forbes

Sprint Nextel to Join Forces with Cable Giants

VoIP Providers Take the Market

Telecom Customer Expectations Soaring

BusinessWeek

For SPs, It's All About Scale and Scope

Smart Devices Spawn New Services

In July 1845 Texas formally accepted to be annexed to the United States. Also between the United States and Mexico read James K. Polk ordered General Zachary Taylor to march on the Rio Grande. On April 26, 1846, 500 dragoons surrounded by Mexicans and a but surrendered. Several Americans lost their



The IP Multimedia Subsystem is at a critical turning point. Can folks deliver?

THE WALL STREET JOURNAL.

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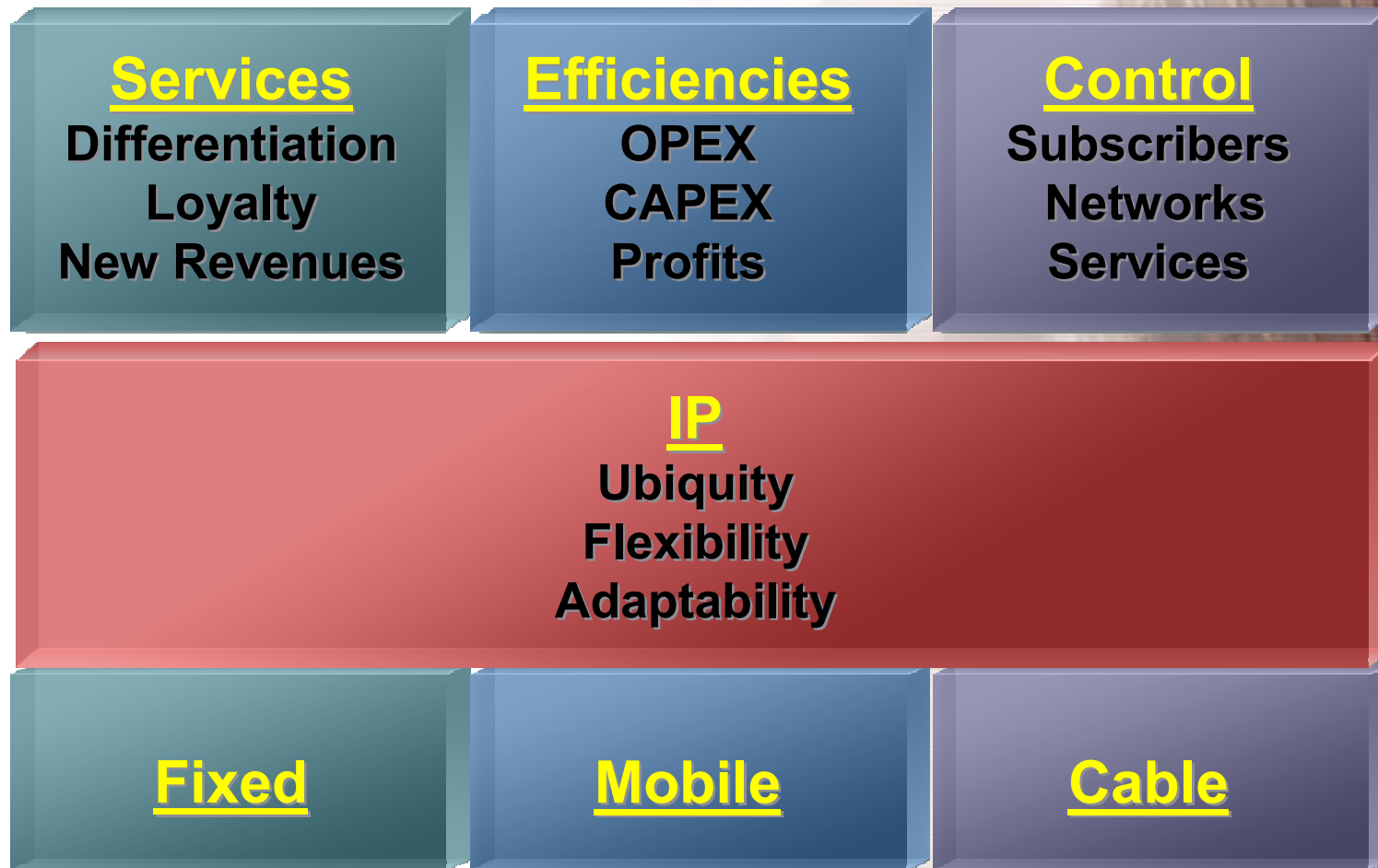
Phone, Cable Firms Rein in Internet Use

FORTUNE

Google, Yahoo, and eBay: Next-Generation Conglomerates?

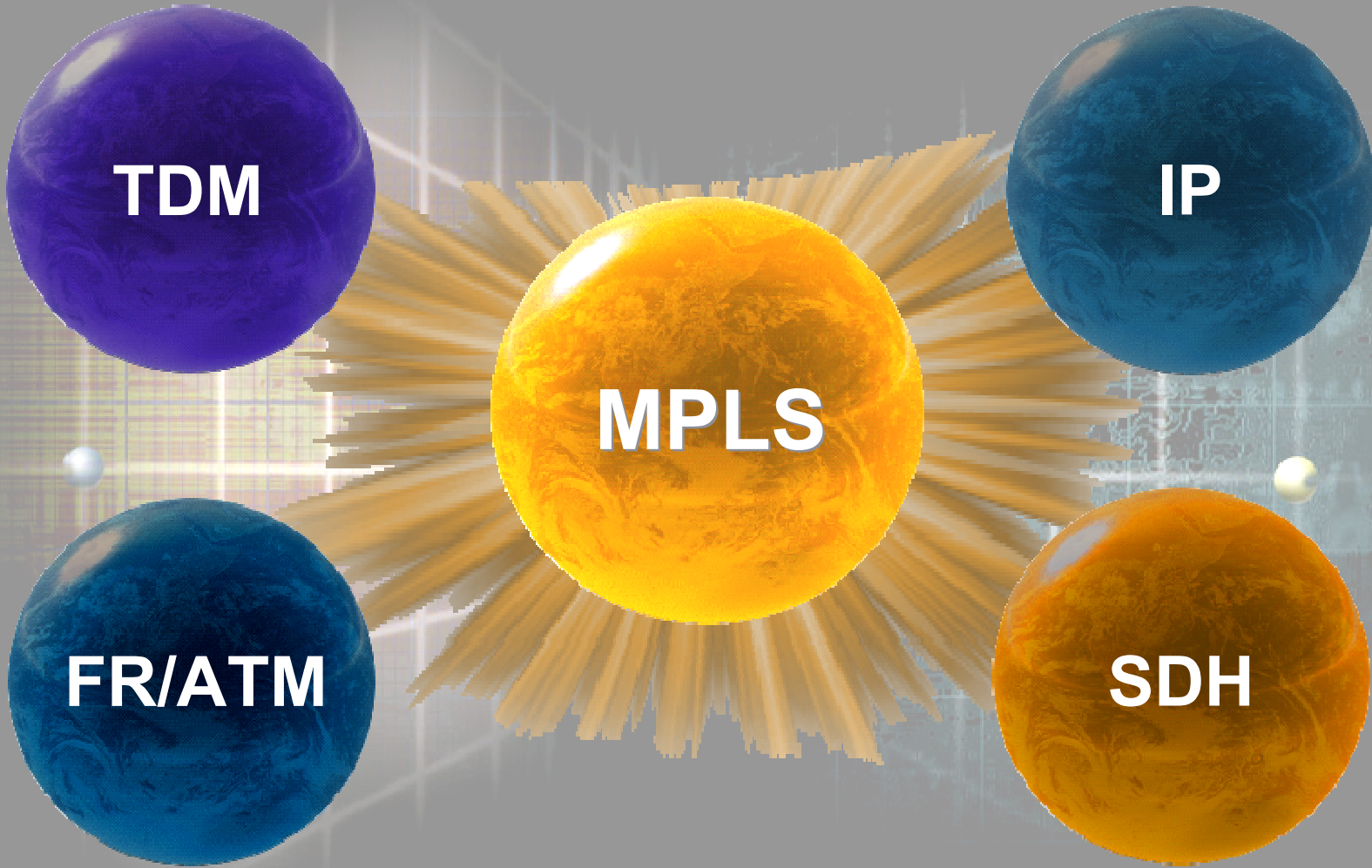
Increased Competition, Reduced ARPU, Services Substitution, Complex Value Chains, and Industry Consolidation

Service Providers are Driving Towards...



