



The Road to 100M Connections



What does the consumer want today?

USER NEEDS AND WANTS

- Any content, anywhere connectivity, always on
- Share self created content, simple to use and secure
- High service quality at greater speeds
- Multiple devices / one account
- Affordable and economical service
- On demand nomadic media

APPLICATIONS

Bandwidth hungry, real-time

- Immersive social networking
- P2P Video, bit torrent traffic
- Music, multi player gaming
- Mobile search with multimedia



DEVICES

Not just Mobiles connected consumer devices..

- Internet exploding (Video, VoIP, smart-meters, smart sensors, cameras, surveillance)
- Media – games, music, TV, DVD



Demand for capacity translates into a demand for speed

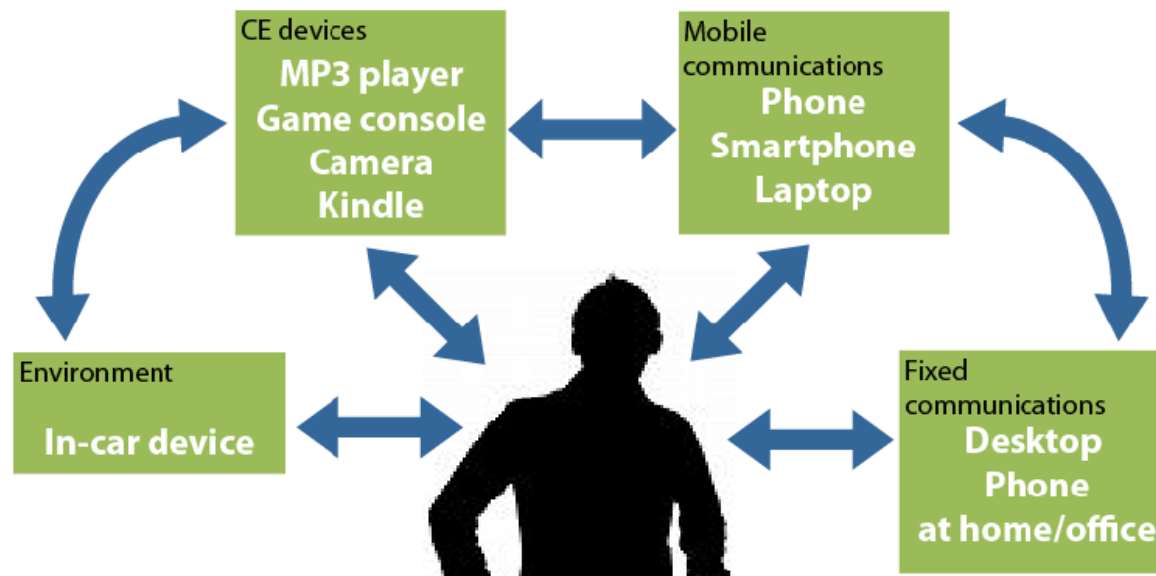


Key considerations:

A new Subscriber Approach

Moving beyond devices to reach the subscriber ...

- ❑ The cellular model of one – device, one user, one – ARPU slows down adoption of wireless devices
- ❑ Operators will move from managing devices to managing subscribers



Key considerations:

Life beyond the one device/one ARPU / one user model

One user, one device, one ARPU	Open service model
One user per contract	Vertical applications include many connections
One device per subscriber	Multiple (and increasing) number of devices per subscribers
Devices are mostly phones or laptops	Increasingly CE devices complement phones and laptops. In-vehicle, M2M application-specific devices
One ARPU per subscriber	Some devices may have no ARPU, some have high ARPU, some low
Limited plan selection	Wider range of plans and service providers over the same network
Best-effort service	Traffic can be prioritized to improve market segmentation
Device subsidy	Subsidies not required on secondary devices
Service provided directly by operator or MVNO	Device vendors or content providers may sell the service



Two different strategies

MORE SUITED TO 3G

The 'ubiquitous' device



- Games
- TV
- iPod
- Web browser
- Email client
- Home movie maker
- Broadcast streaming
- Messaging
- VoD
- Office work
- Camera

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Multiple devices & networks



Both strategies require wireless broadband capacity

MOBILE COMMUNICATIONS

MOBILE COMPUTING

Seamless mobility IP connectivity and IMS

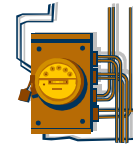
The "Internet of Things"



Fully passive sensors eg. RFID & Surface Acoustic Wave (SAW) to Active Sensors eg. Gas Detectors, cameras

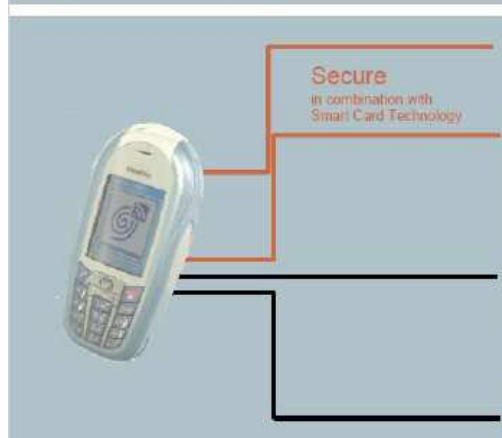


Energy – 'smart-meters' connecting homes to grid



'Smart' Medical Monitoring

RFID/NFC Use Cases



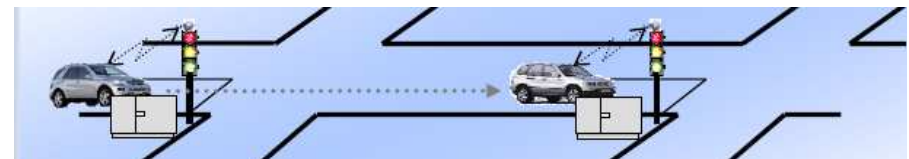
NFC Phone – Mobile ticketing/ payment & transaction, P2P communication



Car to Traffic Infrastructure
Car to mobile devices
Car to Car



Connectivity



Vehicles carry control information from one crossing to the next

