

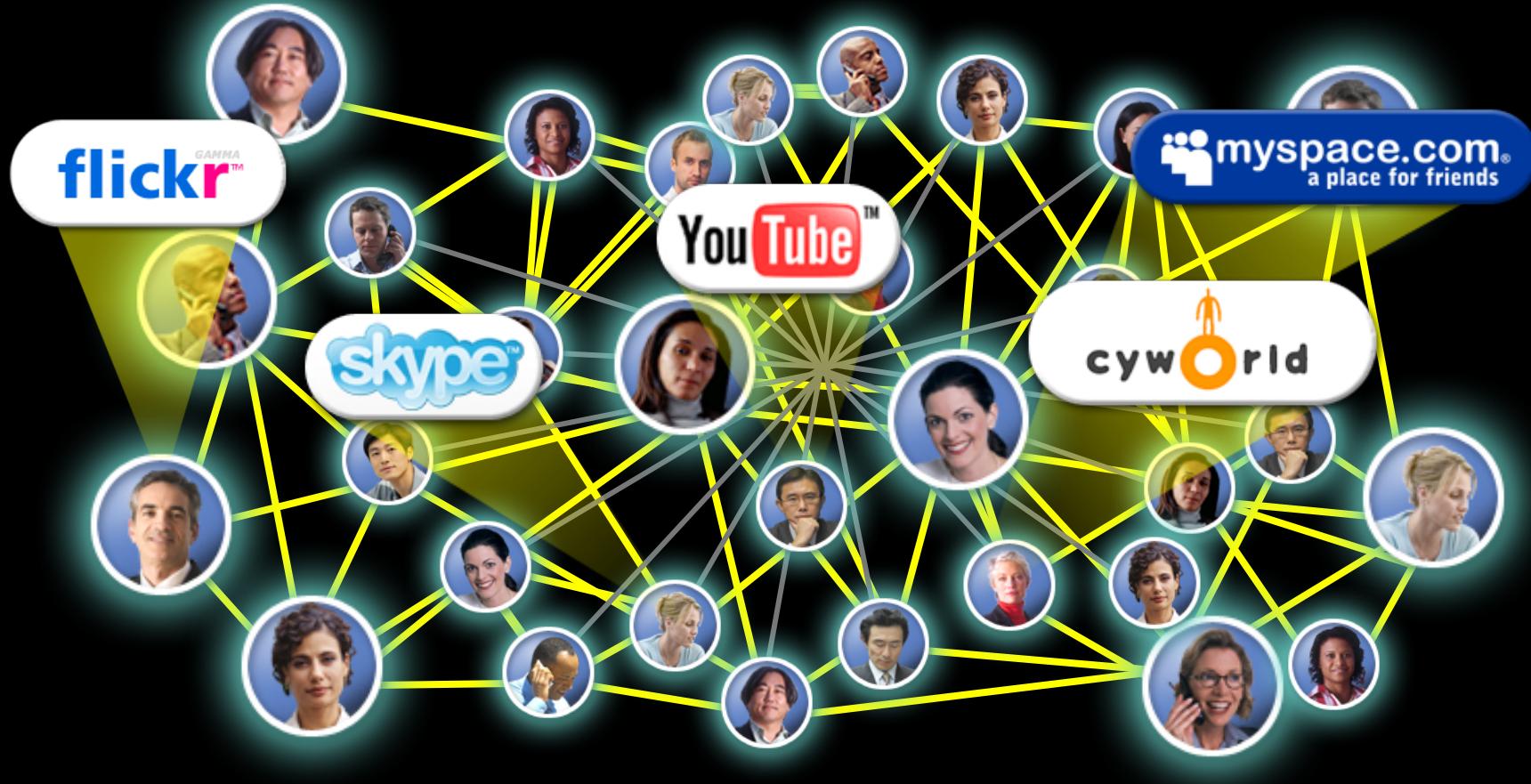


Cisco och IP-NGN

Henrik Bergqvist
Teknisk Direktör
Cisco Sverige



The Human Network



Connecting People

Consumer/Data Center

The Connected Life

On the Move...

Get the
high score



Share photos
with family



Use phone
as a wallet
and ticket



Download the
latest tunes



Watch TV
on train,
program
DVR for
tonight

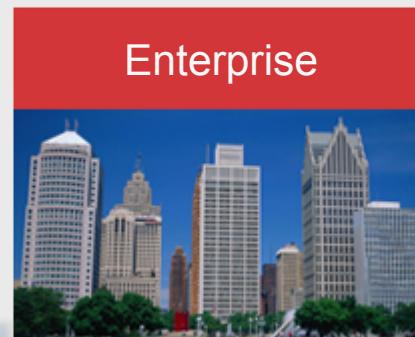


Schedule
a meeting



Cisco Service Provider Vision

Connecting Customers with Services,
Services with Networks,
and Networks with Each Other



