World Class Standards

3G/UMTS
Lessons Learnt

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GSM…younger than ever

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3G/UMTS Vision…

- 3G will take the personal communications user into the new era of the information society
- 3G will deliver information, pictures and graphics direct to people & provide access to information based services
- 3G will build on the foundation of 2G to forward mobile and personal communications by offering a host of value-added services
- 3G means services anytime, anywhere
- Etc.

3G/UMTS Story…

- 3G technology is rapidly losing favour in Asia & around the world…
- W-CDMA is experiencing unusual delays and snags…
- Analysts have reduced their expectations for W-CDMA.
- 3G or not 3G…
- 3G is dead…
- 3G's little dark secret…
- etc.

What went wrong?

- Lack of harmonization on the 3G Licensing regimes
- Lack of adequate risk evaluation for 3G business plan
- Delays in the development of 3G products
- Killer Applications
- Burst of the Dotcom bubble an additional factor

3G/UMTS – Q & A

SMS

Q: When you can make a phone call in a fraction of the time & have a proper conversation, why bother with typing out a message that has a maximum length of 160 characters using an undersize keyboard?

A: For reasons unknown at the time, SMS has been very successful

Video telephony & MMS

Q: Have video telephony and MMS been successful?

A1: Compelling ideas, but neither one has been particularly successful

A2: What we're seeing is that the younger generation are more comfortable using video phone, but as yet, it doesn't seem to have many fans

A3: Yes, both have been taken off, it is just that expectations were much higher than the reality

A4: Although it has taken 3 years, we are now seeing penetration of usage of MMS rising quite considerably

3G/UMTS – Q & A

Q: What about ARPU?

A1: Despite the intention of Western mobile operators to develop a broader range of non-voice services, data ARPUs are still dominated by basic SMS person-to-person messaging

A2: Japanese and South Korean operators generate a significant proportion of their total revenue from data services, other than basic SMS person-to-person messaging

3G/UMTS Progress...

- Over 140 commercial W-CDMA networks are in operation…
- Over 100 million subscribers in over 70 countries worldwide…
- Over 40 W-CDMA networks launched in 2006…
- W-CDMA has the highest growth rate of any mobile system…
- During 2006, there were 4 million new W-CDMA customers each month…
- Over 140 operators committed to deploy 3G HSDPA…
- Over 90 W-CDMA networks offering commercial HSDPA services…

3G/UMTS Progress…

- W-CDMA is robust and fully operational…
- 3G has reached 40% penetration in Japan and South Korea…
- Over 180 3G/UMTS terminals and PC cards are commercially available…
- Latest 3G terminals are comparable with 2G handsets, in terms of battery life, weight and size…
- 3GPP continues on developing world class standards…

3G/UMTS – issues that require attention!

- Regulators are reluctant to influence technology choices!
- Technology Neutrality is supposed to provide a level playing field!
- Spectrum Trading provides new options for the underutilized frequencies!
- The purpose of the frequency band should be retained!
- New applications and usage scenarios!

Summary

- 3G / UMTS is already a commercial reality & success
- 3G / UMTS uses a globally harmonised spectrum and builds on GSM economies of scale
- With W-CDMA's HSDPA / HSUPA, mobile operators can significantly boost the performance of their networks & offer broadband services
- 3GPP IMS offers the platform for 3G evolution & convergence
- 3GPP continues on developing world class standards
- IEEE technologies such as WiFi & WiMAX present a valuable complement to operators' cellular portfolios

Thank you