Telecoms Market Transformation

An Industry Struggles to Navigate Through Rough Seas

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IDC

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- IDC is the premier global ICT market intelligence, events, and advisory firm
- We analyze and predict technology trends so that our clients can make strategic, fact-based strategic decisions
- Now with 1000+ analysts in 50 countries, we have been delivering IT intelligence, industry analysis, market data, and strategic guidance since 1964
- IDC is a division of IDG, the world's leading technology media, research, and event company

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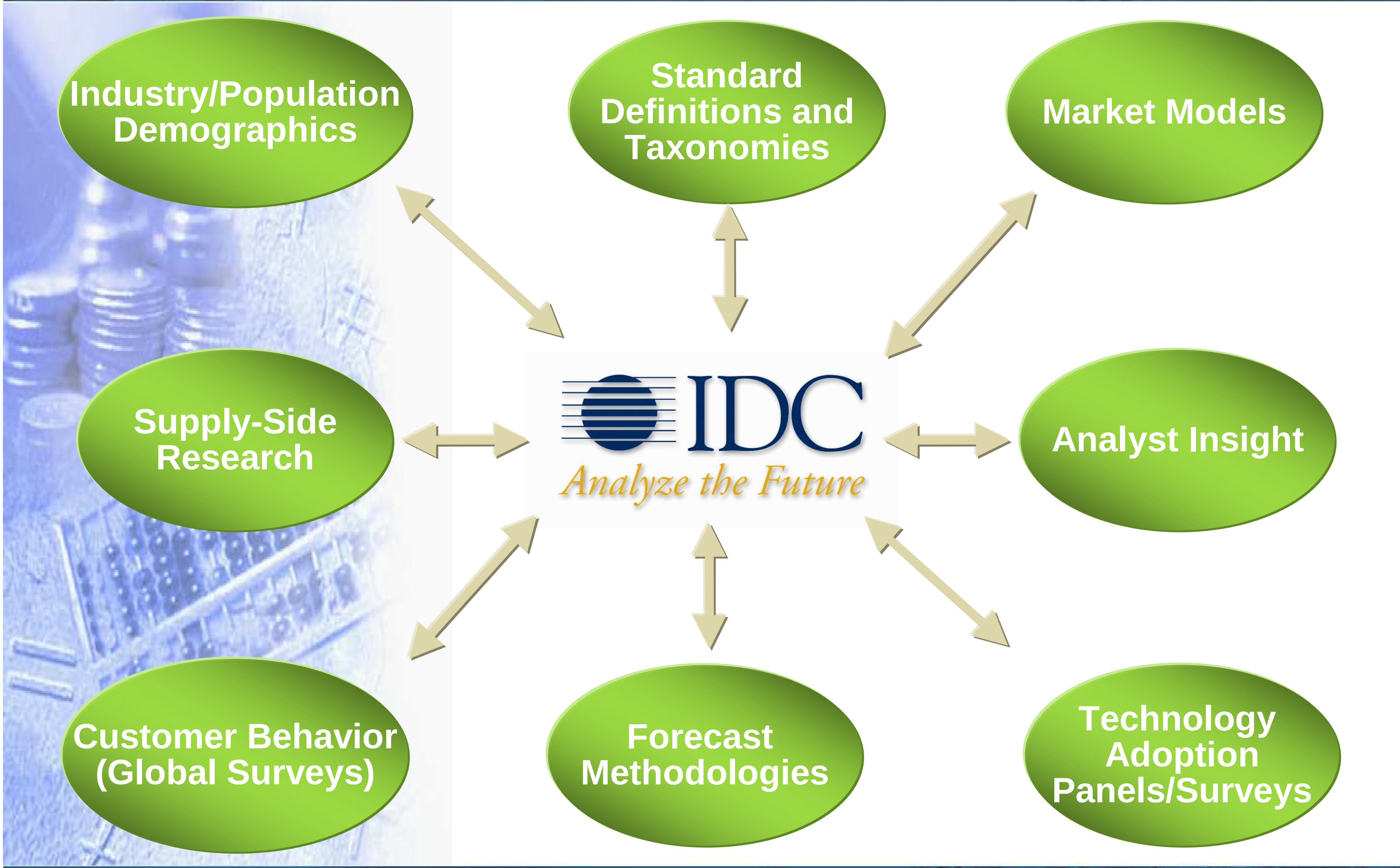
- IT Security
- MFP/Printers/Copiers
- Systems & Servers
- Mobile Devices
- IT Overview
- Personal Systems
- Software
- Communications
- SHD
- IT Services
- Peripherals
- Channels
- Verticals
- Storage
- Telecoms Services
- Networking Equipment
- Components

Market Research Methodology and Expertise



IDC CEMA: Central and Eastern Europe

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Albania
Austria
Belarus
Bosnia & Herz.
Bulgaria
Croatia
Cyprus
Czech Republic
Estonia
Greece
Georgia
Hungary
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Macedonia
Montenegro
Poland
Romania
Russia
Serbia
Slovakia
Slovenia
Tajikistan
Turkmenistan
Ukraine
Uzbekistan
Rest of CEE

- **13 Country Offices**

  Austria, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Kazakhstan, Poland, Romania, Russia, Serbia, Slovenia, Ukraine

- **20 Trackers**

  PCs/systems   Peripherals   IT Services

- **4 Database Services**

  Telecoms Services   Wholesale Telecom Services
  Telecom Equipment   IT services

- **14 Report Series**

  Hardware   Telecoms   Software & Services   Verticals

- **Four Conference Themes**

  50+ events   16+ countries

IDC Services Support You Through Every Stage of Business Planning – Enhancing Competitiveness

