NGN - BASE FOR EXPERIENCE PROVIDERS

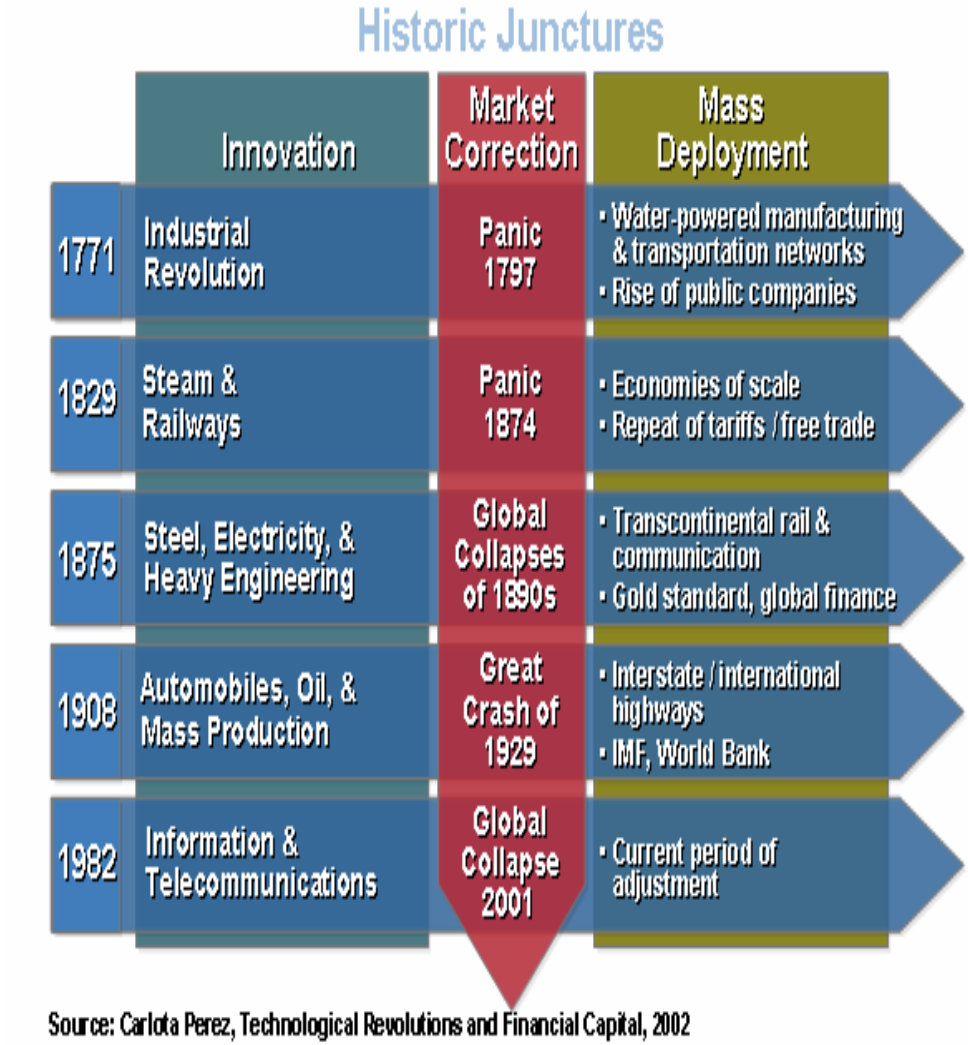
SEPTEMBER 5th 2006

FRANCISCO FUENTES

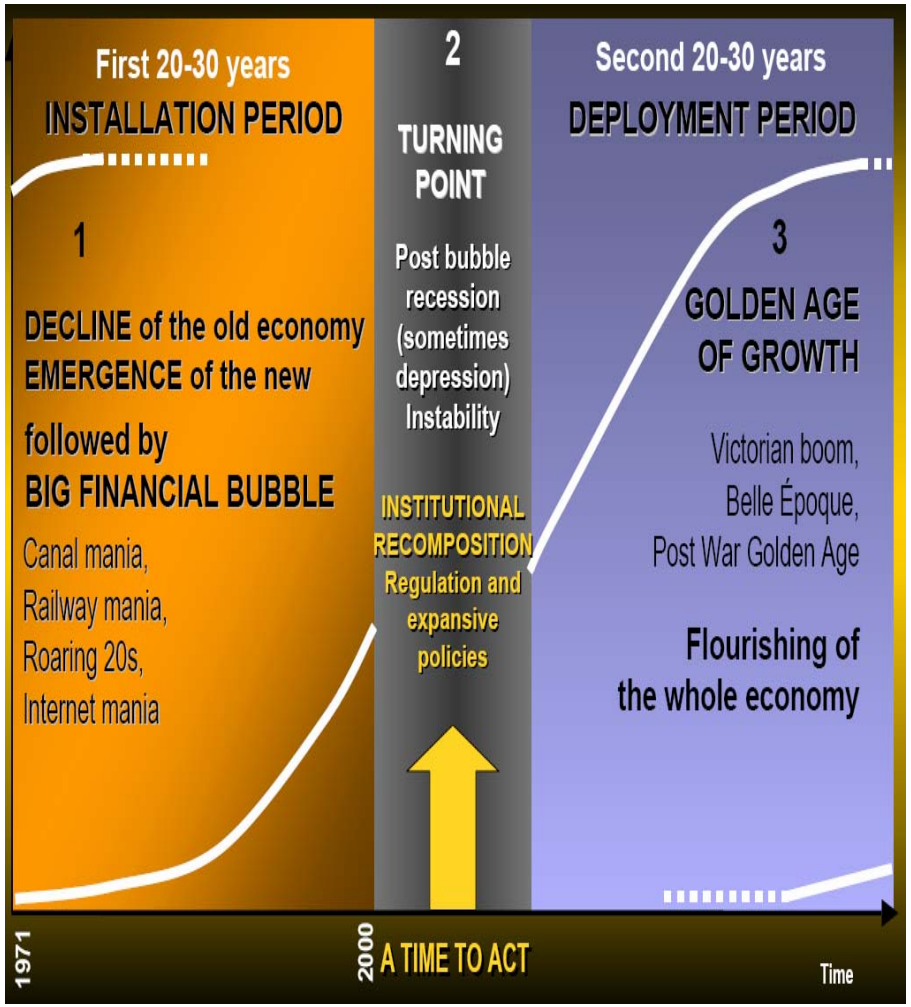
TECHNOLOGY STRATEGY

CISCO SYSTEMS

We are at a Turning Point