IP Next-Generation Network



VPNs



Content



Transport



Mobility



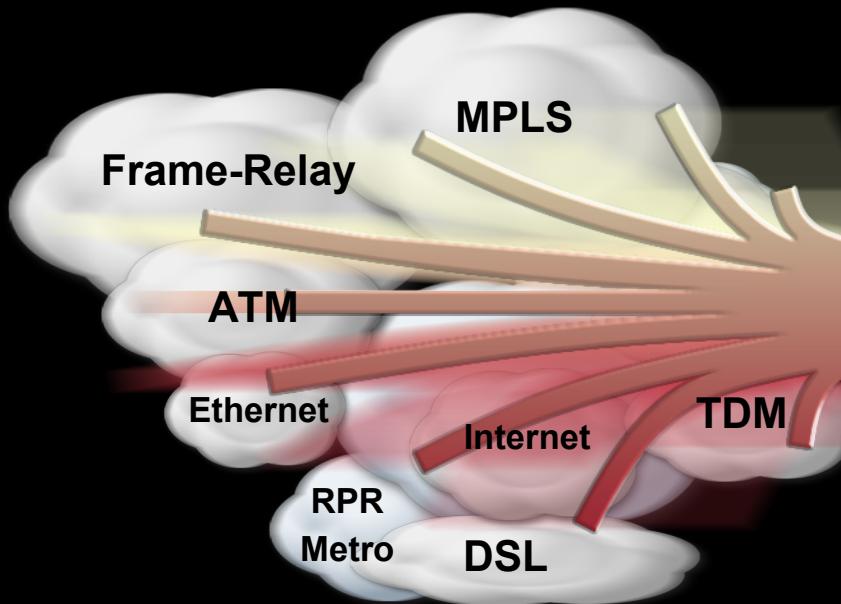
Internet



Voice and Video

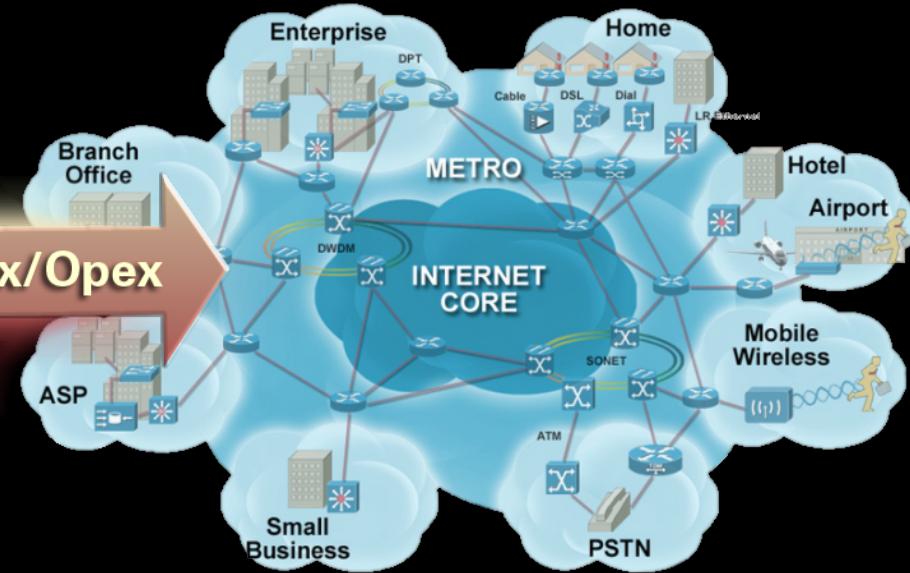
Mobile Core Networks need to change

Multiple Interworked Networks



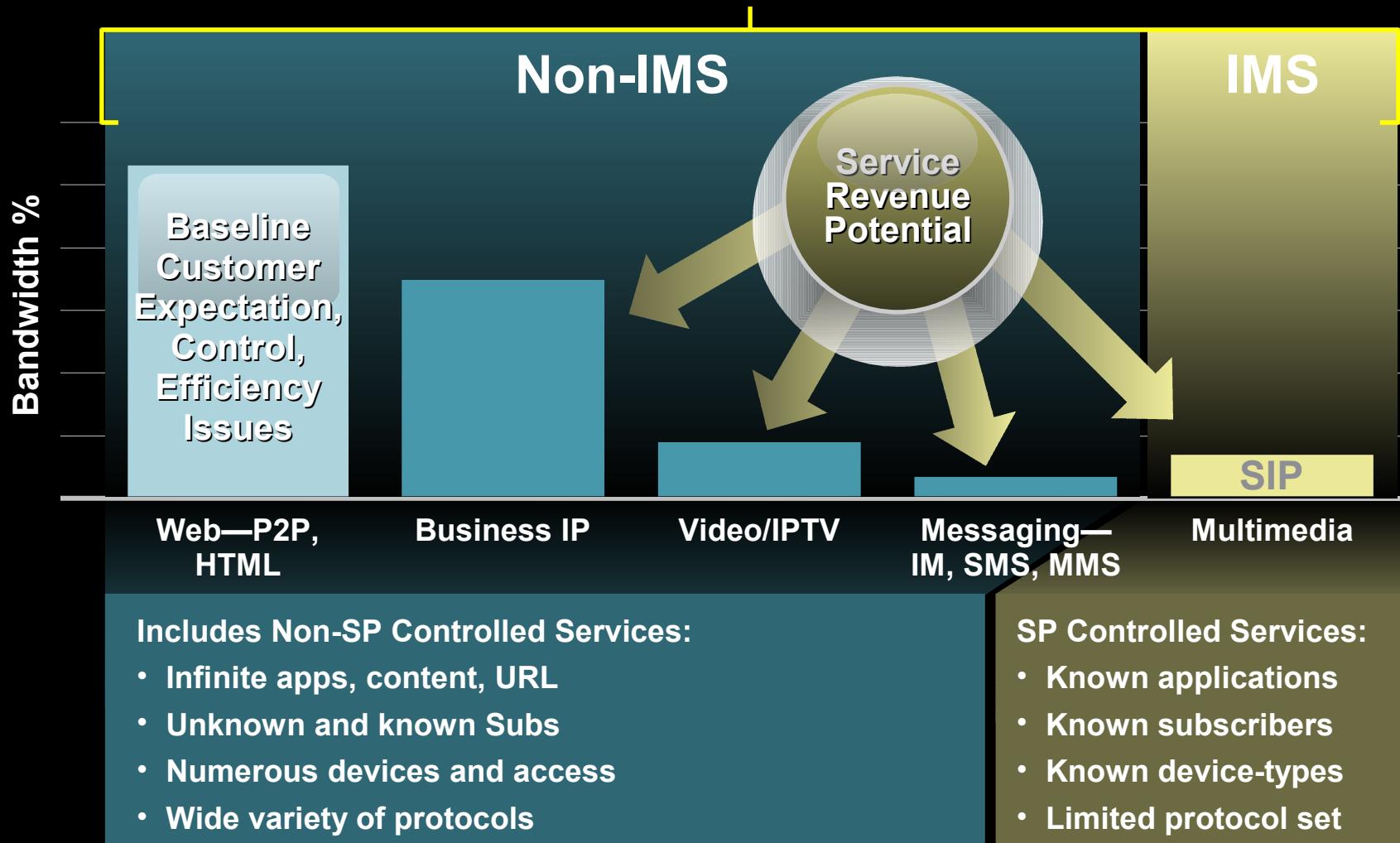
- Often connection oriented
- End-to-end provisioning
- Scalability issues
- Capex intensive
- Less Opex efficient