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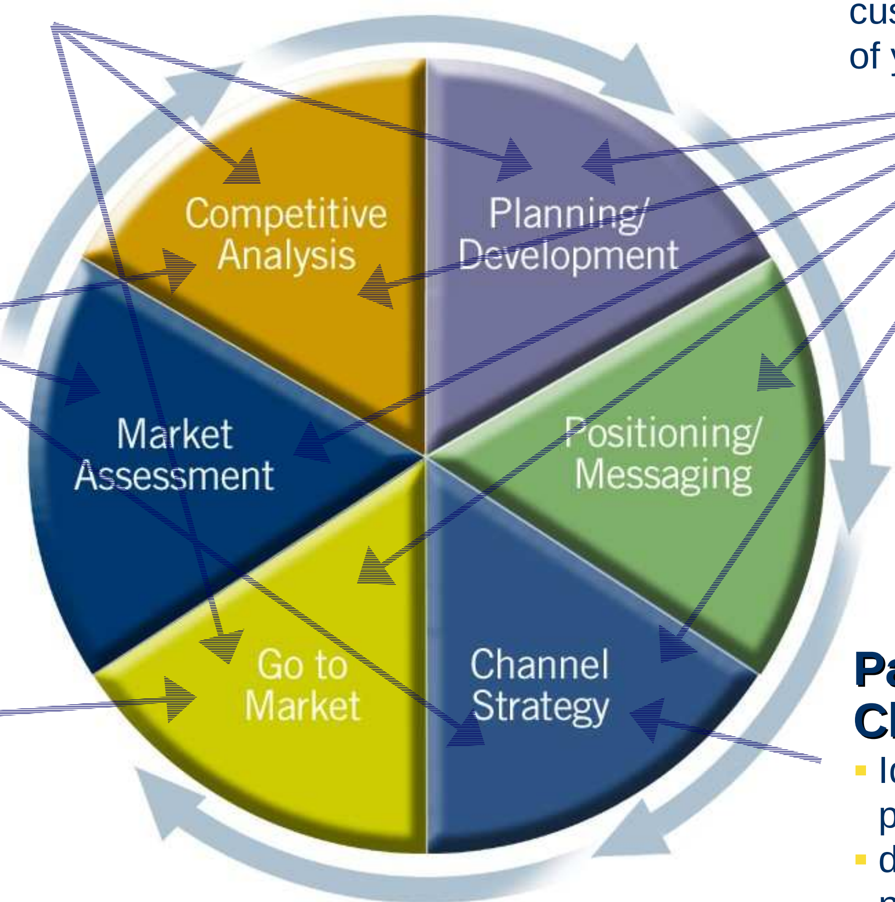
Market Intelligence Services

- Opportunity and threat assessment
- Market trends, their impact, and your strategic options
- Competitor strategies
- Industry best practices
- Direct analyst expertise

Custom Consulting

- Our teams can help with custom projects in any stage of your planning



Data Tracking Tools

- Electronic tools to track market data frequently

Go-to-Market Services

- Lead generation
- Speaking engagements
- Sales cycle advancement
- Unbiased content for marketing collateral

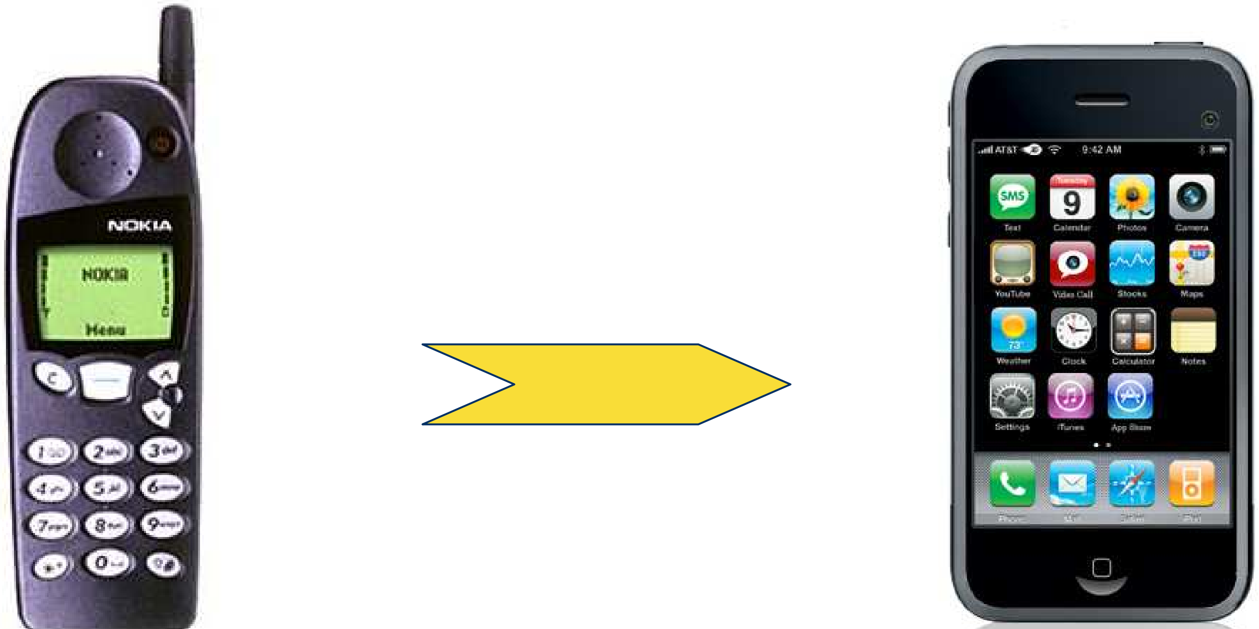
Partnering and Channel Offerings

- Identify key players to partner with
- develop partner programs new channel strategies
- new delivery models

Agenda

- Tech innovation is thoroughly transforming the telecoms industry.
- This process presents enormous challenges and opportunities to the market players striving to stay on top or create new alternatives.
- It also is changing the way that businesses and individuals communicate and live.
- What will the industry landscape look like when the transformation is finished?
- And how will that change the way businesses operate and people live?