Source: Carlota Perez, Technological Revolutions and Financial Capital, 2002



Source: Prof Wolter Lenstra

Telecoms Business is changing

Simplicity

Complexity

Consumer driving the Market

Voice

- Skype: 150M+ users
- 2 Years

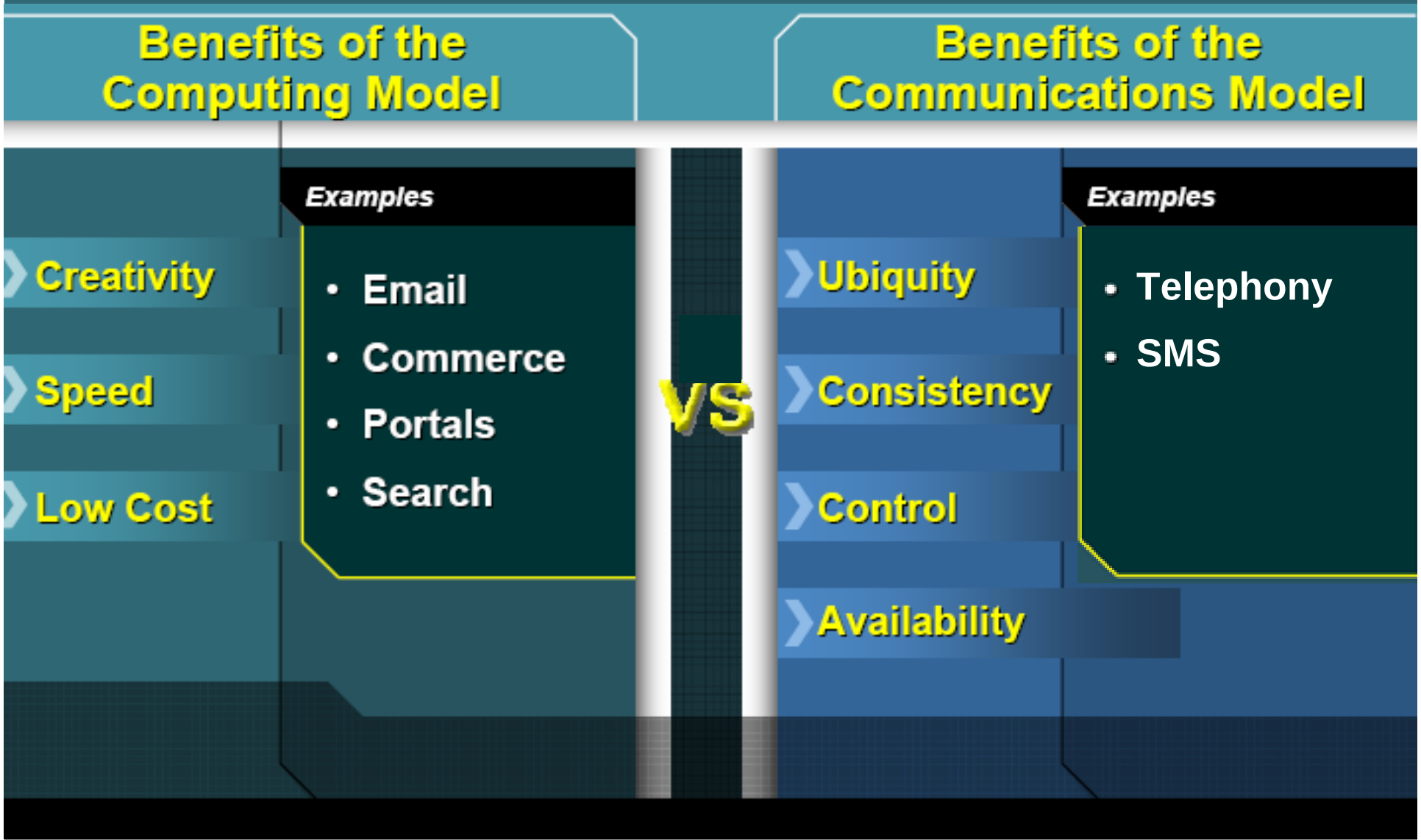
Video

- YouTube: 120M streams/day
- 9 months

Community

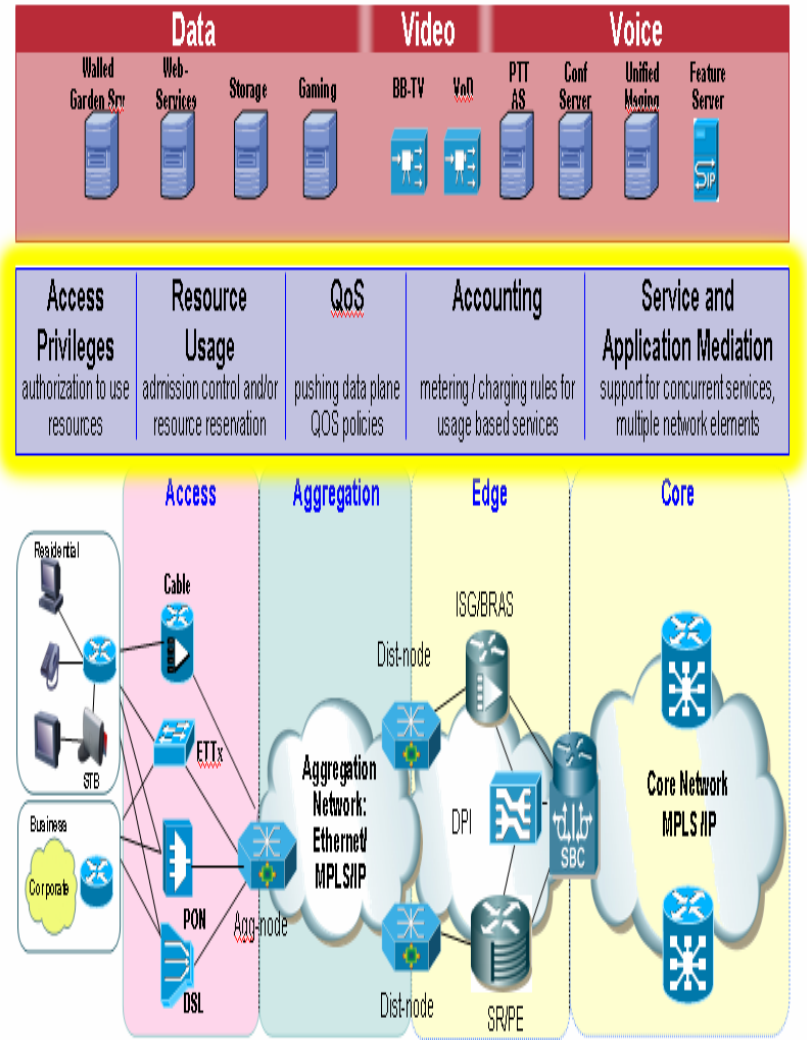
- 50M+ visitors per month
- 3 years

The power of the “AND”