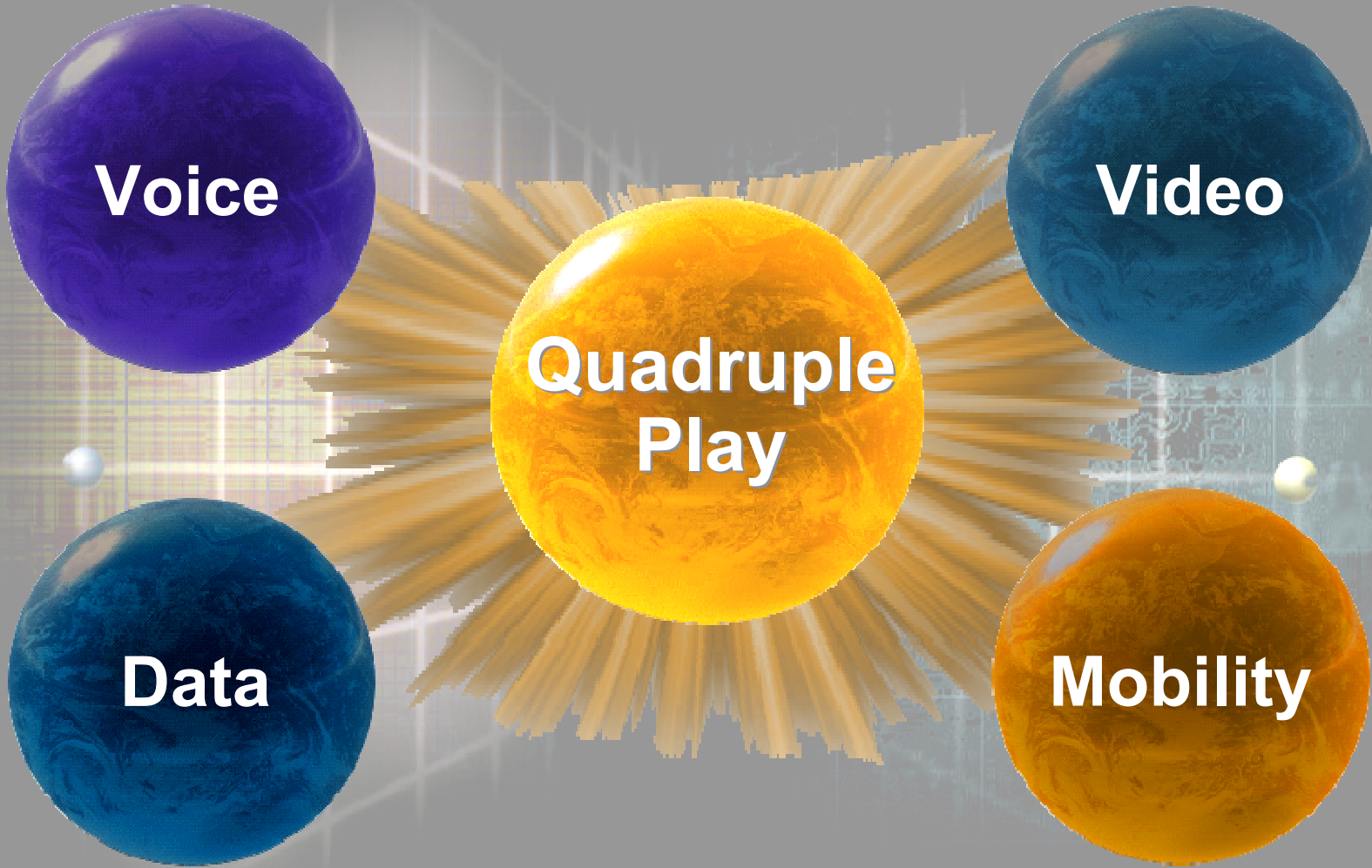
Convergence of Networks

Service Providers need to reduce costs and rationalize networks



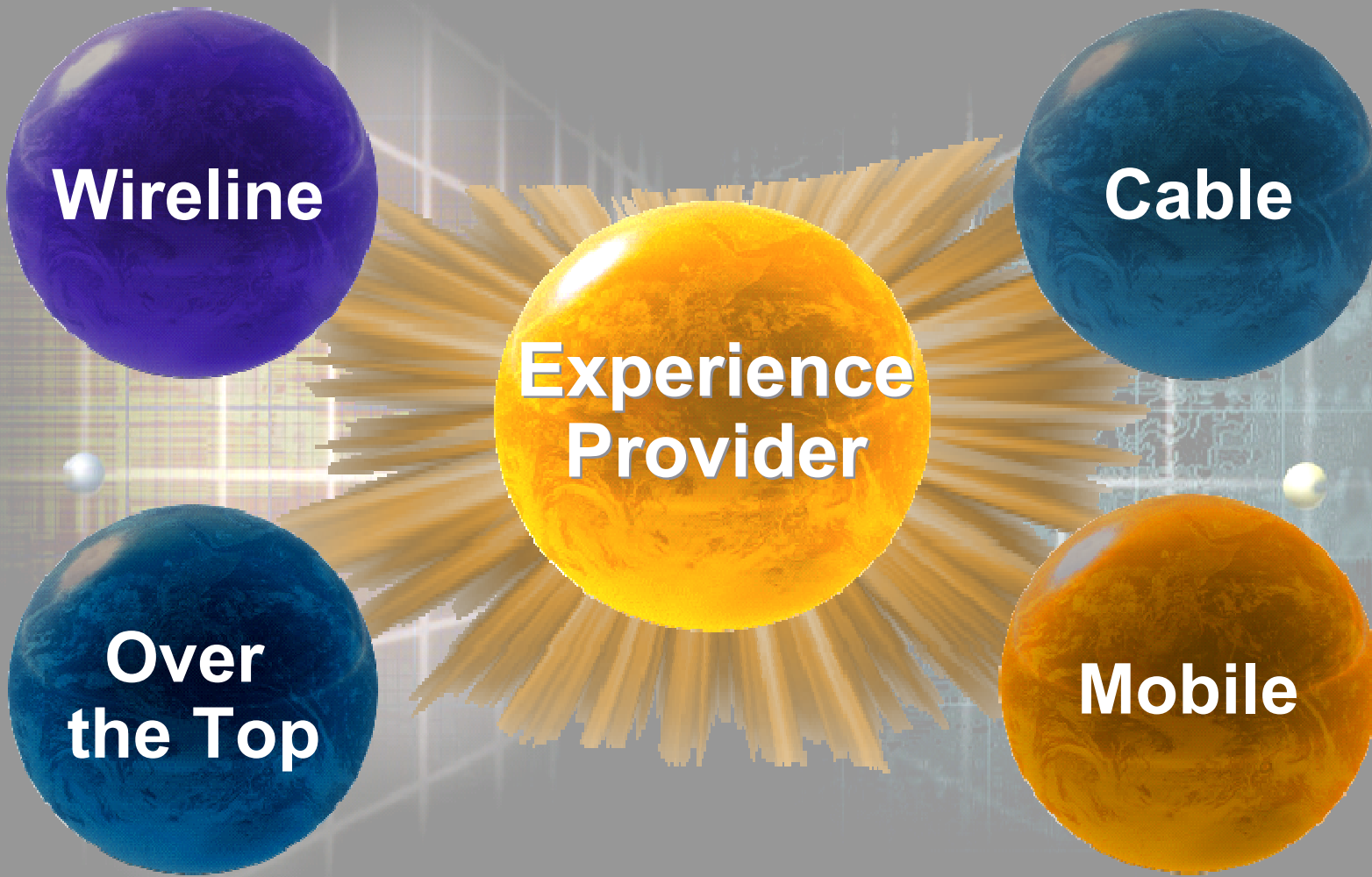
Convergence of Services

Customers are demanding new integrated services



Convergence of Service Providers