Handset Evolution Drives Change



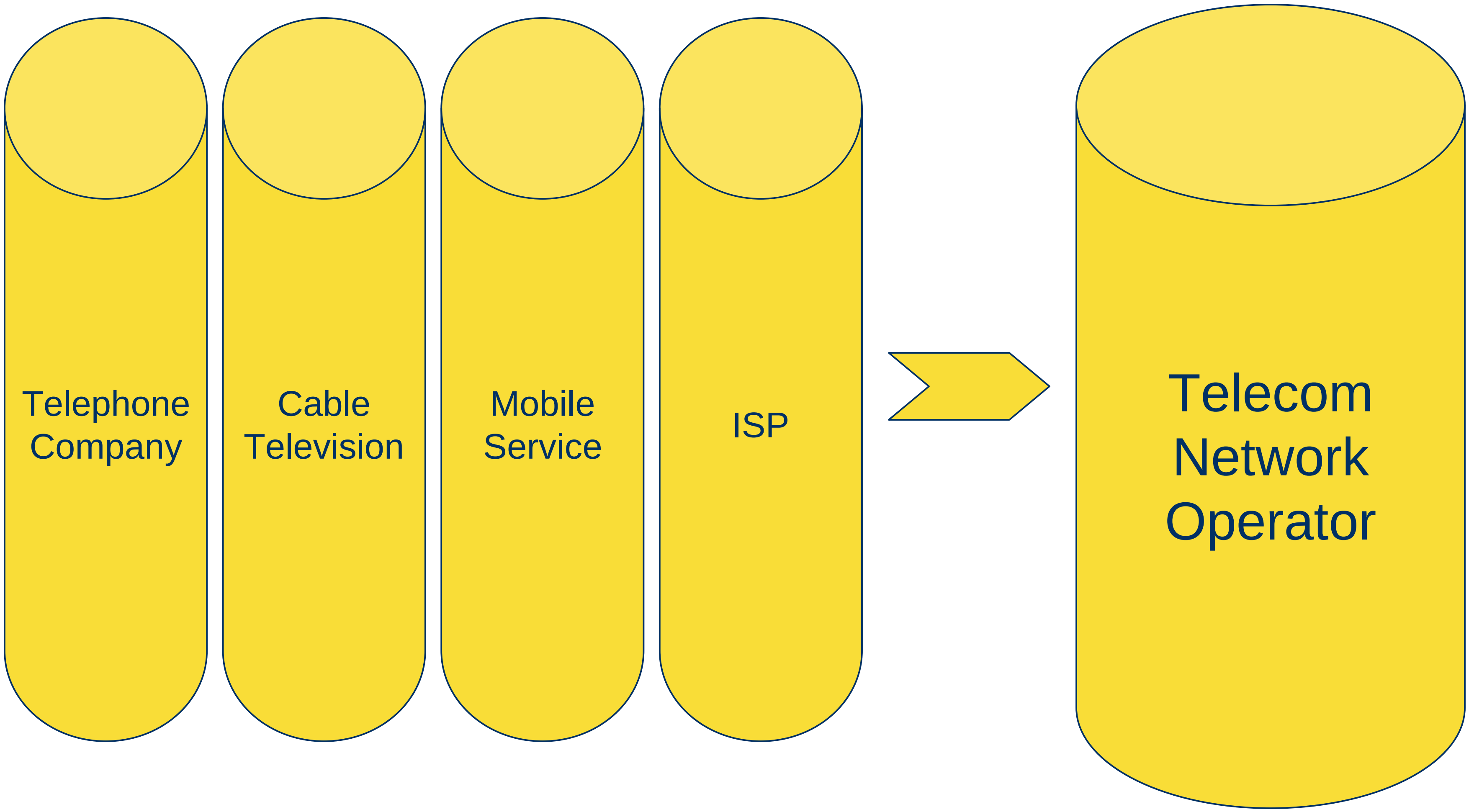
- Handsets are now advanced computers with highly advanced input and output
- Handsets will only get more powerful and capable
- Handsets are integrated into public and corporate networks
- Now that they are there, what else can we do with them?

Networks Drive Change

- Data traffic long ago surpassed voice traffic
- Voice generates most revenues, but also most cost, despite low traffic
- Why not switch voice to data networks to save money?
- And continue expanding data capabilities, to generate new services?

Networks Move Far Beyond The Telephone

Network Change Breaks Down Barriers



Networks Cause Organizational Change

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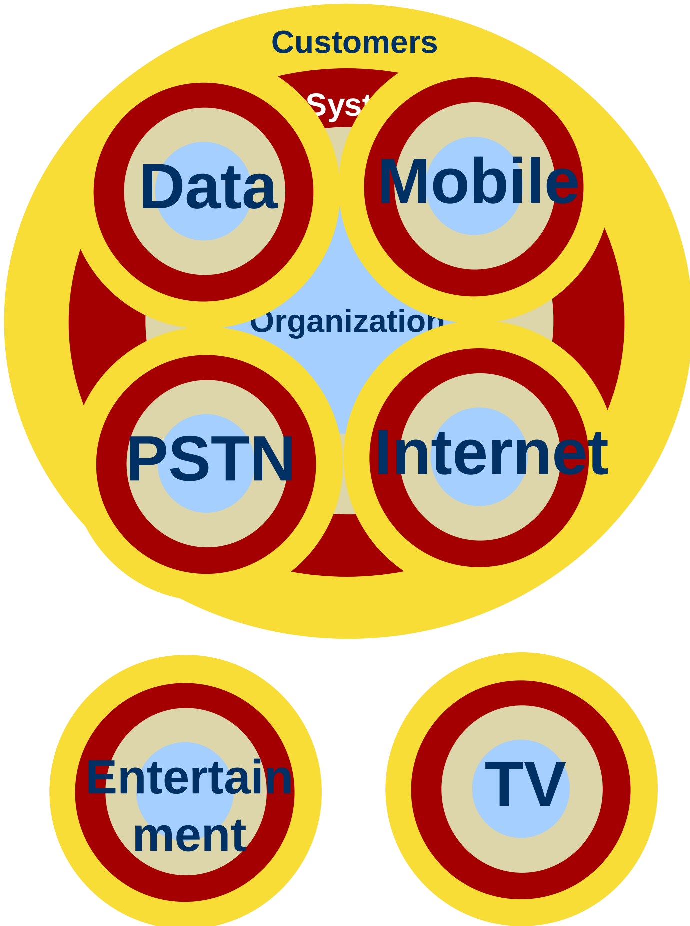
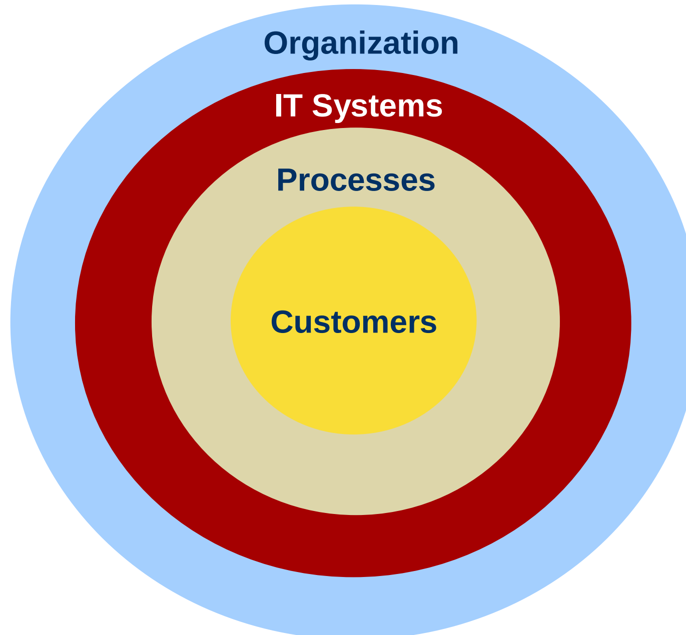
Product-Driven Telco