Converged Core



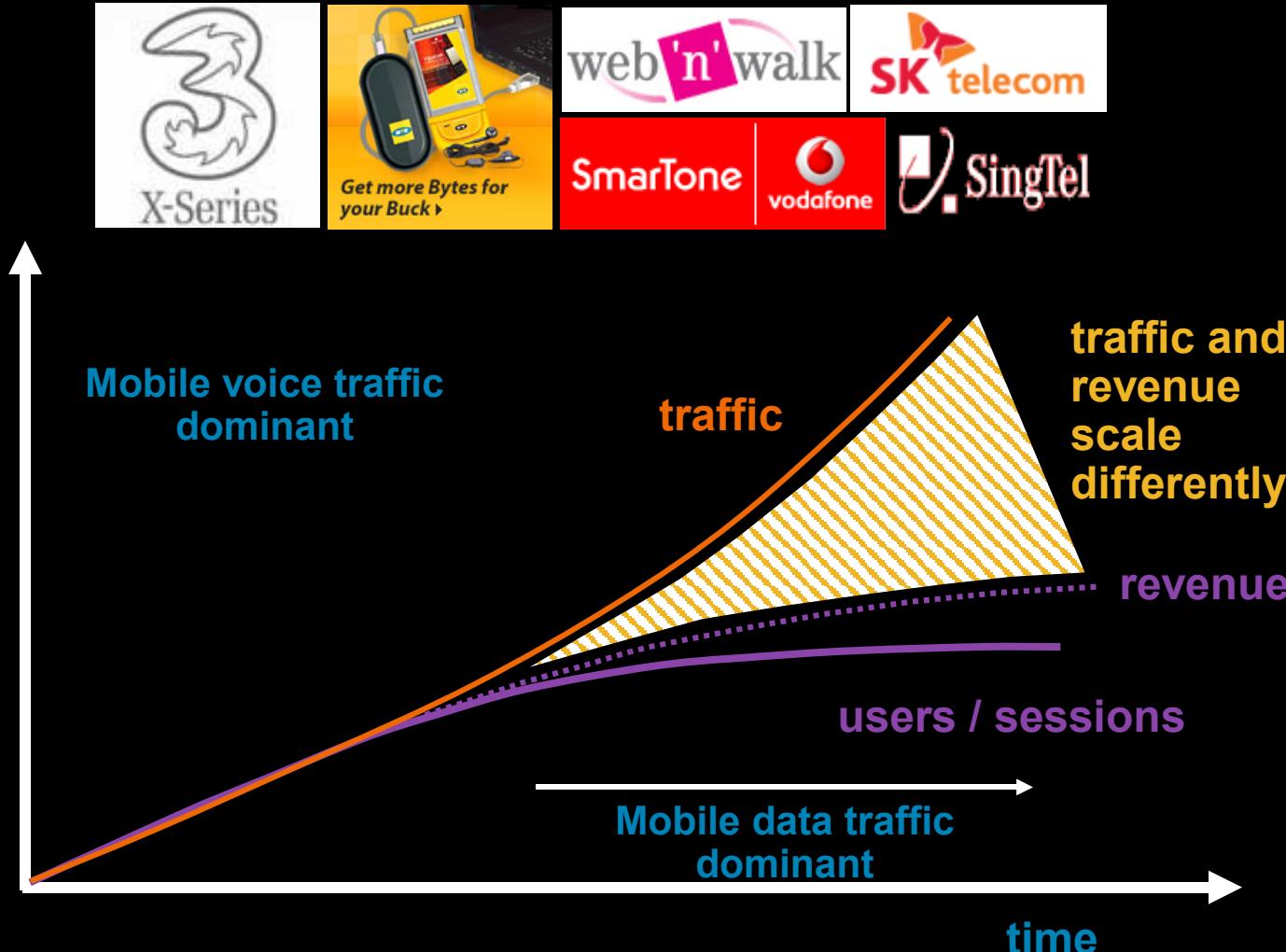
- Mostly connectionless
- IP/MPLS aware end-to-end
- Reduced provision replication
- Highly scalable
- More Capex and OPEX efficient