Service Providers are no more defined by access technology

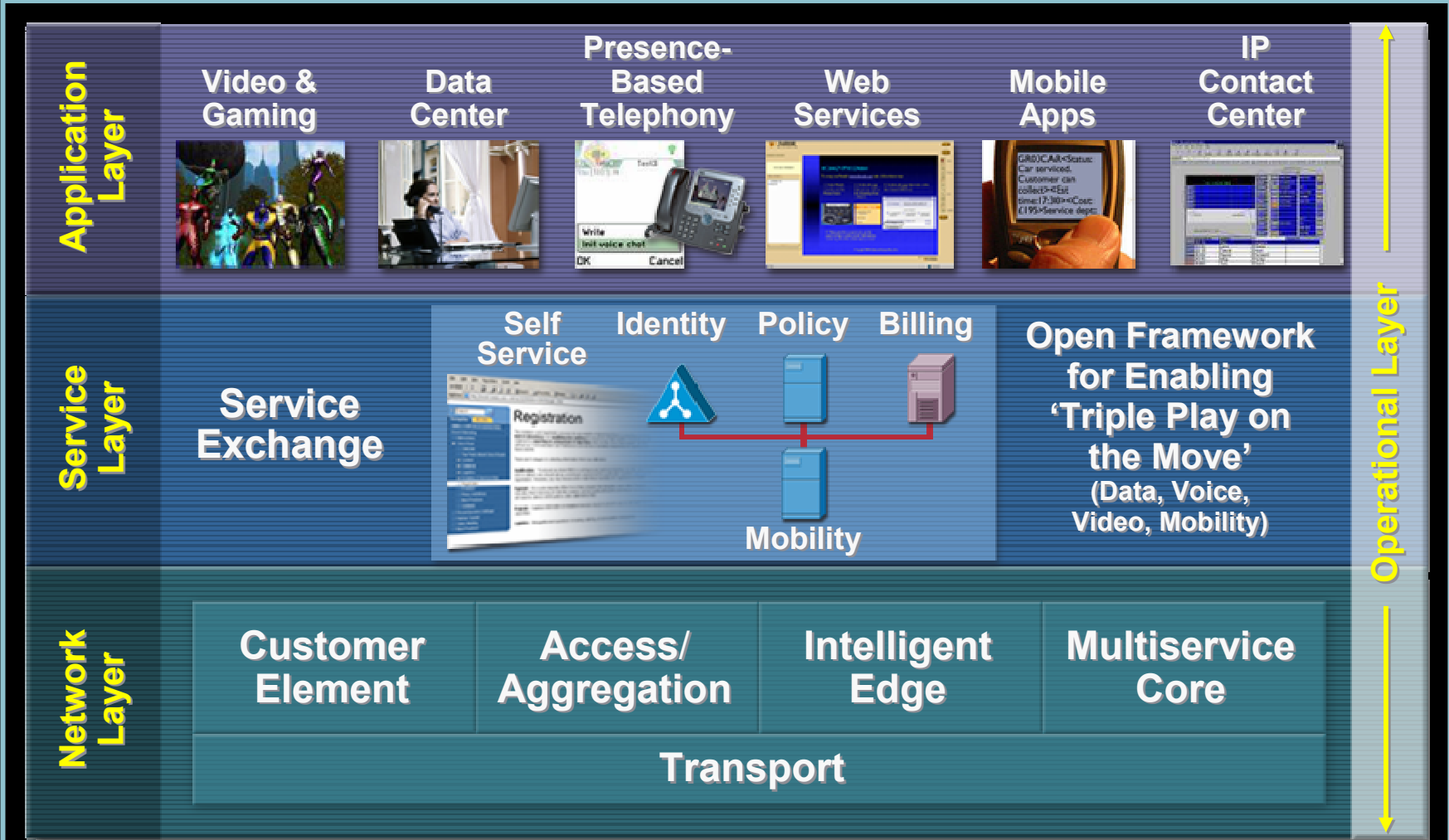


Flexible and Adequate Architecture



Cisco IP NGN Architecture

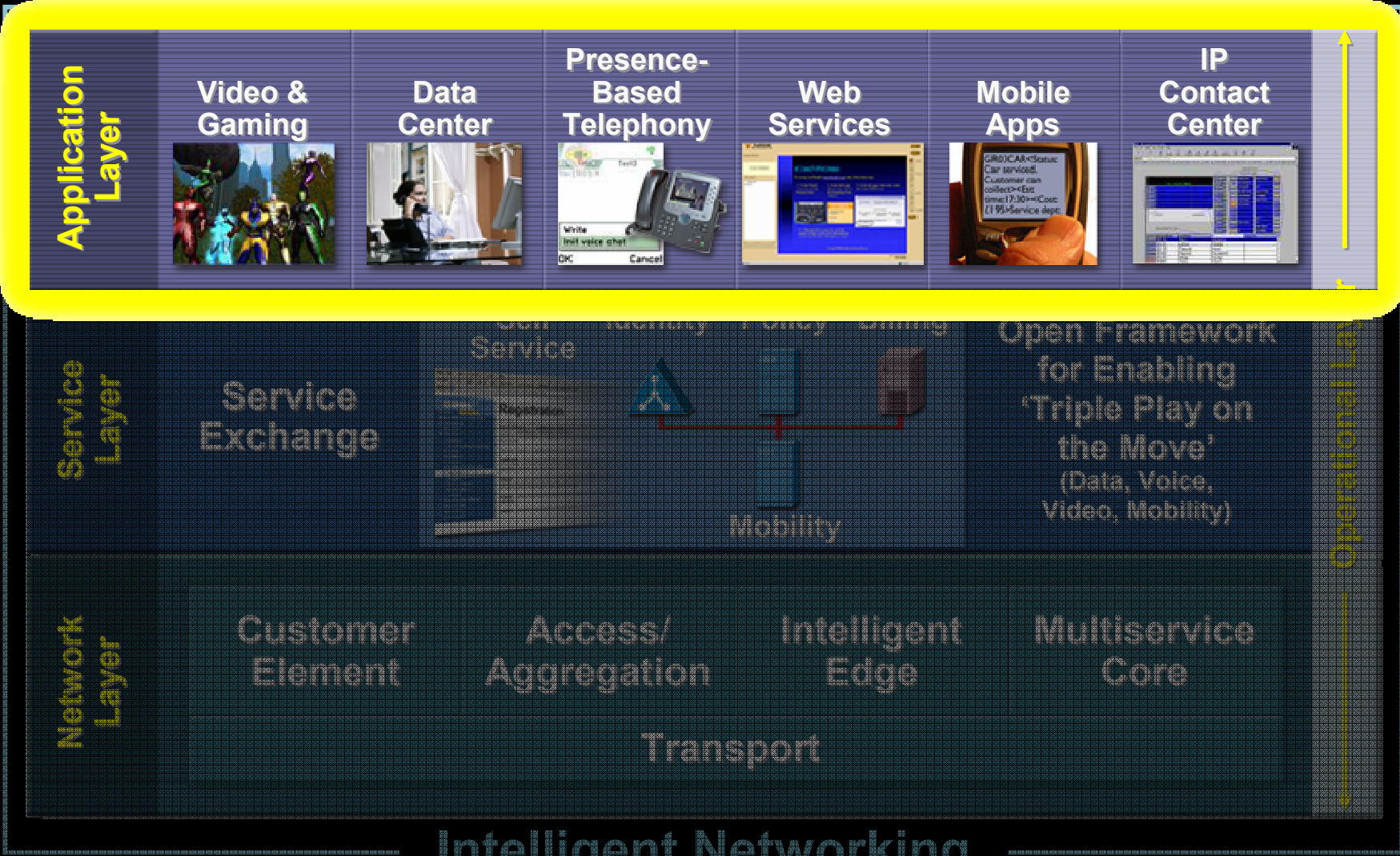
Achieving a Whole Greater Than the Sum of the Parts