Customer-Focused Telco



Business Demands Drive Change

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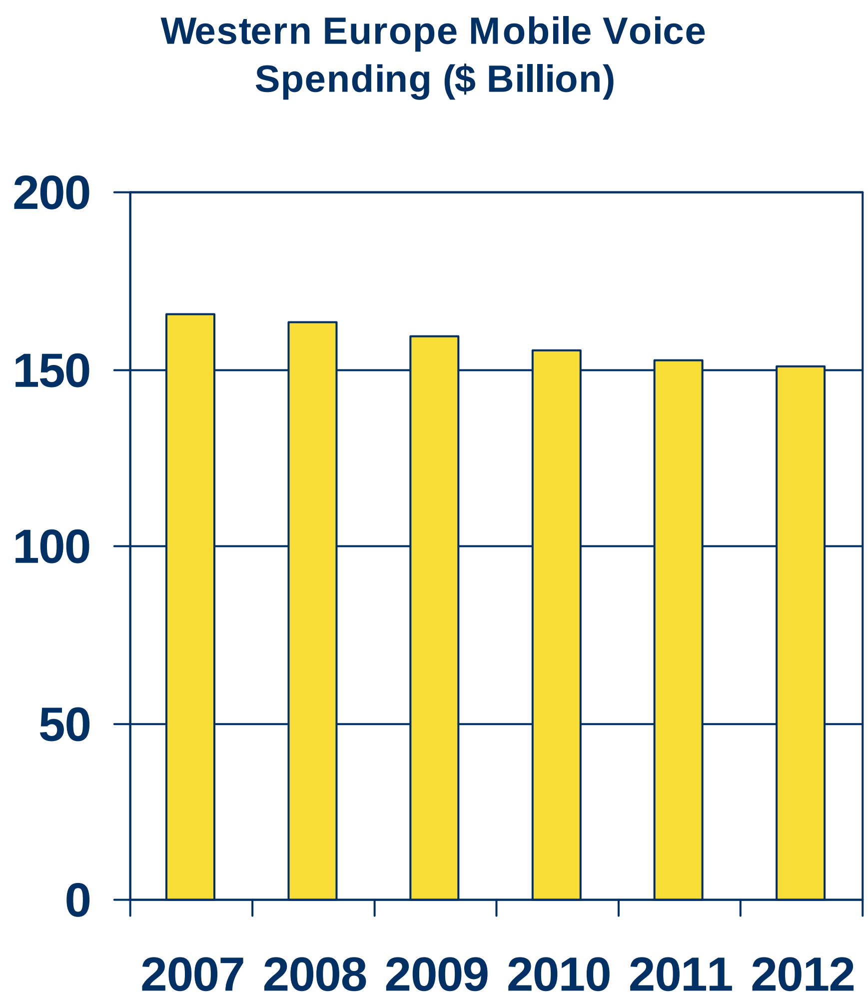
- Mobile voice revenues levelling off
  - Declining already in Western Europe
  - Will start to level off in Bulgaria
- Price competition will continue to rise
- Regulatory pressures to cut interconnection and roaming fees
- Still primarily a voice business
- How to avoid decline?



Declining Fixed-Line Subscriptions

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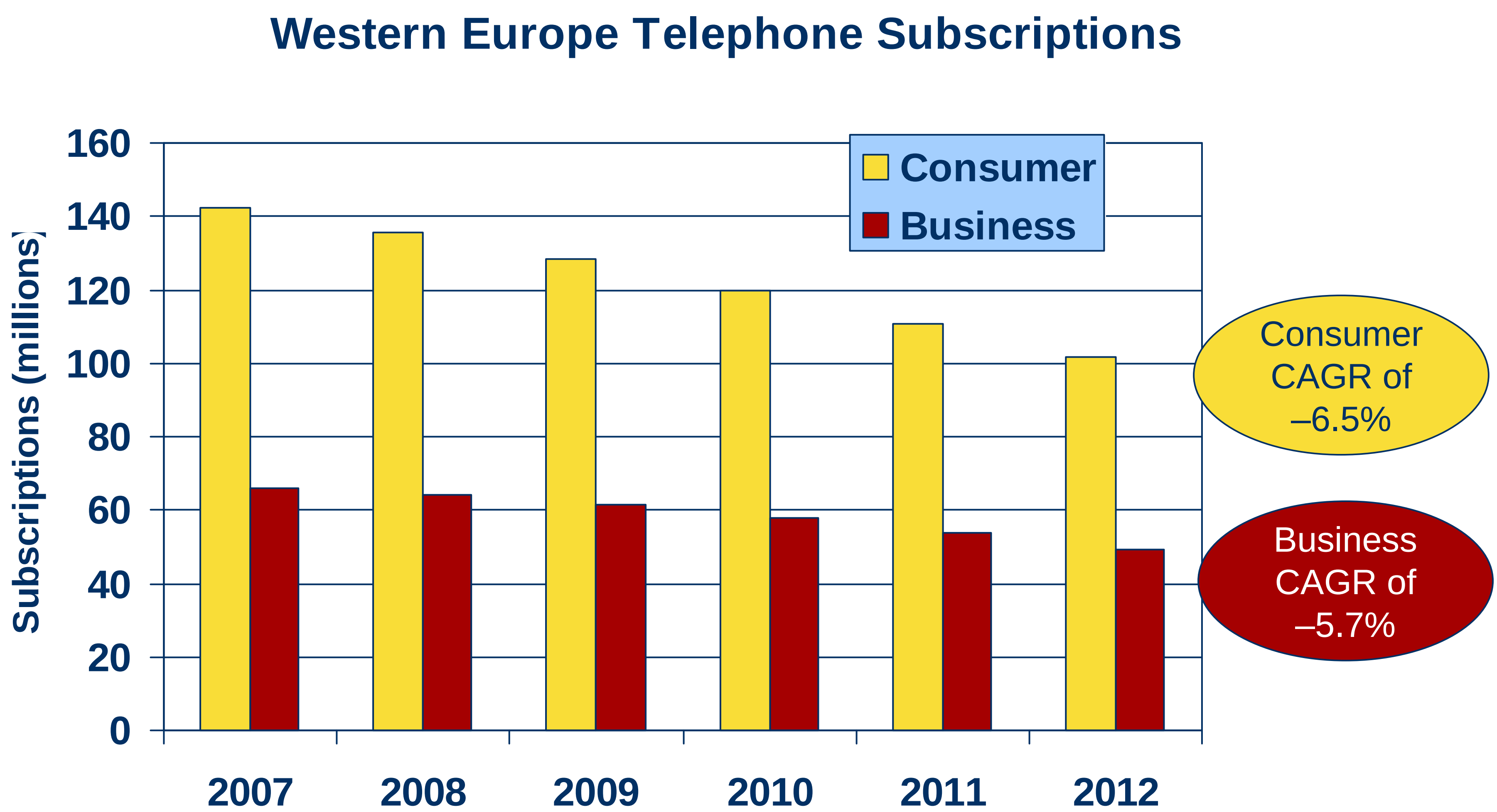