Bandwidth Traffic and Service Mix Varied Extends Beyond SIP, Coexistence Needed



Mobile Broadband Evolution

Convergence of Tariffing Models



Over-the-Top Model Progress

Voice

- Skype: 150M+ users
- 2 Years



Video

- YouTube: 120M streams/day
- 9 months



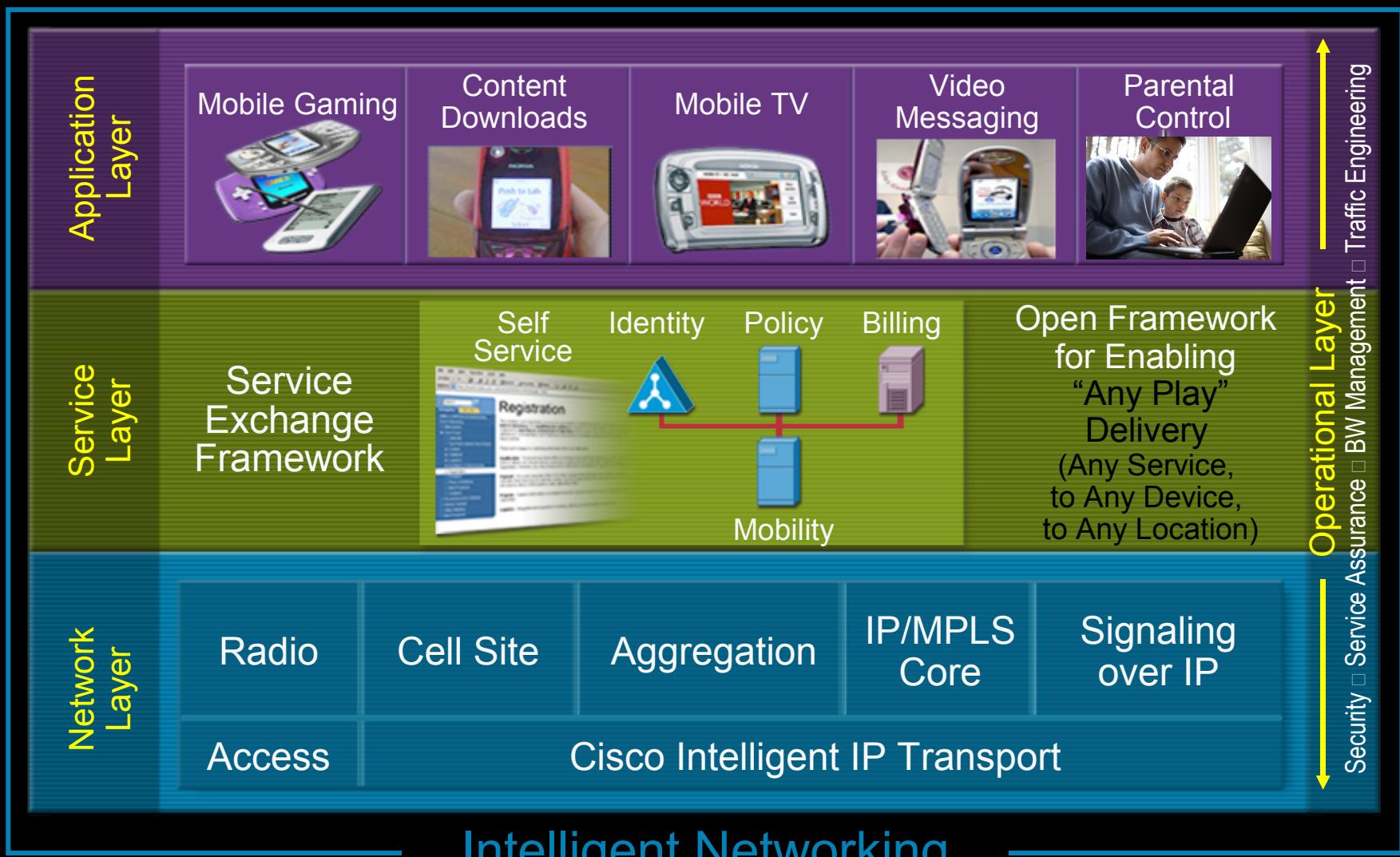
Community