Intelligent Networking

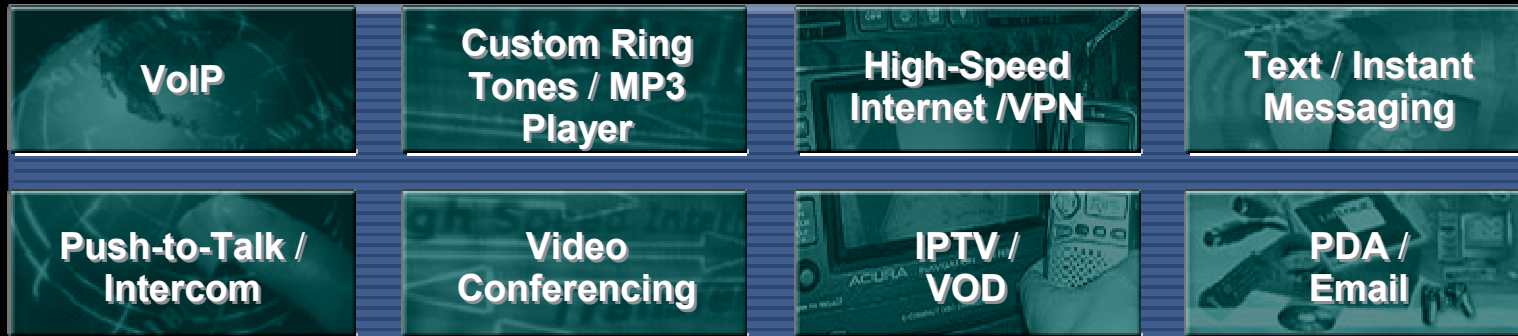
Cisco IP NGN Architecture

Achieving a Whole Greater Than the Sum of the Parts



Device Functionality is Blurring...

For Consumers and Businesses: Any Service, Any Device



Data Voice Video



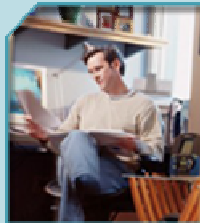
At Work, At Home, On The Move

Creating a Multitude of New Service Opportunities...

Example: Residential Broadband Services

Integrated Networks, Content, and Entertainment Services
to Move Up the Value Chain with the Customer

Teleworker/
Home Business
~\$70/Mo



Wireless Security
~\$30/Mo

Gaming ~\$7/Mo

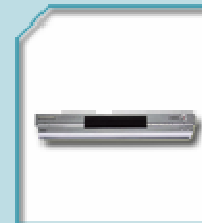
Local and
Long Distance
Voice
~\$40/Mo



Residential
Broadband Access
~\$30/Mo

Home Net ~\$10/Mo

Digital Music
~\$10/Mo



NetPVR
~\$10/Mo

Video and xVoD
~\$50/Mo

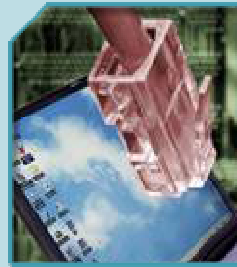
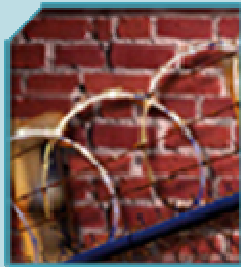
Enabled by a Cisco IP NGN Entertainment Grade System

Creating a Multitude of New Service Opportunities...

