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TELECOMS SOFTWARE IT SERVICES

ITU/MIC Workshop on Shaping the Future mobile information society Panel: Market Drivers and Inhibitors

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Agenda

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- The 'always on' vision
- Mobile Technologies Drivers and Barriers
- Demand side Drivers and Barriers
- Supply side Drivers and Barriers
- Policy and Regulatory Issues
- Conclusion



The vision



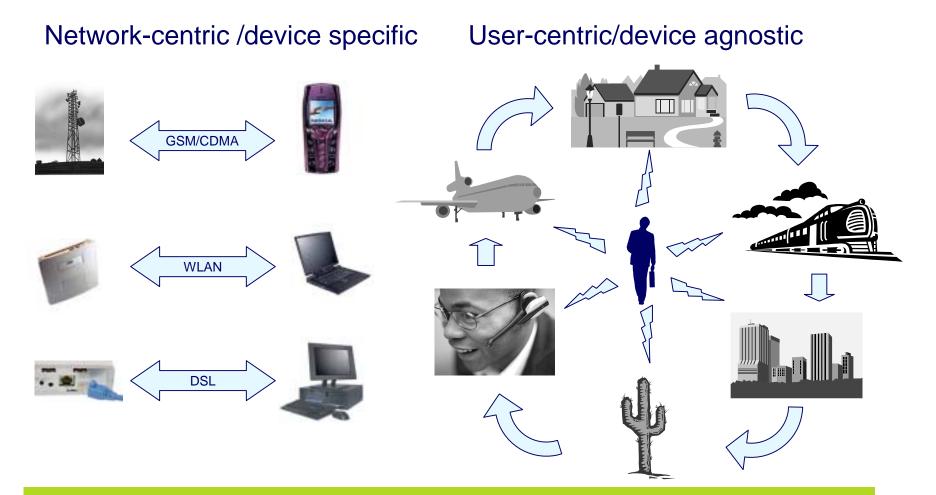
What do we mean by mobile information?

- We use the word information to refer to digitally stored data. This can include for example:
 - **Personal data** such as schedules, agendas, calendars and email
 - <u>Home data</u> such as activating and monitoring specific devices and applications in the home environment
 - <u>External data</u> such as news updates, sports updates, specific information related to your business environment
 - *Entertainment* such as wireless access to music, games and films
- By mobile we refer to access over a wireless network

Mobile information is the ability to access the types of data described via a variety of devices with wireless network connections

Moving towards the mobility paradigm

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Optimum connectivity and seamless mobility anytime, anywhere

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Mobile technologies

Mobile technologies

Drivers

- 3G is fast becoming a reality
- 802.11 (WiFi) technology has seen worldwide deployment
- 802.16e technology promises to capitalise on this
- Mobile device technology is improving quickly

Barriers

- UMTS (particularly) 3G is still a work in progress
- Using WiFi in hotspots is a chaotic experience (roaming)
- Battery technology is slow to improve

Technology development and advance is uneven



Demand side

Demand side drivers

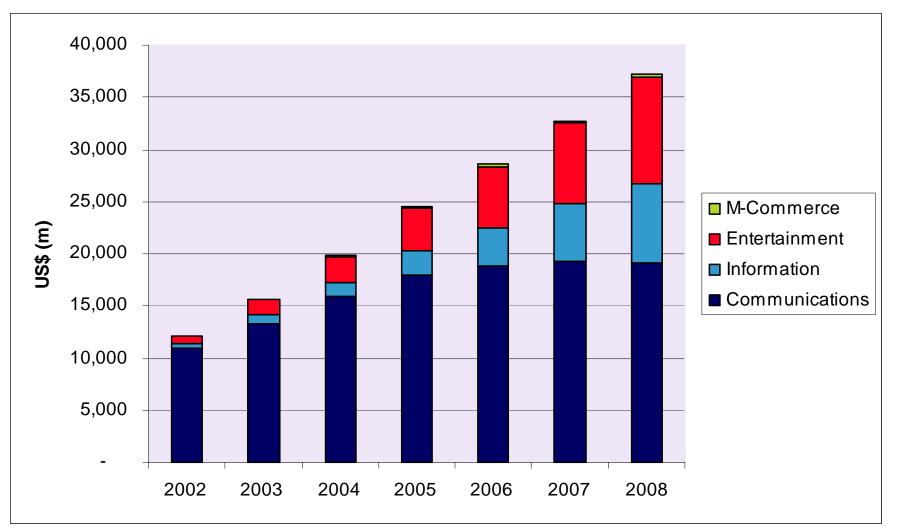
- Cultural drivers some markets are keen adopters of new technologies
- Youth segment keen adopter of new technologies.
- Wireless messaging is driving data usage and is paving the way for photo, picture and video messaging
- Early 3G voice pricing is attracting users
- There is a growing need, esp. in the enterprise, to access information while on the move

Demand side barriers

- Cultural shift consumers are not used to accessing data via wireless and the shift to wireless access will take time
- There are many substitutes which currently work much better e.g. fixed line access, traditional media sources
- Pricing of wireless data services is perceived to be high
- Network speeds can be an issue to support wireless data
- Mobile speed overshadowed by fixed broadband experience
- Low penetration of MMS phones means frustration for early multimedia messaging adopters
- High speed coverage is fragmented rather than ubiquitous



Data ARPU by application





Supply side

Supply side drivers

- Suppliers need to look for new revenue streams and wireless data presents a good opportunity
- There are 1 billion GSM subscribers another billion by 2008!
- Mobile operators are able to collect small, per-item payments for digital content via the phone bill/prepaid credit
- The principle of paying for usage is well established in mobile networks (unlike the internet)
- Convergent services present a good revenue opportunity lots of systems integration work

Supply side barriers

- Competition is fierce and there is downward pressure on pricing
- Interoperability issues are costly to resolve-networks and accounts
- Wireless as a channel for new players e.g. content providers is not proven (revenues are low)
- Business models (User demand & uncertainty)
- Data services are expensive to develop and market
- Wireless security is still a problem in the enterprise
- DRM is still primitive, and not yet trusted by content owners



Policy and Regulatory Issues

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- Regulation on wholesale prices
 - e.g. Roaming (national/international)
- Mobile network liberalization
- Mandated roaming arrangements
- Regulation applied to address governance and "dominance" of SMP operators resulting in negative effect on provision of services
- Bundled services-demand side driver but supply side barrier
- Regulation related to Privacy & Security e.g. Spam mails, adult content etc.



Mobile information society is approaching reality!

Thank you!