- 50M+ visitors per month
- 3 years



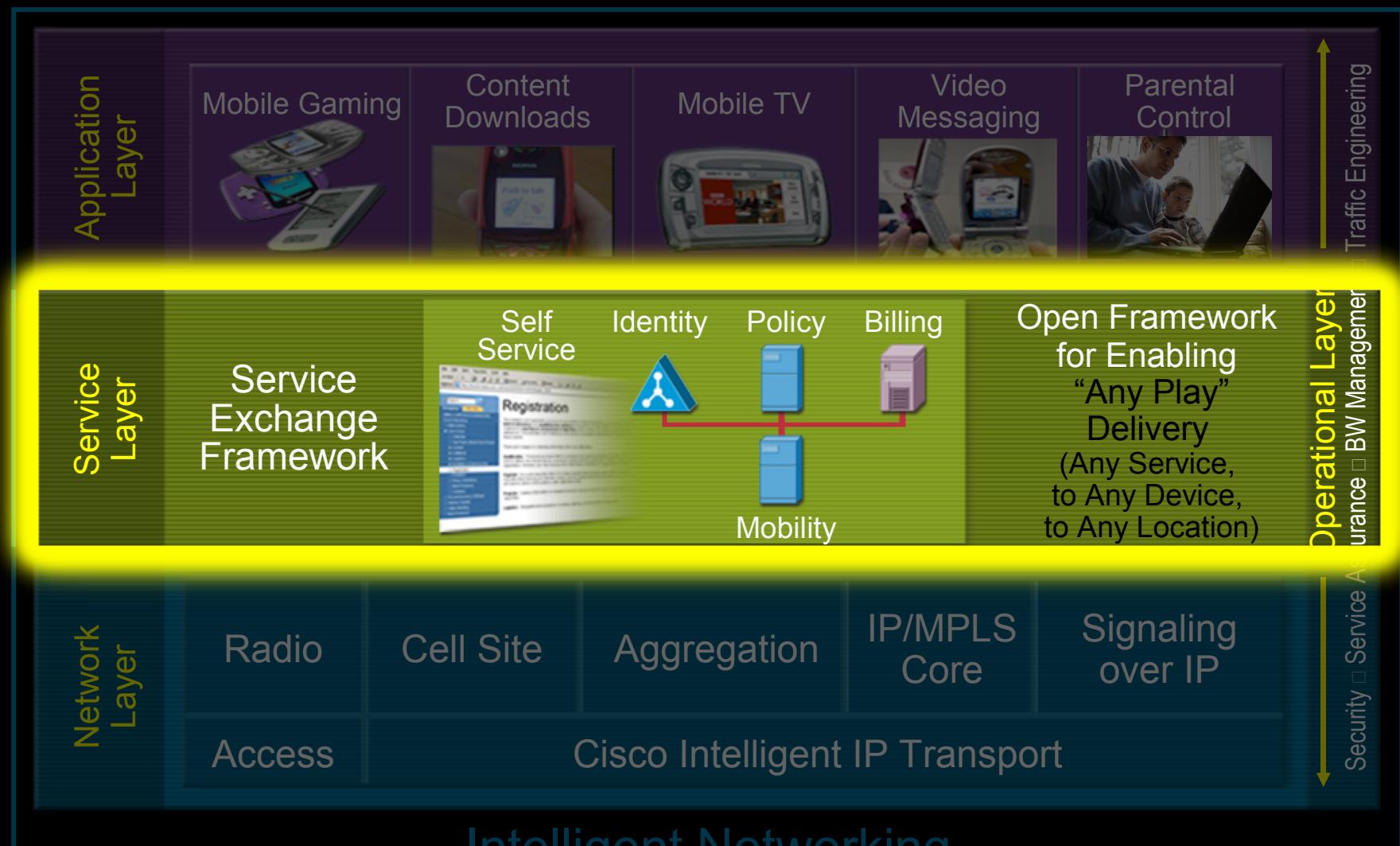
Cisco IP NGN Mobile Architecture

Achieving a Whole Greater Than the Sum of the Parts



Cisco IP NGN Mobile Architecture

Defined by Multiple Layers of Convergence



Service Exchange Framework

Open Framework for “Any Play”