Example: Business Services

Integrated Networks and Services to Move Up the Value Chain with the Customer

Managed
Firewall
~\$100/Mo/Site



Metro
Ethernet
~\$75/Mo/Site

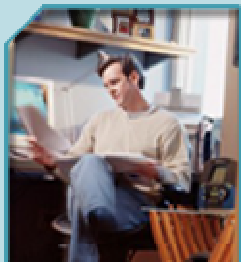


Content
Distribution
~\$50/Mo/Site



Managed IP
Telephony
~\$40/Mo/Site

Remote
Access
~\$75/Mo/Site



Managed
Router
Service
~\$250/Mo/Site



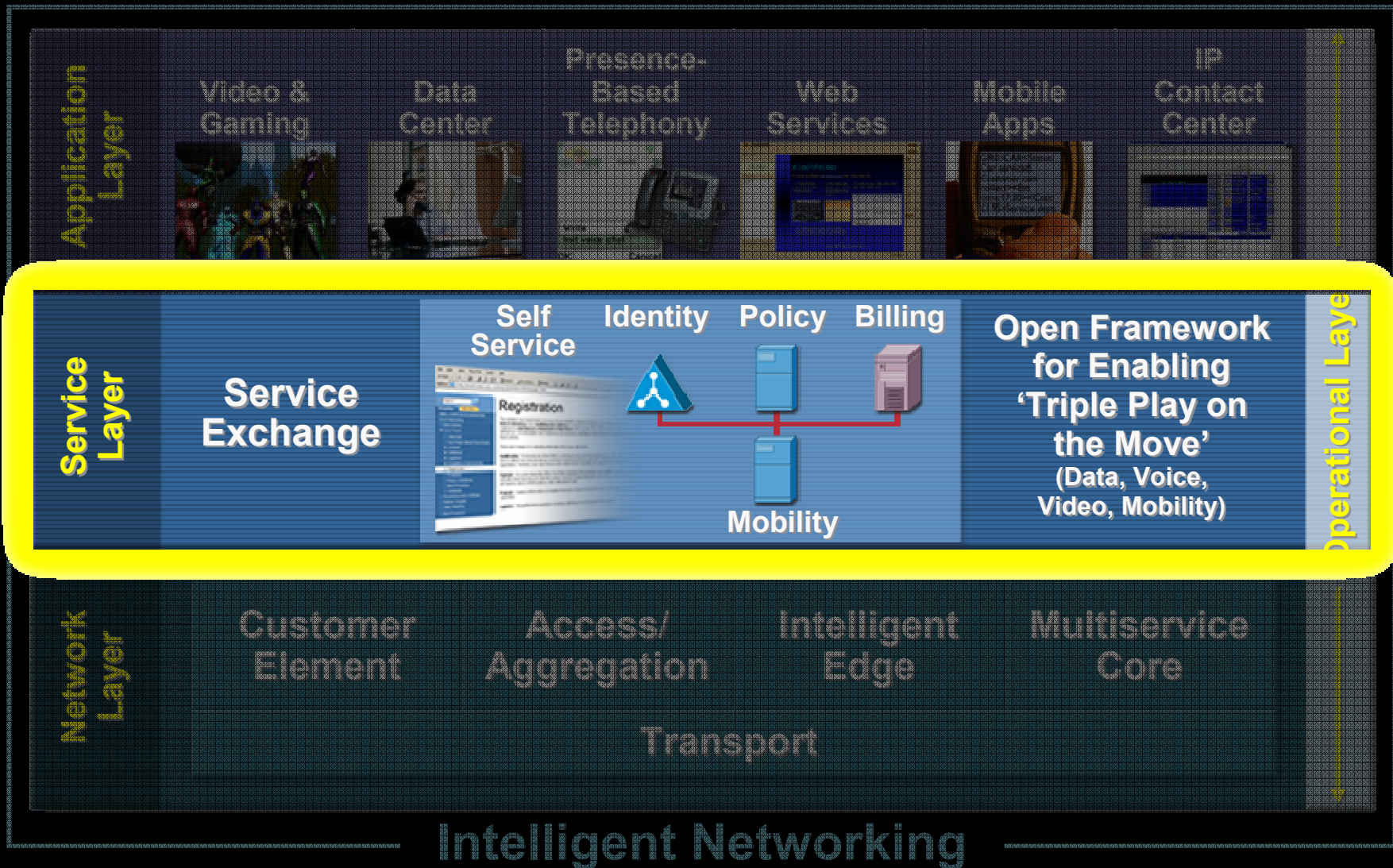
Managed
LAN
Service
~\$13/Mo/Site



IP/MPLS/VPN
~\$150/Mo/Site

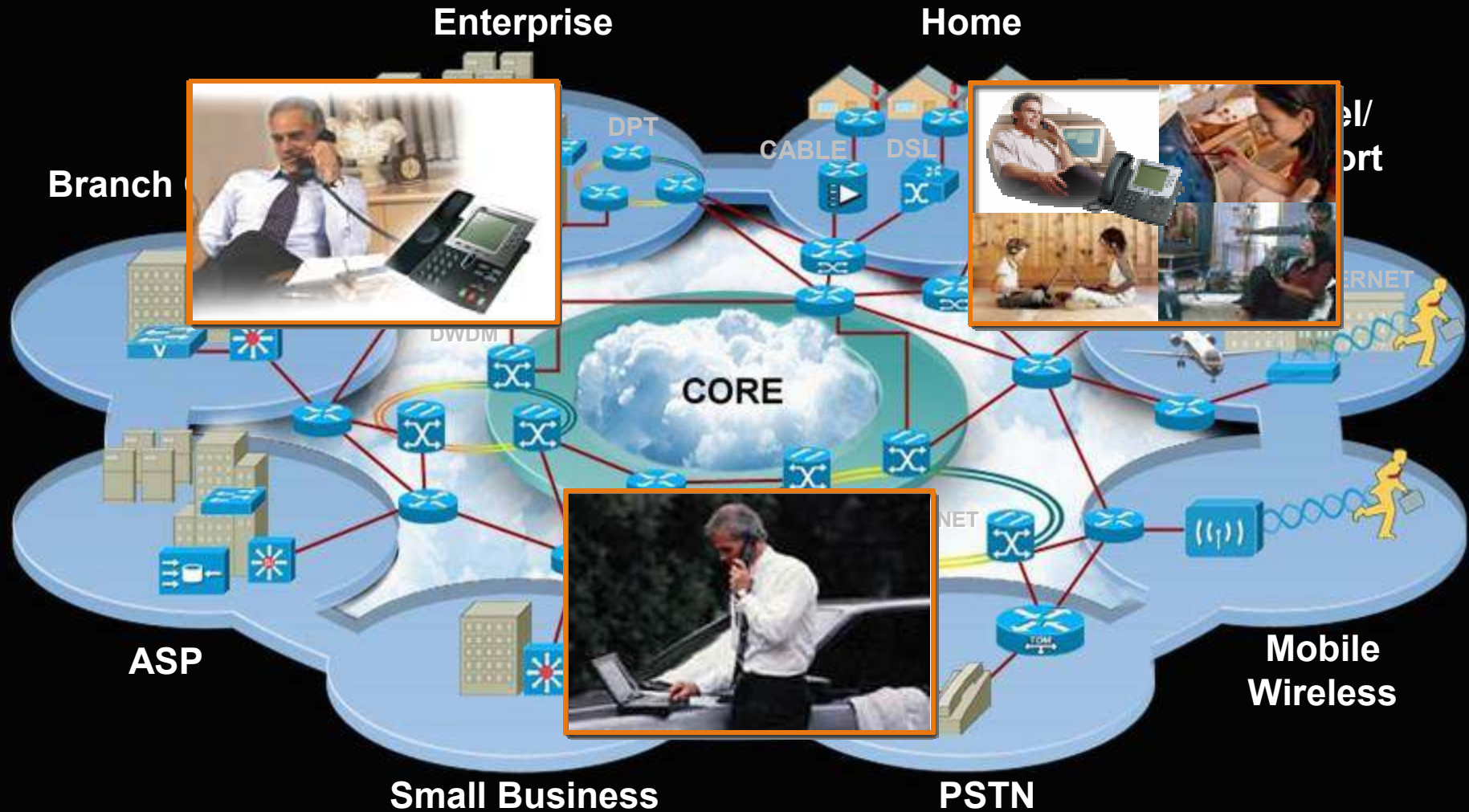
Enabled by a Cisco IP NGN Business Grade System

