

An Industry view on Standards for the ICT domain

Standards and ETSI – why do we want them?
A mobile operator's view!

Alan Cox, 30 November 2005

Vodafone

- Vodafone won a licence for UK cellular in late 1983
- First to launch (analogue) service in January 1985
- Grew into an international group of mobile operators
- Now have operations through members, associates and partners in over 40 countries with 171 million customers
- One of the largest companies by capitalisation in Europe
- All but US and Japan run GSM, many now run 3G services – investment in 3G cost around £30-40 billion
- Vodafone Live! is our world famous portal, offered by most of our networks

What are Standards?

- Standards are the specifications for how our mobile systems work
- Without them, we would not be able to have terminals from multiple vendors, or roaming or even interconnect, so our business would be dead!
- We are specifying the technical standards, not generally the quality
- Standards are generally about interfaces – how one unit relates to another, so essential across all telecoms

Are they important?

- We could have a purely Vodafone standard – we are large!
- However, we have interests in just 40 out of over 600 networks in 200 countries
- Thus we would lose benefit of scale and roaming
- Sometimes quicker to create a “house standards” but no use if you cannot interwork
- We want to influence standards to ensure they work in our favour – so an interesting balance between our company interests and agreeing with everyone to ensure we have a workable system
- So we work closely with our competitors, suppliers, regulators and others

Success and Failure

- GSM has been a great success (over 1 billion users) with strong input from Vodafone. Without our early input:
 - might have been aimed at car phones not handies, no network selection within a country, very poor battery life, far more base stations for coverage, no SMS/MMS, difficult roaming, expensive equipment, little security....
- Things can go wrong:
 - GPRS is very inefficient – we decided not to work on this at a critical time (other priorities). 1 man year could have saved us £100s of millions now.
 - WAP did not work – vendors tried to by-pass us
 - We did not implement NITZ which allows us to rebrand
 - 3G late due to Japanese timescales ahead of ours?
 - ...

Where are standards created?

- 3GPP for basic operation of GSM, GPRS and 3G
- OMA for service enablers
- GSM Association for Operator needs – roaming etc
- Liberty Alliance for Identity Management
- JCP for Java
- W3C for web standards
- ETSI TISPAN for fixed networks, SCP for the SIM, ERM for spectrum co-existence...
- ITU for spectrum
- a lot more specialist groups
- ... in meetings in Europe and all around the world!

Why ETSI?

- European Telecoms Standards Institute
- Has highest reputation as **the** place for telecom standards
- European base so can fly short haul!
- Basis of many world-renowned standards such as GSM from 3GPP, with Mobile Competence Centre
- Partnership with US, Japan, China, Korea
- Recognised by EU and ITU – and most other standards bodies
- Overheads lower with more projects to share these costs

The Business Case

- Standards are technical and usually very complex
- Yet of no value if not supporting our business needs
- Some services invented by Vodafone, but most by others in committee – competitors and suppliers
- Difficult to justify certain service enablers
- How will a new service make a profit? Billing & Charging
- What is the value add, or just a bit pipe value?
- SMS was launched without a proper billing capability
- MMS was nearly launched without a business strategy
- Years of work on Location (very popular) but how to profit? Maybe not as a service itself but as part of another?
- All projects must be checked for business model

Costs

- Vodafone's current standards budget many £million a year
 - Staff and travel costs are the largest item
 - Around 30 staff working primarily on standards
 - Membership costs for ETSI and other standards bodies around 10%
- However, standards benefit 40 companies in Vodafone
- Costs are shared across all members of ETSI and other bodies – much cheaper than if we had done it alone
- Gearing high -
 - Vodafone would not exist today without standards
 - Standards have major impact on our profitability
 - Individuals in meetings can affect our destiny
 - We need more business input to ensure profits!

Where are we going?

- Time between generations reducing – cannot be complacent in a very fast moving world
- Increasing merging of telecoms and IT into ICT – IT houses are now much more involved with standards
- Good view of new market opportunities from standards
- Commercial aspects much more visible – concerns over Intellectual Property Rights and patent policy
- Vodafone is a leading player in re-examining IPR Policy
- The cost of standardisation is small in comparison with the risks to profitability, so high gearing
- The future looks uncertain but exciting!