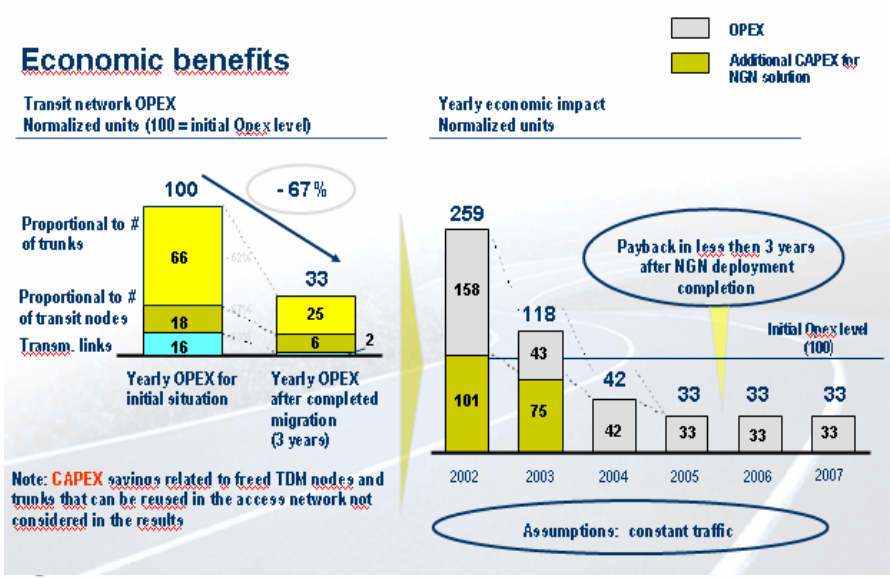
Next Generation Networks

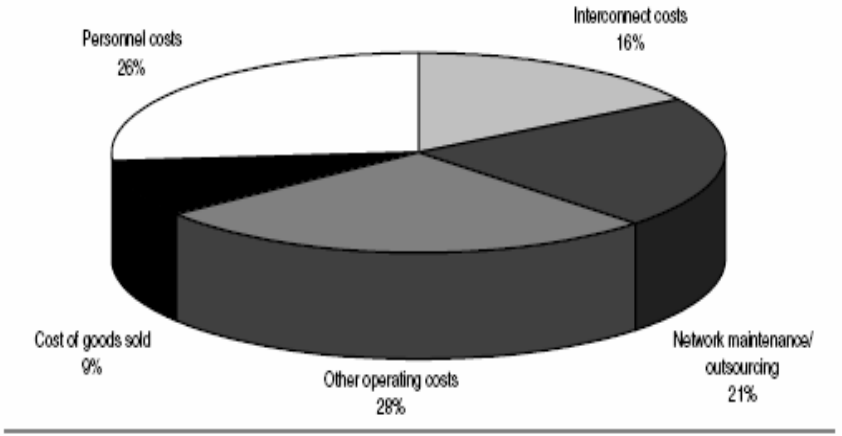
- **Next Generation Core is delivered by the means of changing the equipment for transmission and switching**
  - **Driven by potential efficiencies in supplying the existing services**
- **When it is touching the access it is referenced as Next Generation Access**
  - **Higher bandwidth, Greater symmetry, Lower contention, Supporting higher peaks**
- **Next Generation Service Exchange Platform is the platform managing the services**
  - **Intelligence decoupled from Network**
  - **Real Time provision, customisation and control of services**