Service Convergence



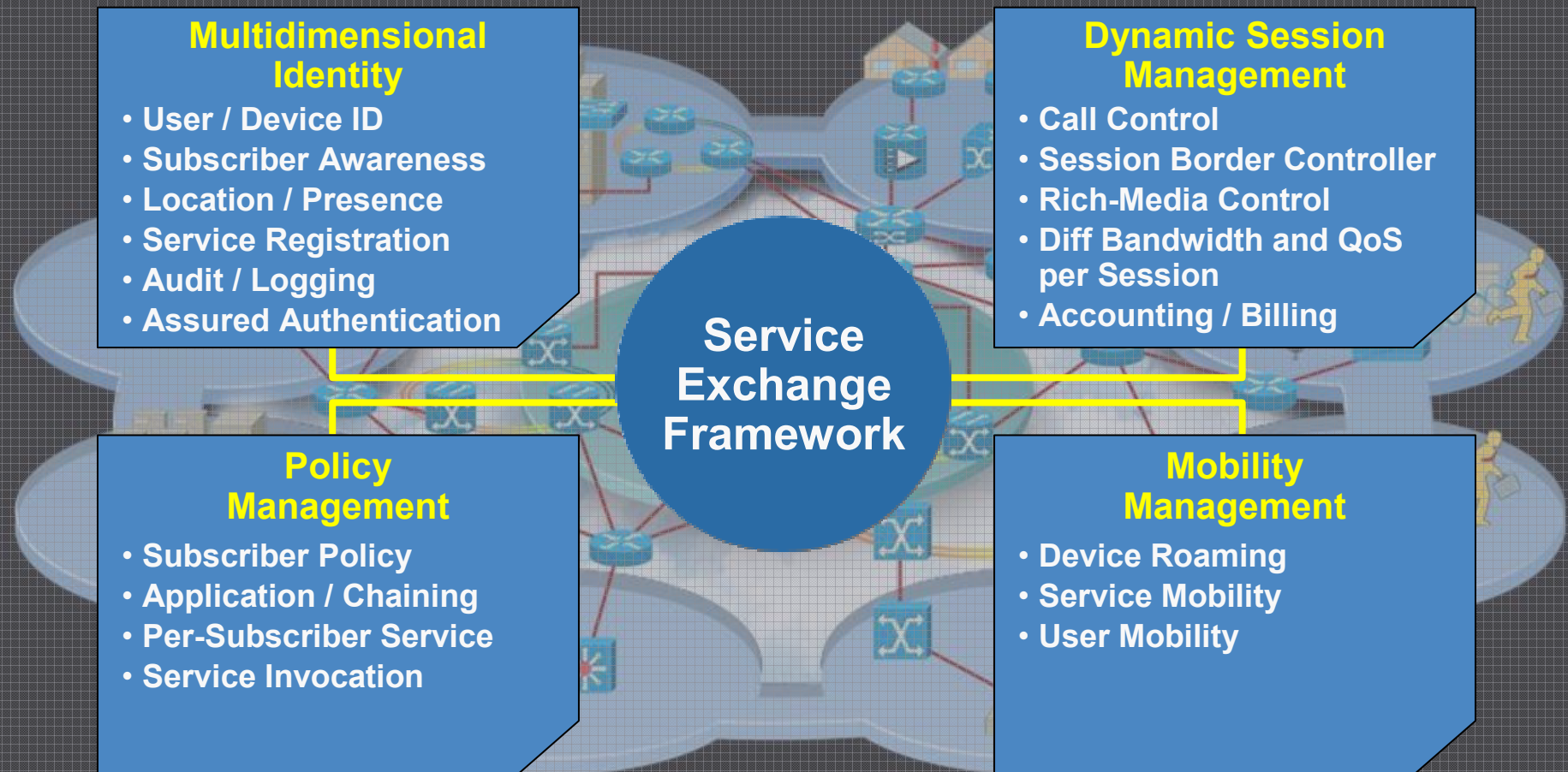
Triple Play on the Move

Providing Means for Service Continuity, Customer Stickiness



Service Exchange Framework

Making 'Triple Play on the Move' Real



Secure and Intelligent Network



Cisco Technology Strategy

Smarter

**“Over 20 Years
of IP Innovation”**

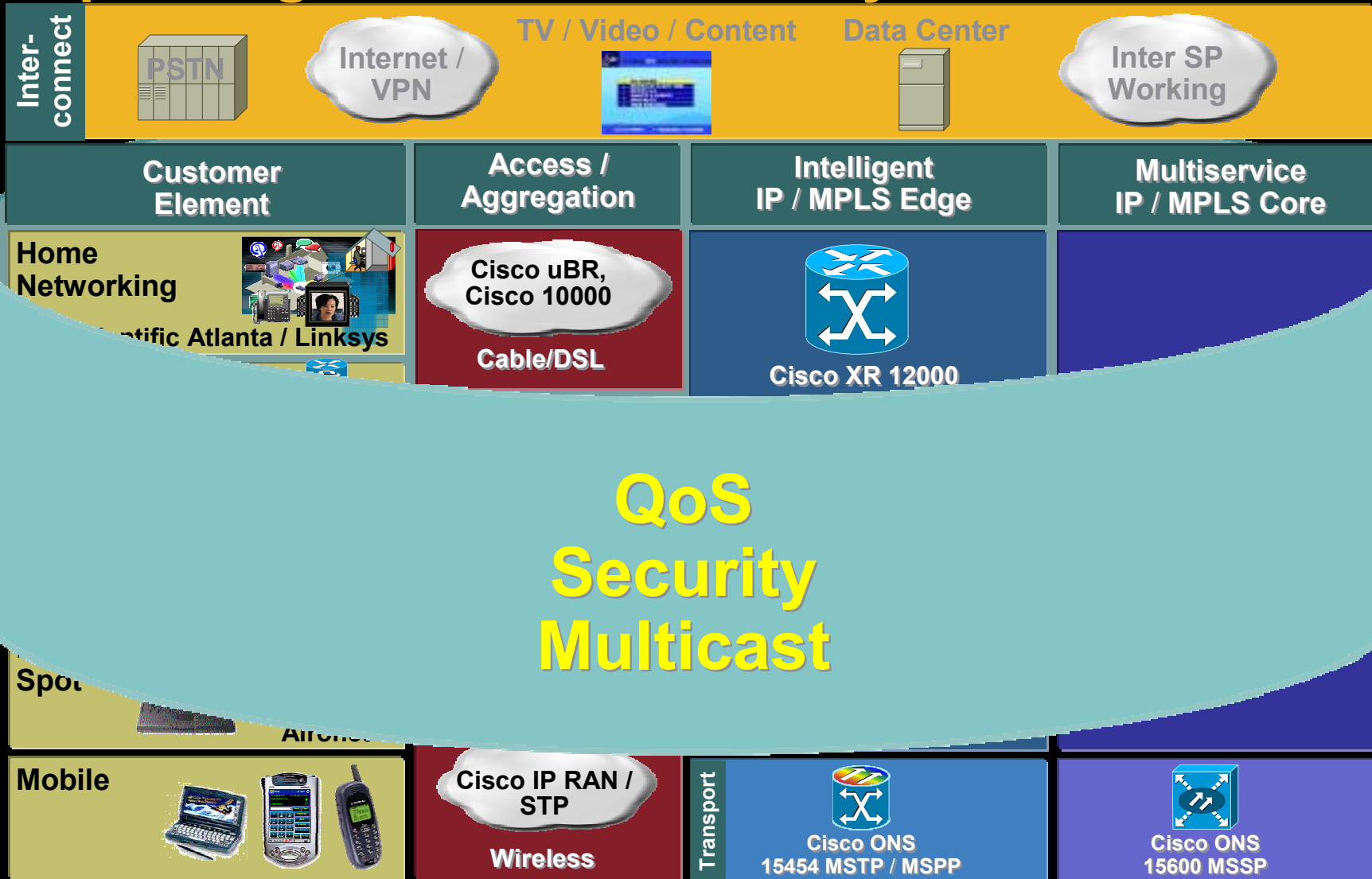
Faster

Lasting

Products → Systems → Solutions

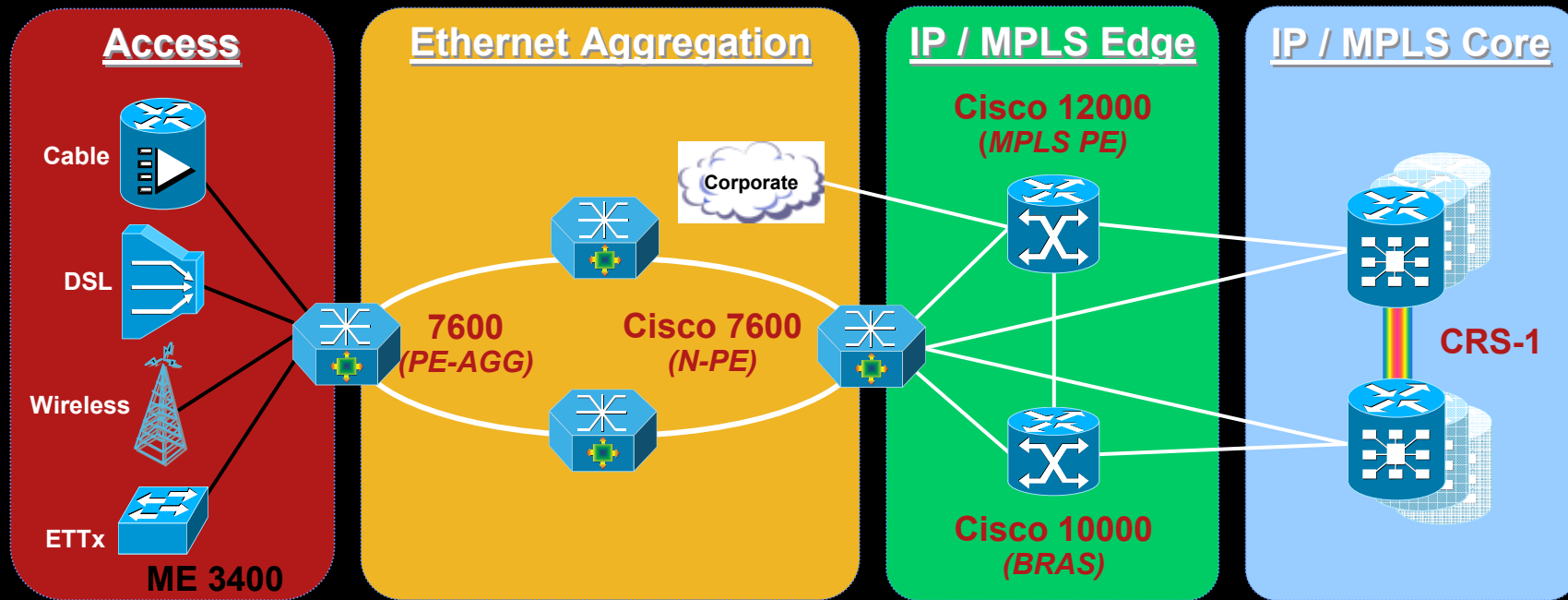
Cisco IP NGN Technology

Spanning Secure Network Layer



Cisco IP NGN Architecture

Innovations in Every Layer of the Network



Access Innovations

- CPE Port Security
- Cell Site Router

Aggregation Innovations

- Residential Triple Play + Business convergence
- Distributed BRAS
- Fixed / Mobile Convergence