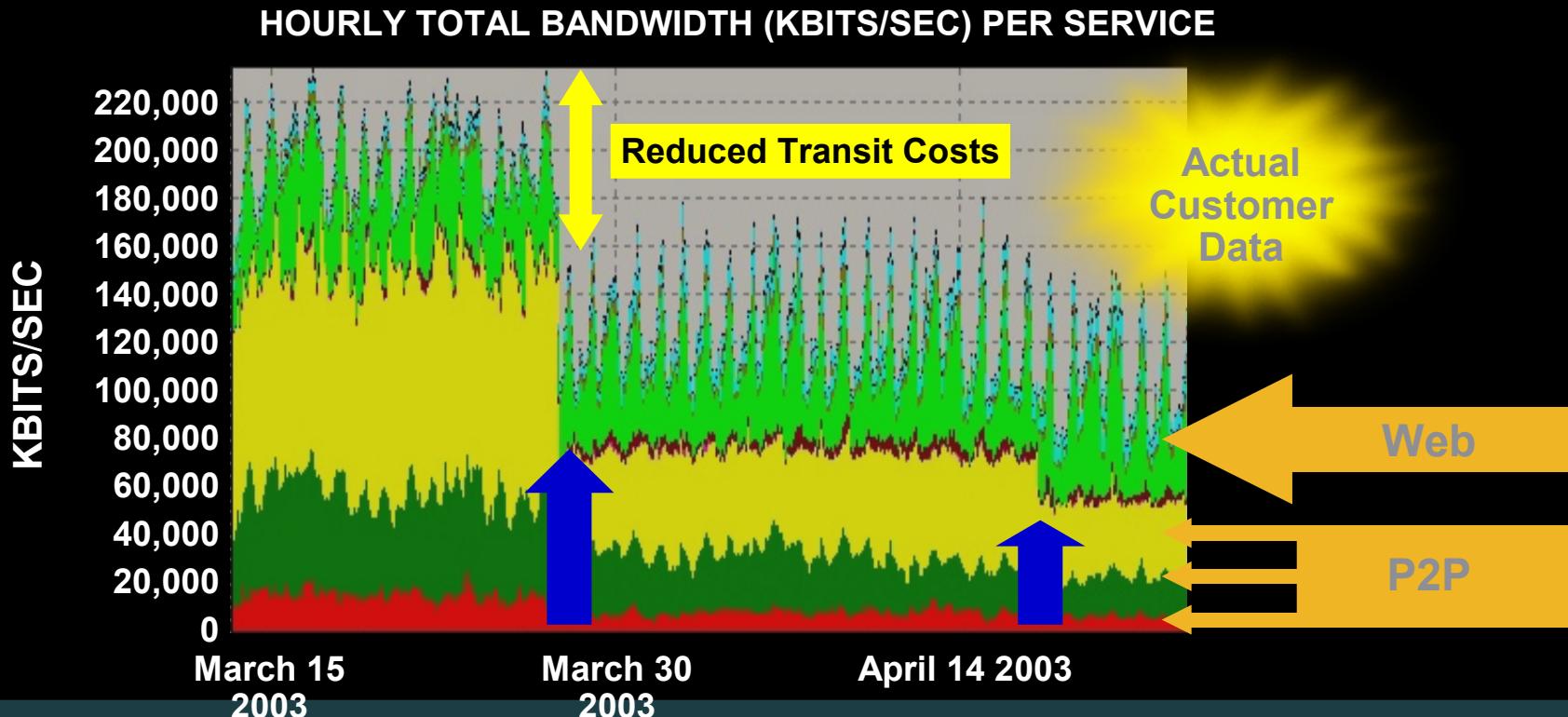


- Protecting branded service
- Access independent service control
- Speed to service
- Open interfaces/standards support

Service
Exchange
Framework

Efficiencies: Reduced OPEX & CAPEX

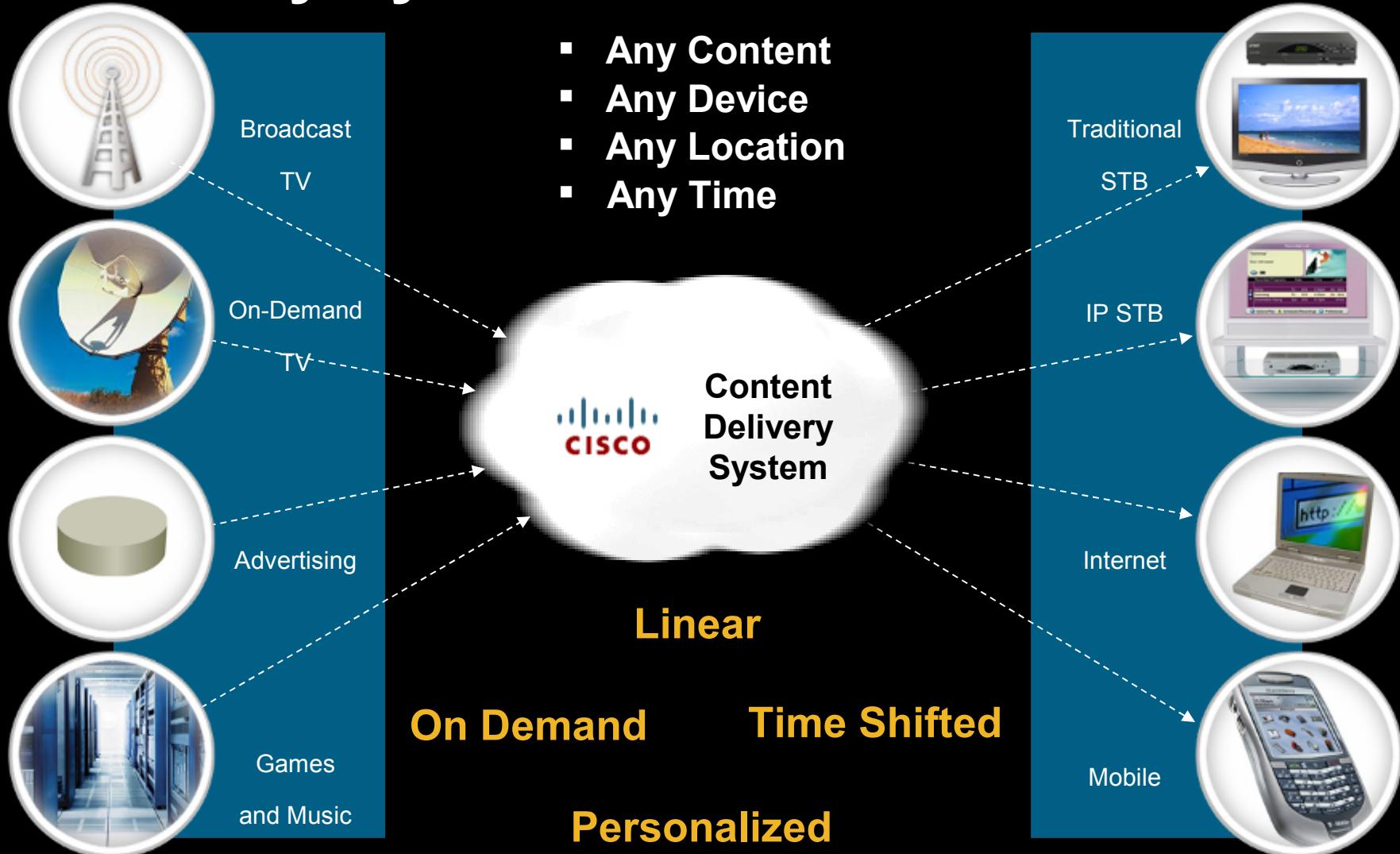
Example: Application Traffic Optimization