Source: European Telecom Services Database, Q2 2008

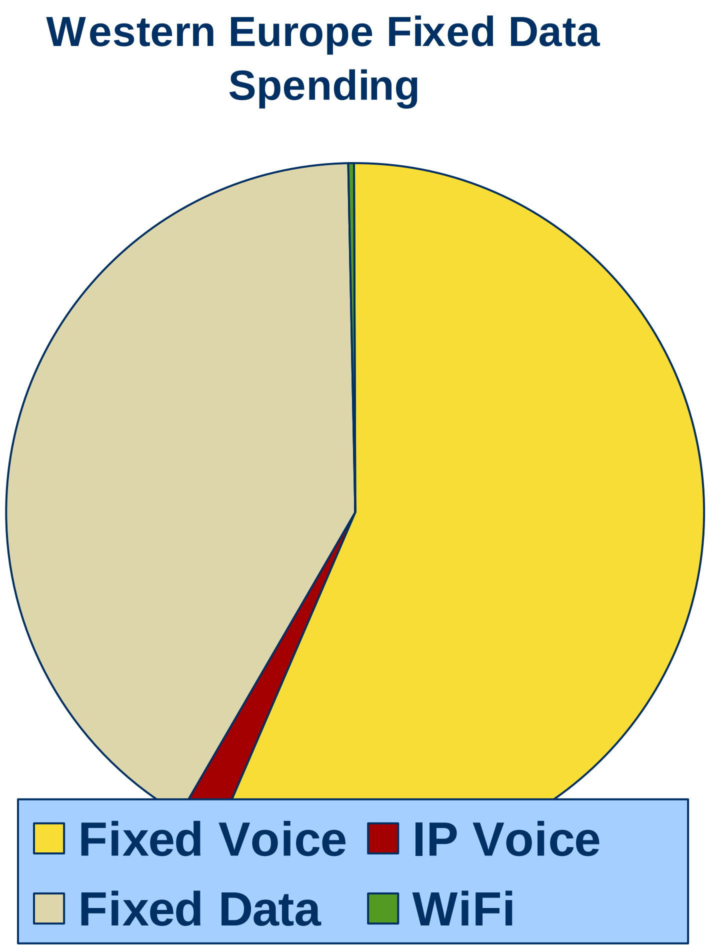
Focus Has Shifted to New Services

Broadband comes first

- Deploy ADSL
- Upgrade to faster speeds
- Guaranteed bandwidth, static IP address, etc.

But corporate data services at the same time

- Expand beyond legacy technologies
- Expand user base
- Expand range of services



Source: European Telecom Services Database, Q2 2008

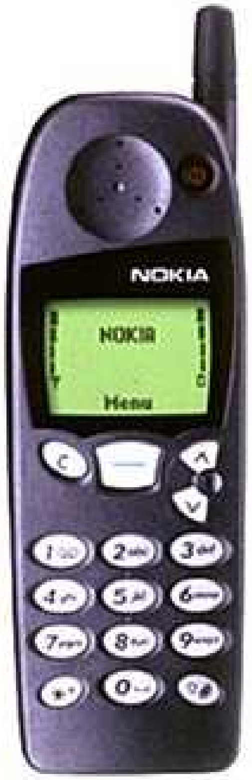
The Same Thing For The Mobile Industry?

Many attempts to launch other services have disappointed

- WAP
- GPRS for GPRS' sake
- MMS
- Walled gardens
- Video calling

Common denominators:

- Devices weren't ready
- Ecosystem wasn't ready
- Operators wanted too big of a share ("owning the customer")