Edge Innovations

- Comprehensive MSE Features
- PE / CE Linkage
- BB Sub/Service Mapping

Core Innovations

- IP over DWDM
- Secure Virtualization
- Nonstop HA

Cisco IP/MPLS Portfolio

Cisco 7600



**Triple Play
Service Edge**

Cisco 10000



**Integrated
Broadband
and Leased
Line Edge**

Cisco XR 12000



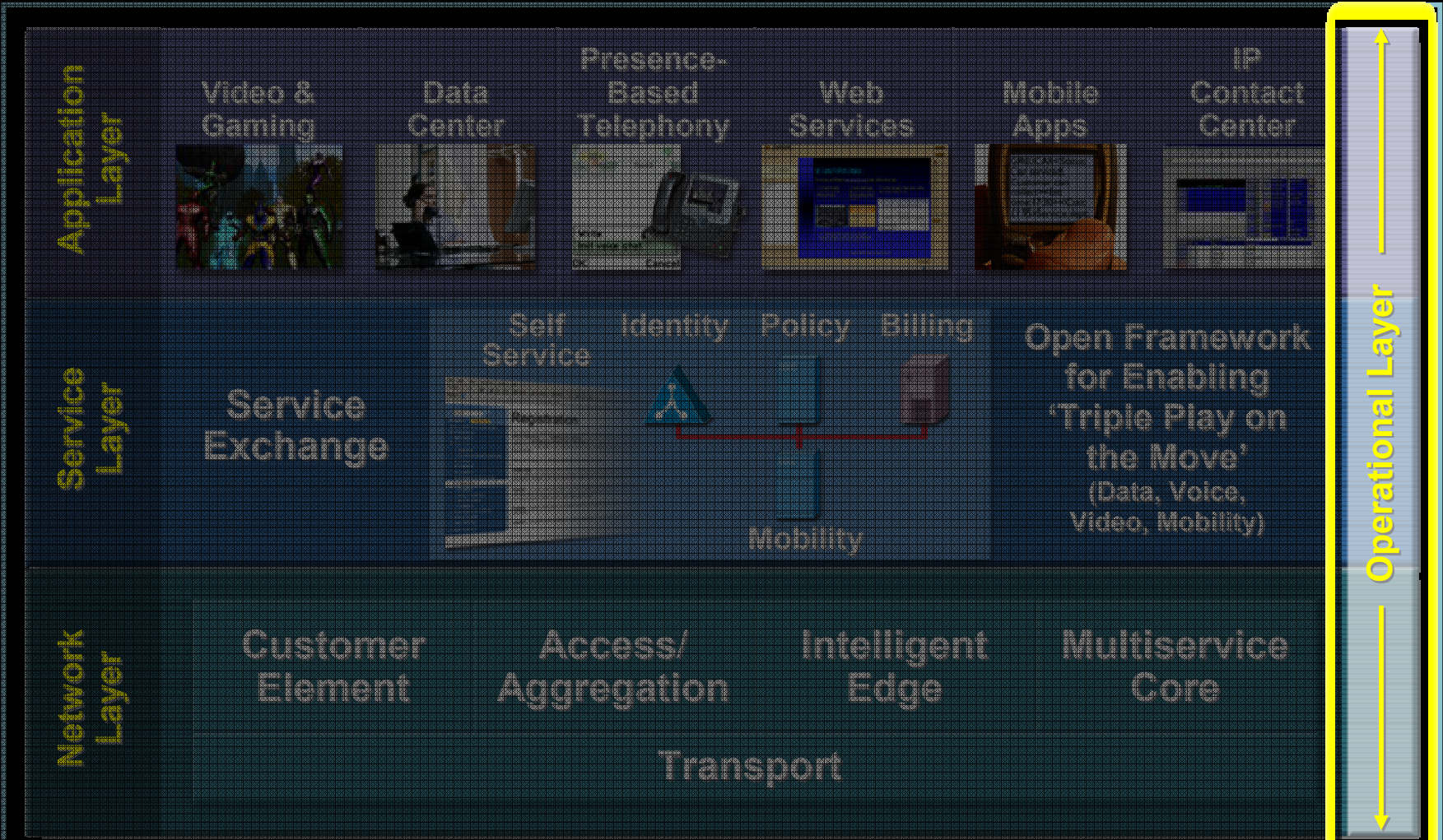
**Multiservice
Edge**

Cisco CRS-1



**Redefining
IP
Communications**

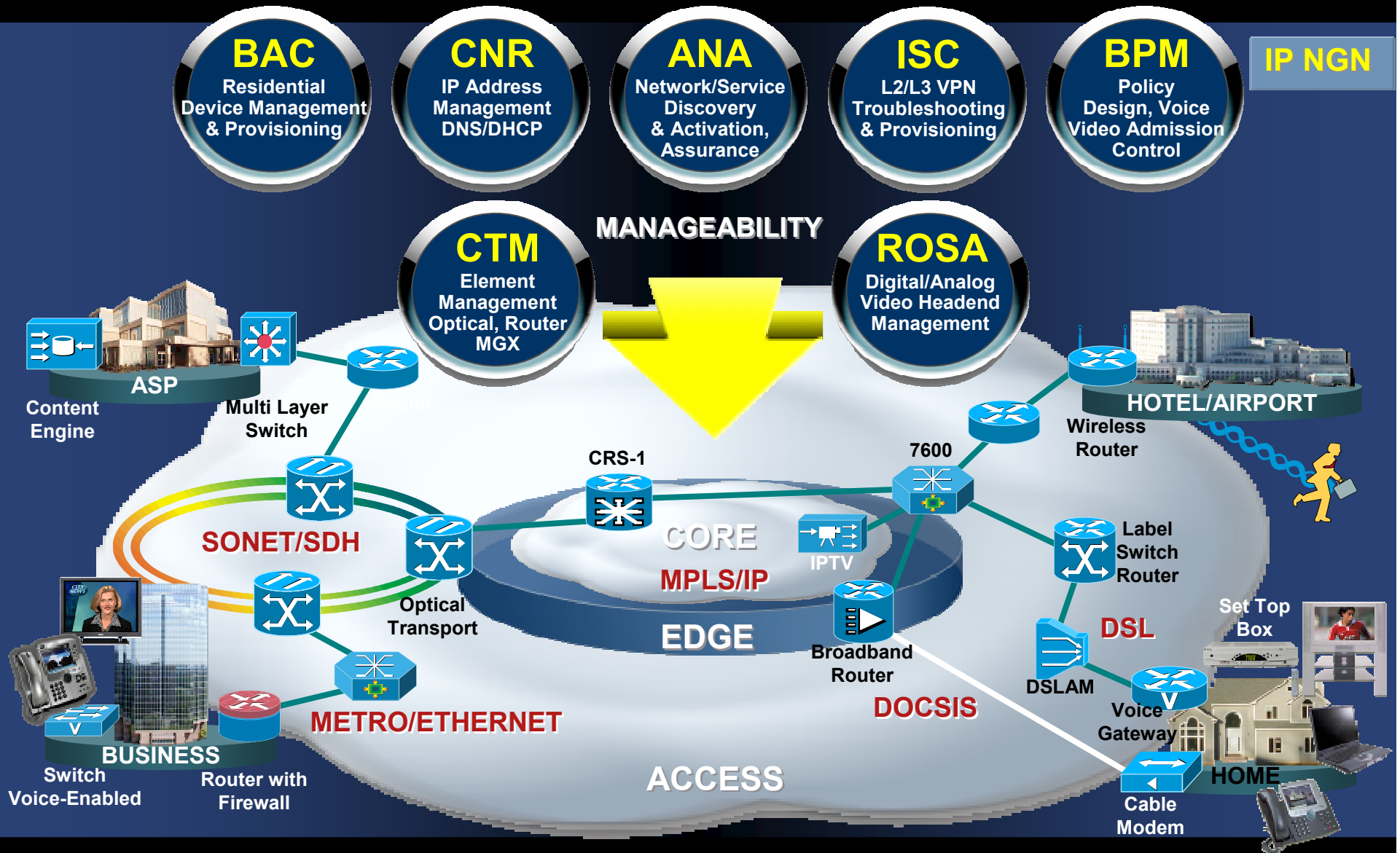
Operational Layer



Intelligent Networking

Cisco IP Next-Generation Network (IP NGN)

Managing Entertainment and Business Grade Systems



Cisco TelePresence Bid Assurance Process

All Orders:

- Booked only by authorized Cisco TelePresence ATP partners
- Include Path / Network Assessment pre-qualification
- Are under Bid Assurance & “New Product Hold” for validation prior to booking



Application Environment in the Connected Home

- Entertainment on Demand
- High definition digital content
- Personalized content on any device at any time
- The home becoming a content source

- Integrated communications for fixed & mobile
- Instant communications with federated user groups
- Presence integrated into voice communications

- Internetworking of multiple device types in the home
- Wireless security
- Wireless enhancements for range and distance
- Different home network media (wired & wireless)

- Remote Surveillance
- Home systems management
- HVAC & lighting control

The Most Extensive Product Line



Scientific Atlanta

The WW Leader in content origination & TV HE

Worldwide Deployments



Key Products



Encoders



Content Management/
Streaming



Content acquisition

S-A Strengths

- Widely Deployed Worldwide