Reduction of peer-to-peer traffic, delivers:

- Improved performance and more bandwidth for interactive, billable apps
- Reduction of number of support calls with level of service complaints

Introducing Cisco CDS - Content Delivery System



Introducing the Cisco Visual Quality Experience (VQE) Technology

Preserve

Protecting IPTV Quality of Experience

- **Real-time video error repair**

Eliminates effects of uncorrelated bit errors on individual DSL lines

Local re-transmission of dropped IP packets to STB in Sub-100ms

- **Scalable, standard-based rapid channel change**

Maintains consistent user experience

Sub-100ms channel change time

- **Diagnoses problem areas**

Monitoring and reporting of faults per DSL line above threshold

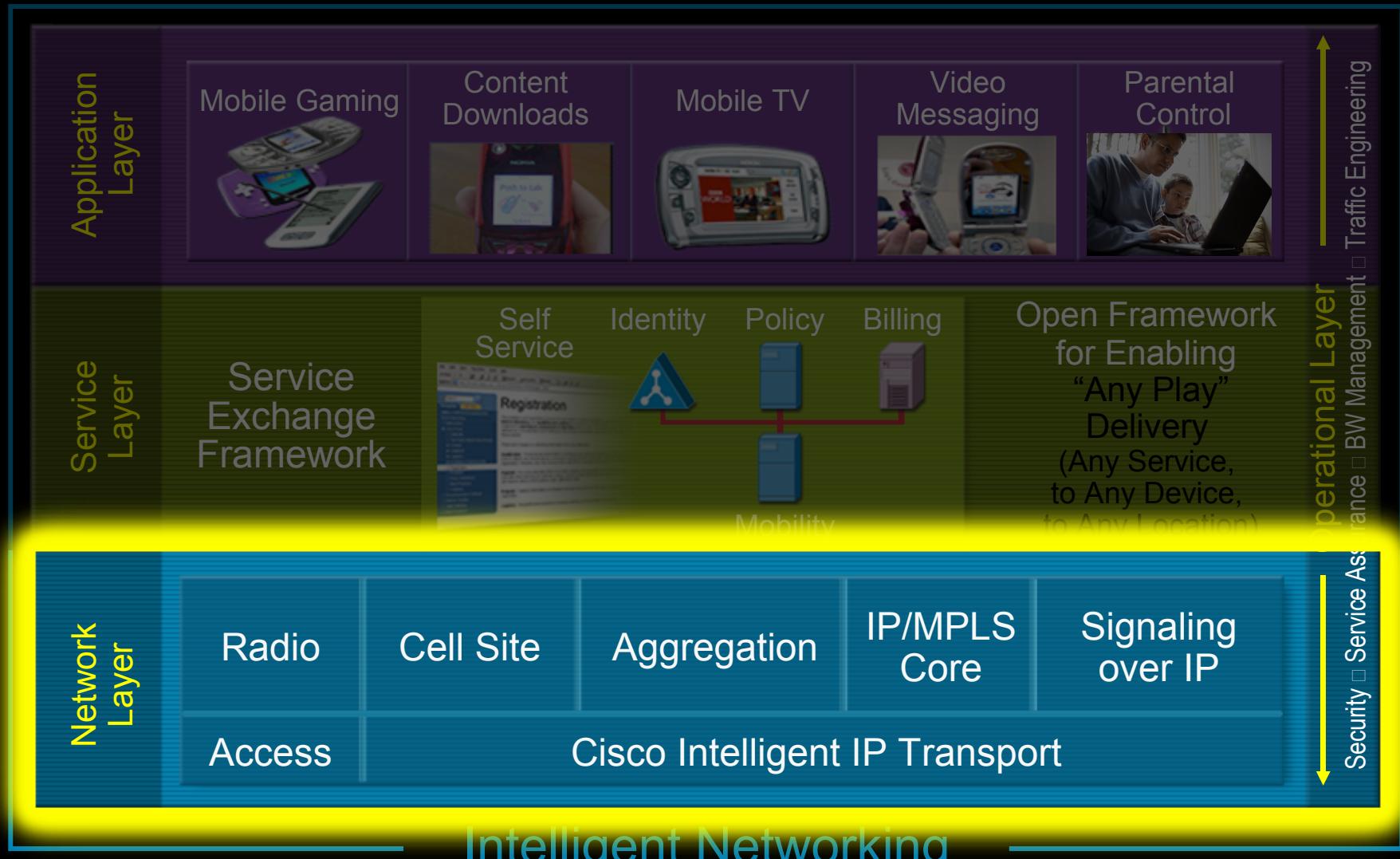


Phase 1: Network Appliance
Phase 2: Integrated into Cisco 7600 Edge Router

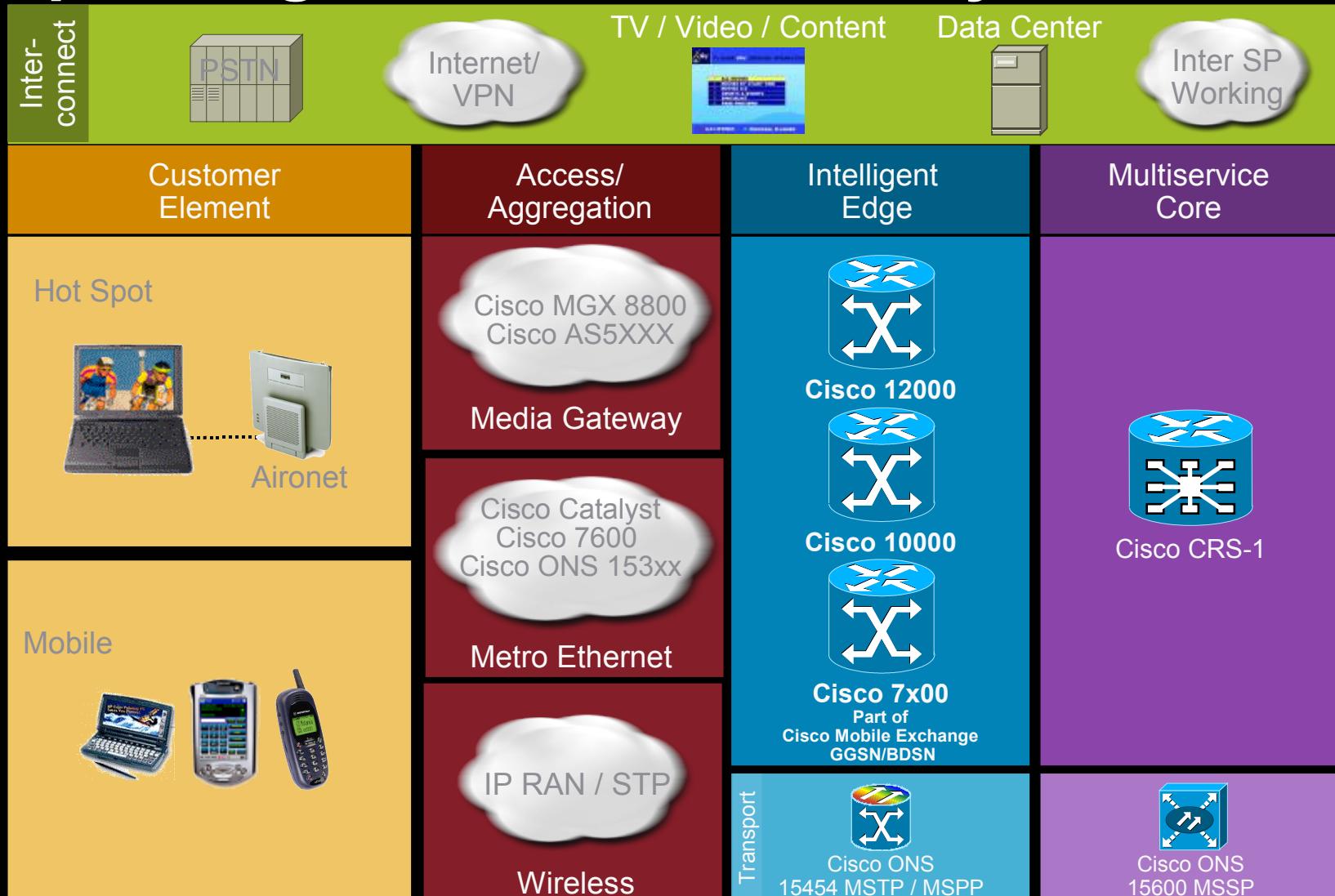
VQE does for Video
what Dolby did
for Stereo

Cisco IP NGN Mobile Architecture

Defined by Multiple Layers of Convergence



Cisco IP NGN Technology—Mobile Spanning Secure Network Layer



Cisco CRS-1

Power Behind the Screen

- **Unprecedented service flexibility**