Next Generation Networks
Next Generation Core

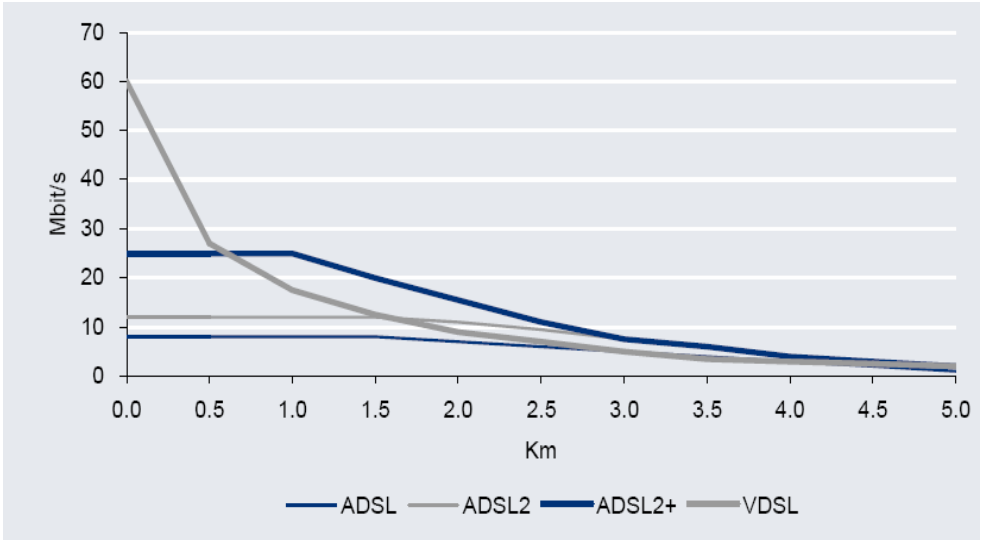
- **CAPEX**
  - **Reduction/elimination of network layers (e.g. SDH, ATM)**
  - **Network consolidation**
  - **Use of standards for NGN networking equipment**
  - **Efficiency gain with IP**
- **OPEX**
  - **Fewer Network Elements**
  - **Fewer Interfaces**
  - **Large savings in network maintenance.**
- **Other Operating Costs**
  - **Property (Footprint reduction)**
  - **Power costs, IT costs**
- **Influenced by the Transition Period**