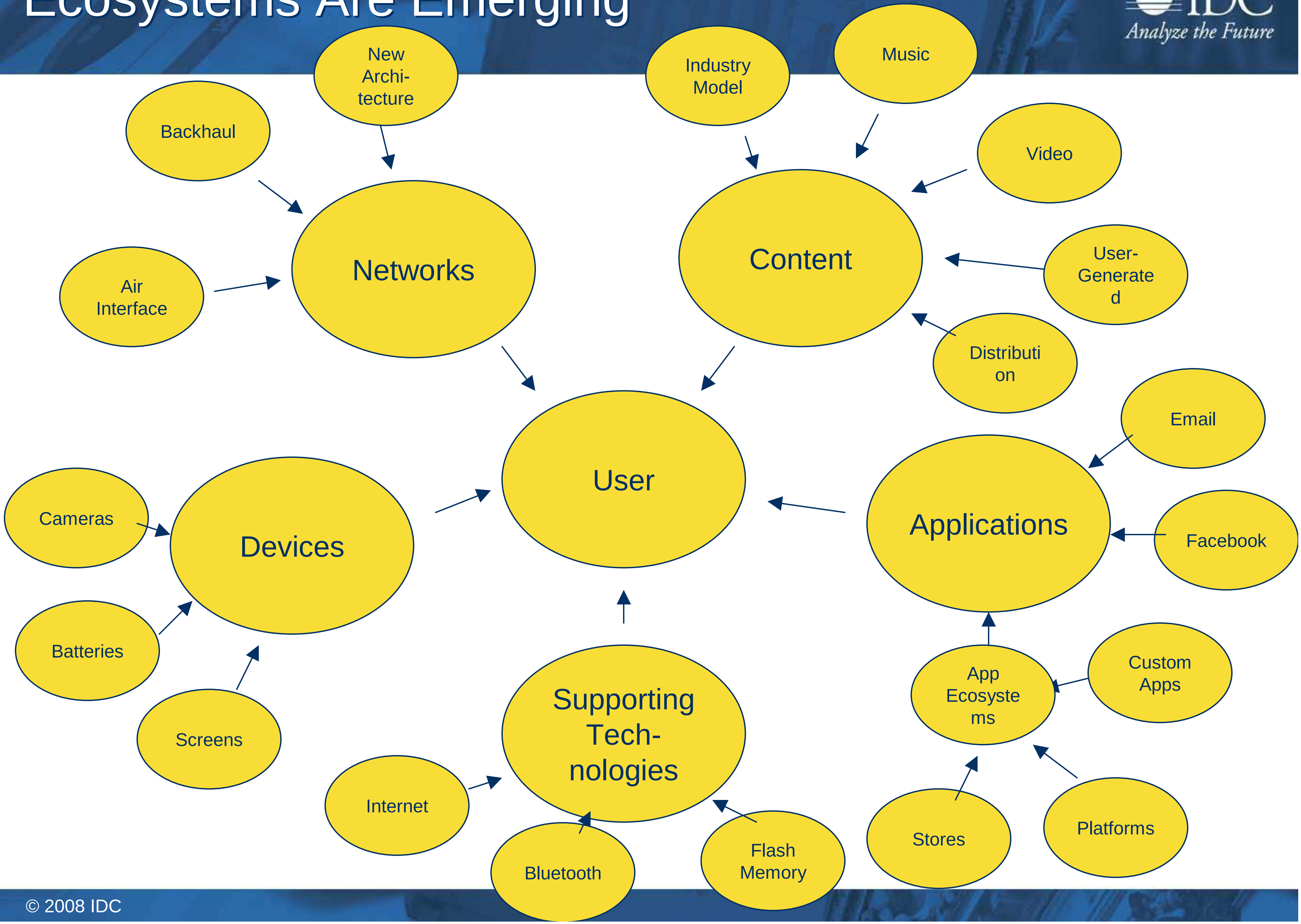
Open Standards vs. Proprietary

- When an ecosystem does not exist, a single company has to fill the gap.

- Sometimes, an ecosystem exists, but it doesn’t do the job.

- For robust development, an ecosystem is needed. But where it is not getting the job done, a single integrated solution may find an opportunity.

Ecosystems Are Emerging



Timing Is Everything

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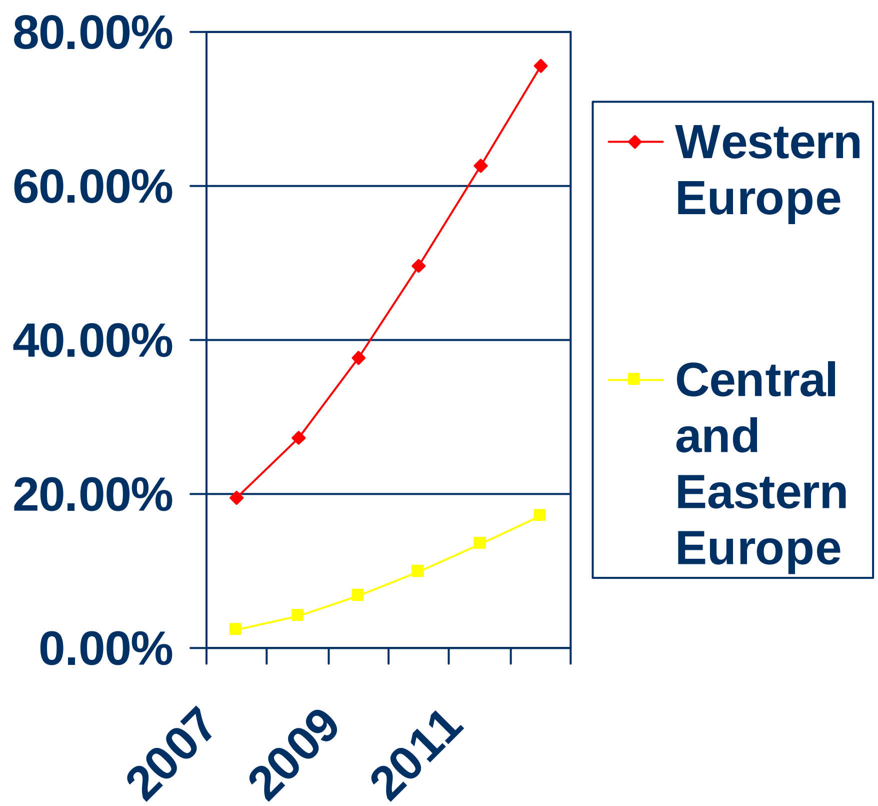
Western Europe's problem was timing

- Reached the peak of mobile voice well before mobile data and devices were ready
- Tried to deploy networks in early 2000s, before networks were ready; then did deploy before devices were ready

CEE's advantage: timing is right

- First waited to deploy networks (no waste on 3G licenses and on networks that won't be used
- Move to mobile data is happening at same time as devices are finally ready

3G Subscriptions Portion of Total Mobile Subsccriptions



Analogy From The Past

Think back to the emergence of the Internet: A huge ecosystem was in place before it could take off.

- In US, PCs were penetrating businesses and homes, just for word processing and other basic apps
- Telephones that could handle low-speed data connected every home
- Modems were cheap and then built into PCs
- Networking technology emerged and came down in price
- Integrated walled gardens showed the way (AOL, Prodigy)
- With everything in place, the Internet boom could happen