 - Intelligent video distribution
 - Secure virtualization for Entertainment and Business Grade Services
 - IPoDWDM Integration for scale and performance
- **Continuous system operation**
 - True Telco grade OS—IOS-XR
 - Hitless in-service hardware and software upgrades
- **Unparalleled system longevity**
 - Multi-chassis fabric scales to 92Tbps
 - 40G Spanning 4, 8 and 16-slots Configurations
 - 100G Ready



Experiences on the Human Network

Delivered by Experience Providers, Enabled by Cisco

Connected Life



At Home



At Work

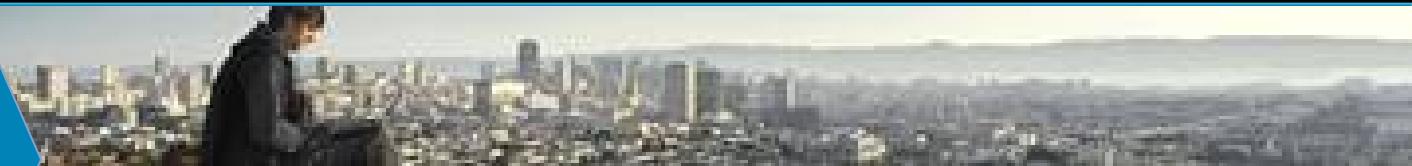


On the Move

Personalized experiences for individual preferences

Experience Providers

Delivers unique, integrated experiences



Provides the enabling IP NGN foundation

Tiotusenkronorsfrågan

- Hur blir fördelningen mellan operatörsdrivna tjänster och Over the top tjänster
- Cisco har lösningarna för båda

Video is Key for Experience Delivery



High Definition



Video Phone



Video Streaming



Video-TV On Demand /
DVR/ Mobile TV



Tele Presence



Video to Other Devices

**Managed
Video
Applications**

**Video
Communications
Services**

**“Over the Top”
Video**