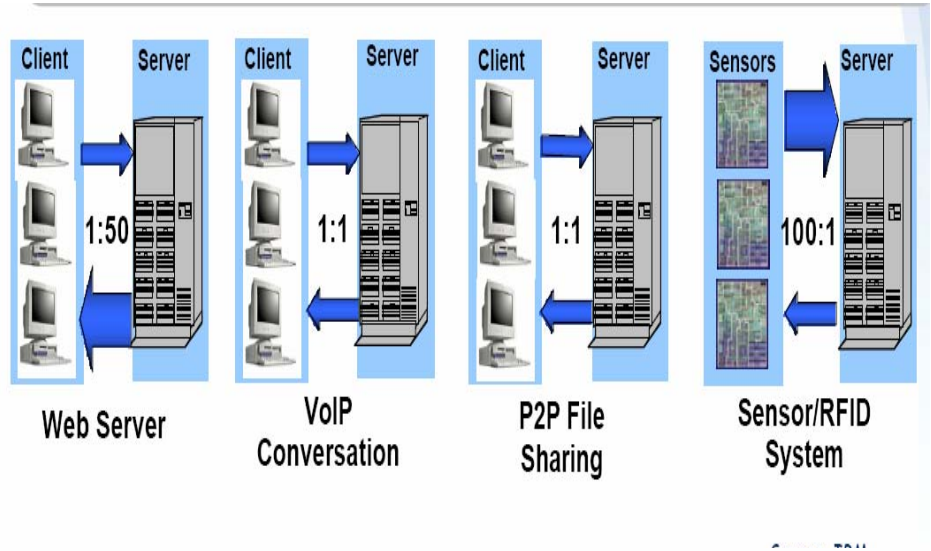




Source: Company data, CSFB estimates

Next Generation Networks
Next Generation Access





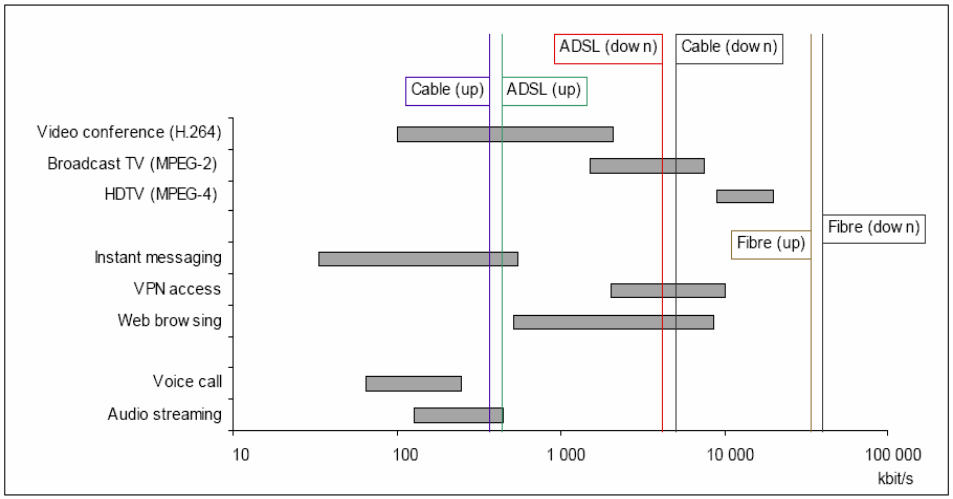


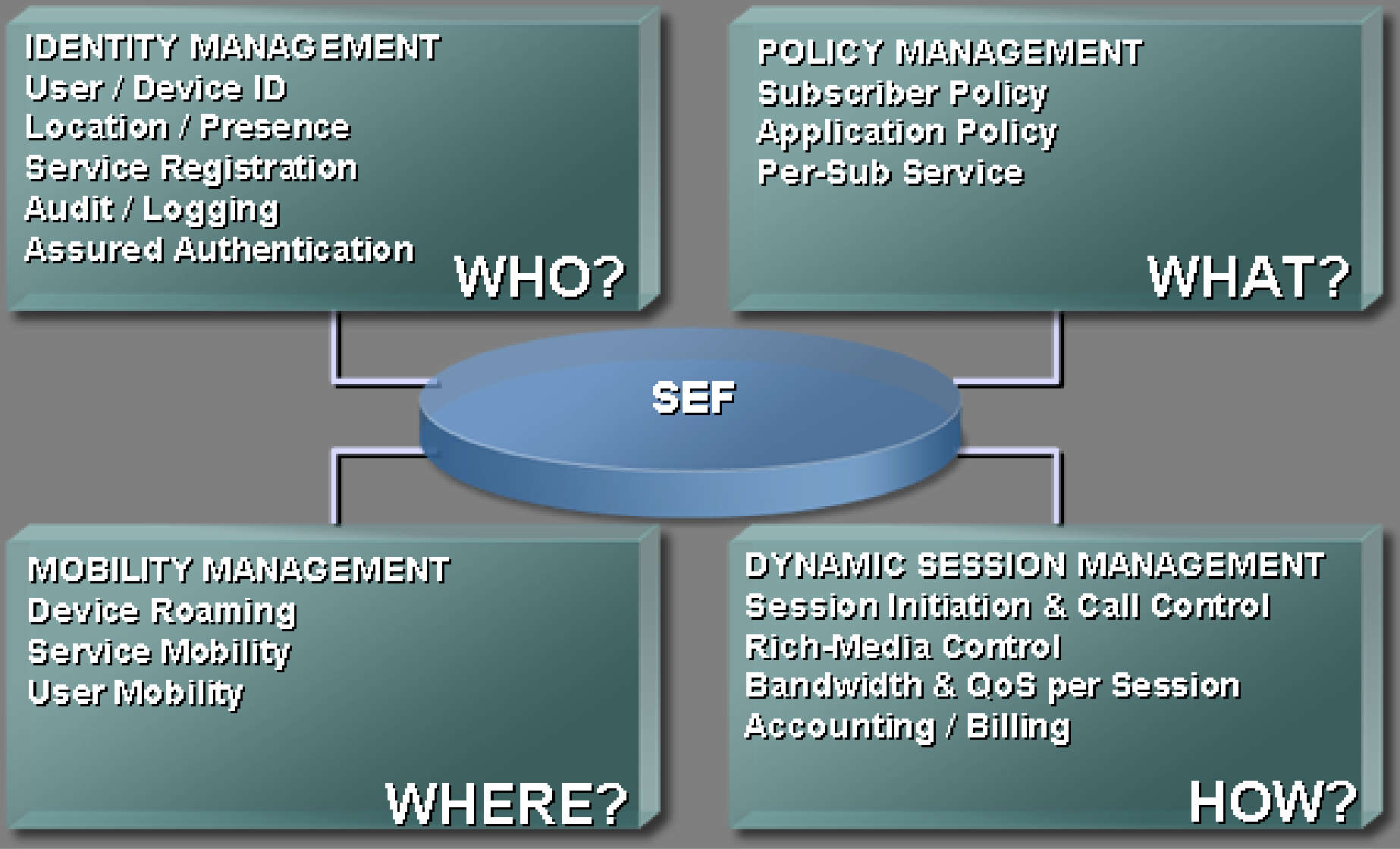
Fig 12 Typical bandwidth requirements for future homes