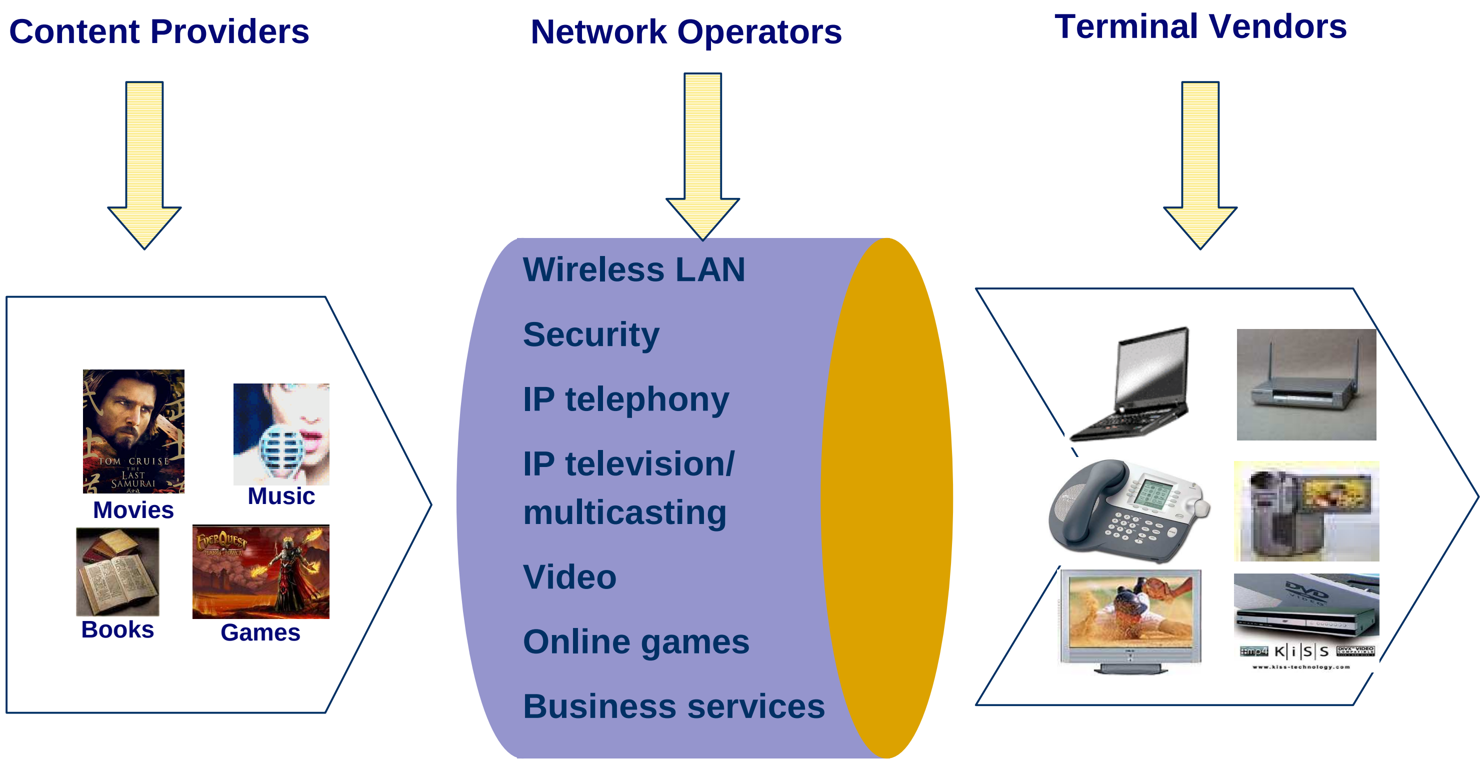
- Same thing will now happen in mobile space

These Changes Alter The Telecoms Value Chain

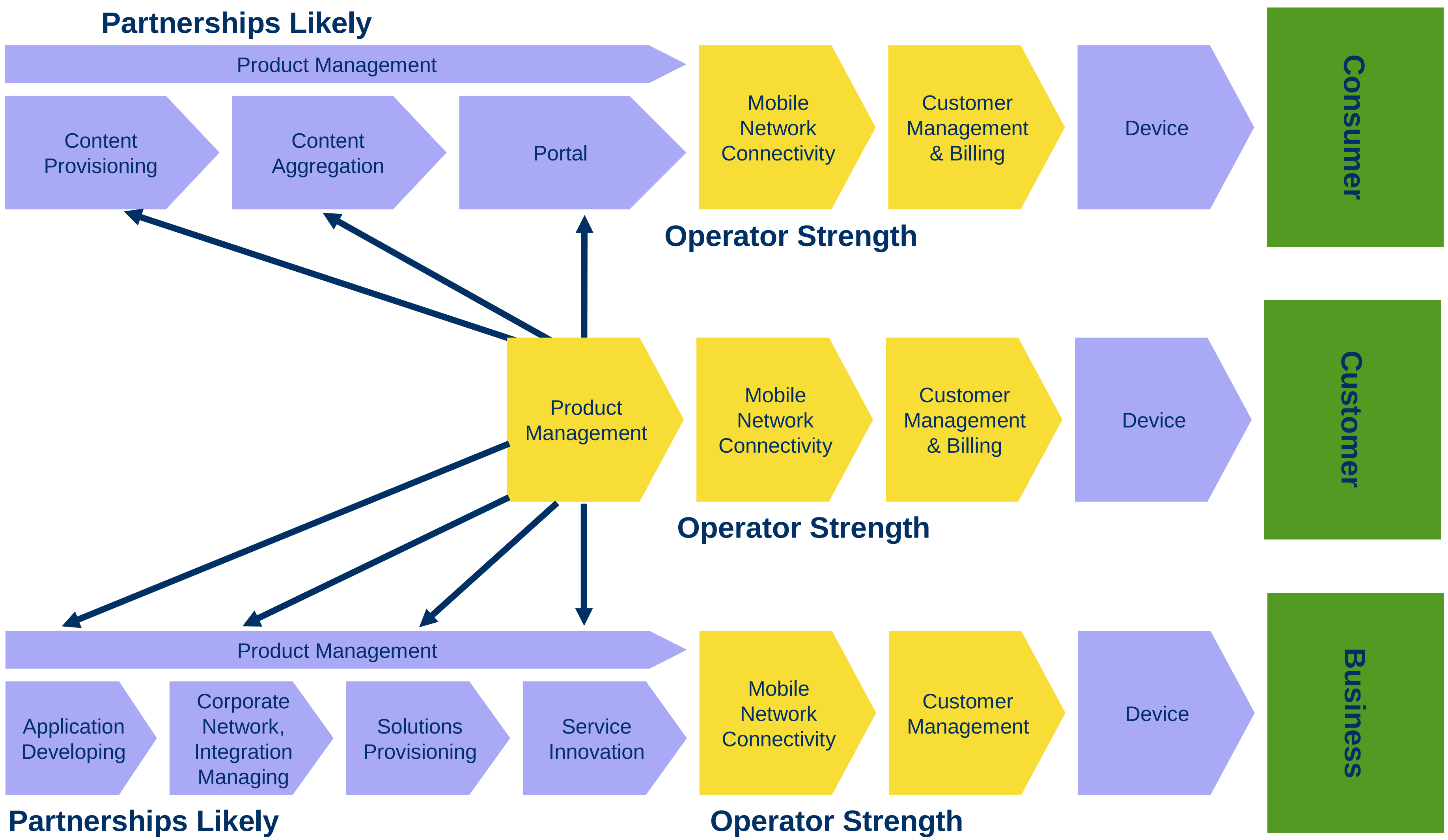
The Old Business Model

Extending the Carrier Value Proposition

Network Operators Need Applications to Protect and Extend Their Position in the Value Chain



Shift Toward New Services Changes The Value Chains



Changes Also Open Telecoms To New Competition

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Traditional	Mobile Substitution	Expanded Universe
BTK	Mtel it's your voice.	Google
ISPs	GLOBUL COSMOTE GROUP	facebook
Others		Joost
		Microsoft
		hp
		skype

The Right Background for The New Environment?