 - > 240 HE
 - > 25 digital STB
- Leader in MPEG4 Encoding (>900 encoders shipped)
- Continued R&D Investments



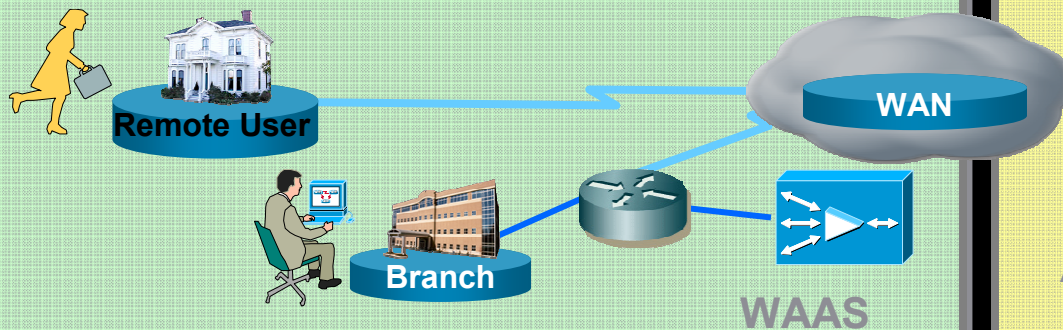
Network Control &
Scheduling Software

Cisco Application Networking Services: Powerful Solution for Your Application Challenges

Branch/WAN Services

Wide Area Application Services

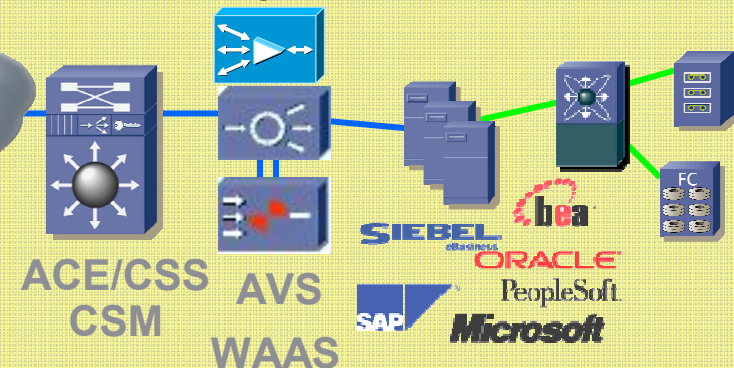
- Complete WAN optimization, application acceleration and WAAS
- Deployed in branch + data center
- Enables branch server, storage and backup consolidation



Data Center

Application Delivery

- Highly scalable server switching and load balancing
- Data center-based application acceleration
- Maximum application availability and time-to-service



Cisco Self-Defending Network

A systems approach leveraging the Network Platform



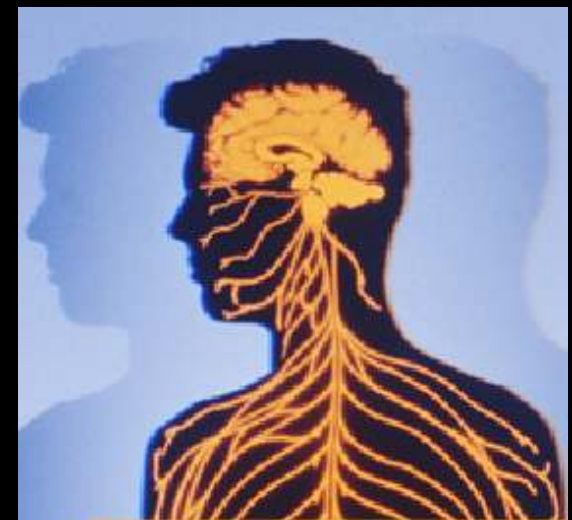
Integrated

Enabling every element to be a point of defense and policy enforcement



Collaborative

Collaboration among the services and devices throughout the network to thwart attacks



Adaptive

Proactive security technologies that automatically prevent threats

Cisco Mobility Portfolio

Unified Advanced Services

Cisco Wireless Location Appliance, Advanced features of Cisco WCS, Cisco SDN, VoWLAN phones.

World-Class Network Management

Cisco Wireless Control System (WCS)

Network Unification

Cisco 4400, 2000 Wireless LAN Controllers and Cisco Catalyst 6500 Series Wireless Services Module (WiSM), Wireless Controller Module for ISRs.

Mobility Platform

Cisco Aironet Access Points: 1500, 1300, 1240AG, 1230AG, 1100AG, 1000

Client Devices

Cisco Compatible Client Devices



**Cisco
Self-Defending
Network**