Service	Bandwidth required
2 MPEG-4 HDTV streams	24Mbit/s
Internet	8Mbit/s
Voice	0.25Mbit/s
Video telephony	5Mbit/s (duplex)
Total	**37.25 Mbit/s**

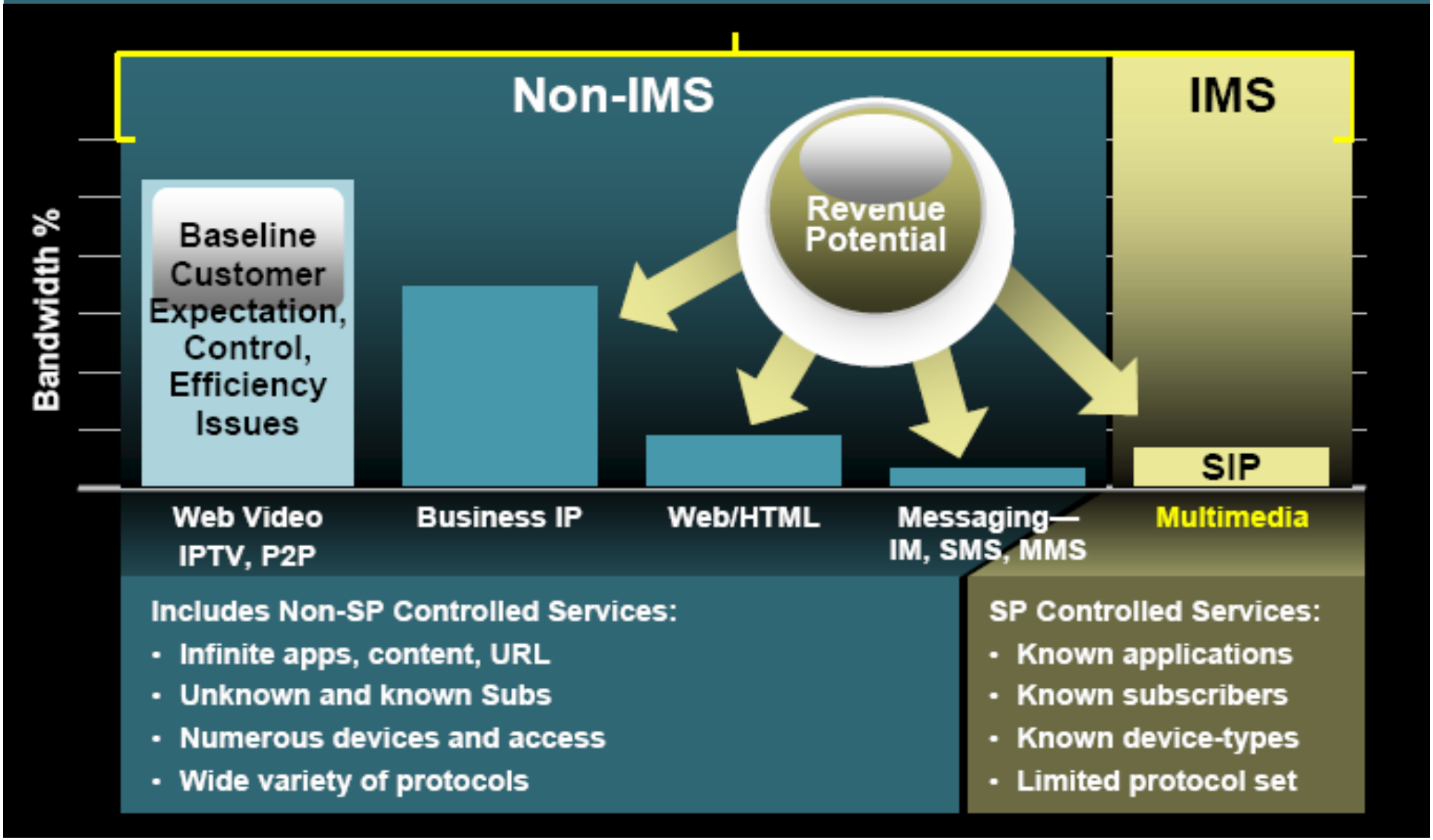
Source: ING

Source: ING, OECD, IBM

Next Generation Networks
Next Generation Service Exchange Platform



Next Generation Networks
Needs to address the whole Spectrum

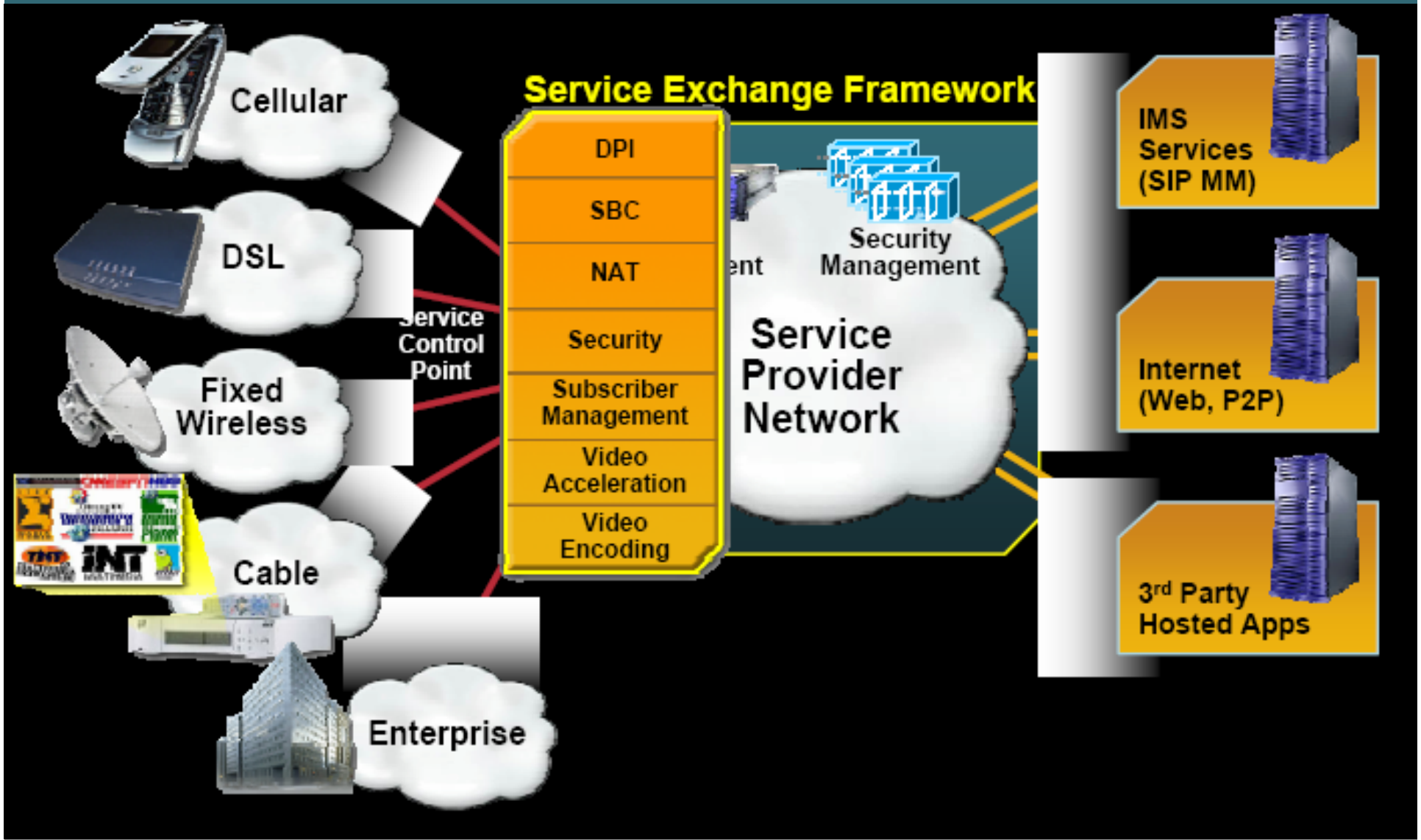


Next Generation Networks
Achieve Convergence at different Layers

Devices		Application Layer Convergence	Integration of new billable services
Applications	**VoD, nPVR, Web, FMC, Gaming Email, Voice Mail, Local/LD**		
Systems	**IMS, SEF, Directory, Policy, Identity, Proxy, Authentication**	Service Layer Convergence	Service continuity across networks
Network Infrastructure	**Core, Metro, Access, Premise, Servers, Cache, Gateway**	Network Layer Convergence	Eliminate network layers to increase OPEX/CAPEX efficiencies
Plant/ Optics	**Amps, Nodes, Optical Repeaters, Coax Cable**		

Operations Layer

Summary
Architecture of the Future



Summary
Become an Experience Provider