Traditional

- Old
- Authoritarian
- Networks for connectivity
- Proprietary
- Silos

Web 2.0

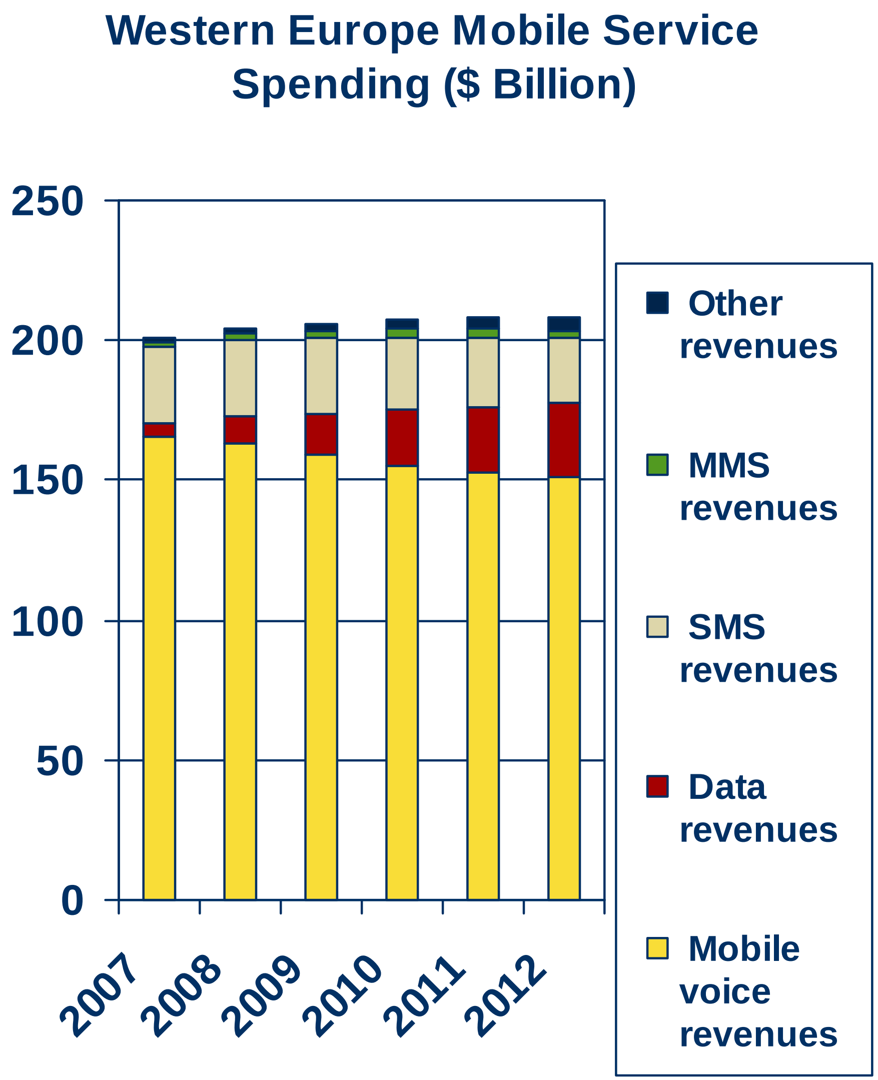
- Open standards
- Collaborative
- Service-oriented
- "Interprise"
- Intelligent networks

Who Will Benefit?

- Operators?
- Handset Vendors?
- App and Content Owners?
- Google?
- Integrated Solutions?

Results of This Shift

- From revenue perspective, mobile data offsets voice weakness in WE
- In Bulgaria, voice is still growing, with data on top – more positive than in WE
- The chart does not include extras like mobile advertising revenue, app sales, games sales, content subscriptions, etc. – Real picture would be even more positive
- Operators will not get as large a share of the total, though



Who Gets The Revenues?

- Operators can leverage their strengths; they will get a big piece of the pie
- Over the tops will win a share of the traffic and revs; operators must offer better value (East of use? Quality? Content bundle?)
- Solution integrators will get a nice part of the pie
- Do phone vendors need to be solution integrators to succeed?

What Does It Mean For Users?

Short Term

- Lots of potential; not as much delivery
- Good ideas, badly executed
- Good ideas, ahead of their time
- Good ideas, but no sustainable business model
- Lots of time on hold with customer service
- Expensive to implement and manage
- Wasted investments and insufficient training
- Advantages to companies who push ahead with the right solution ahead of competitors
- Occassional services, ideas, business models, and companies that prove to be gems

Long Term

- Bandwidth everywhere all the time
- Seamless session handover
- Open standards, but still tight integration of mass solutions
- Completely change the way businesses operate:
  - Field service
  - Police
  - Sales teams
- Completely change the structure of economies (outsourcing non-essential tasks?)
- Completely change the way consumers communicate and consumer information
- Completely transformation of several industries, especially:
  - Media
  - Telecom
  - Software (Saas?)

Not Just Business

Police

- Patrol-to-patrol and patrol-to-command communication
- Access to criminal, vehicles, etc. records and reports
- Localization and route planning

Public safety

- Patrol-to-patrol and patrol-to-command communication
- Access to fire, flood,…emergency reports
- Localization and route planning

Social services

- Communication with offices and citizens
- Access to child, family, elderly, etc. cases, records and reports
- Localization and appointment scheduling

Road, housing, environmental management

- Communication among team of workers
- Access to planning, construction, and maintenance records
- Localization and service scheduling

Questions?

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