



ITU Workshop on Standards and **Intellectual Property Rights** (IPR) Issues

Inclusion of Software In Standards

Hung C Ling Corporate Standards, Alcatel-Lucent

Alcatel-Lucent Major Goals in Standards

- Create standards that satisfy customer needs and stimulate growth of communications markets.
- Develop standards-compliant products and bring them to market quickly.
- Bring innovative technological solutions from research status into standards development.

Alcatel-Lucent views standards activities as important opportunities

to interact with other industry participants and, in particular, with customers

to satisfy near- and long-term needs for interoperability, open systems, multi-vendor compatibility, and safe and efficient operation.

Alcatel-Lucent Participation in SDOs

- As a networking and technology-oriented company, we work with organizations whose specifications
 - Impact products that are important to our customers
 - Strongly influence long-term directions
 - e.g. forward-looking products, creating or expanding markets
- As a global company, we are proactively involved in a wide variety of
 - International, regional, and national standards bodies,
 - Consortia and forums,
 - Trade associations
- We work closely with government agencies that establish regulation and requirements for telecommunications products.
- We actively participate in various global forums to eliminate technical barriers to trade.



The Innovation/Standardization virtual circle



Including IPR in Standards

- As a networking and technology-oriented company, Alcatel-Lucent contribute innovative technologies to the standardization process globally
 - Minimize multiplication of technical standards with similar end-point requirements
 - Manufacture same or similar products for diverse regions globally
- As a global company, we aim to ensure similar SDO rules on including IPR in standards
 - Active representation on standing IPR/patent committees of major SDO
 - Participation in ad hoc groups when formed
- Copyright
 - A form of intellectual property distinct from patents
 - Protection of a particular (exact) expression: text and software in ICT standards
- Software Copyright
 - Participated in discussion in ITU (2002, 2011), ANSI (200x), IETF (2008), ETSI (2010)



Including Software in Standards

- A technical standard is a set of established norm or requirements. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes and practices
 - -Competitors can build interoperable products based on a standard
- Software can represent one way of expressing certain requirements
 - -However, mandating the use of "one" software in a standard prevents implementers from developing their own (and may be more innovative) software
 - -Alcatel-Lucent in general does not favor including software as normative elements of a standard



Including Software in Standards (possible exceptions in Alcatel-Lucent view)

- Under some circumstances, a software description of requirements can be easier, better than the use of textual (language) description
 - -It is easy to understand E=mc² (at least for engineers and scientists)
- Software may be useful for testing the output of various implementations of a standard (cannot be mandatory)
- Software can be used for direct adoption by implementers at their option (cannot be mandatory)



Software Copyright related to Standards

- Appropriate and sufficient rights must be granted to SDO and implementers to use software included in standards
- If choosing to directly incorporate software (included in standard) into products, implementers need to be willing to negotiate a license with the Software copyright holder unless such copyright is waived by the copyright holder
- Detail discussion will be provided by ITU, ETSI and ANSI in this panel
- Treatment of Software copyright is different from Patent rights



Main Considerations — in conclusion

- Inclusion of Software into a standard should be carefully considered based on
 - -Does it simplify the description of requirements?
 - -Does it prevent implementers from innovating subsequent to approval of a standard?
- Patent Policy controls the treatment of any essential patents underlying software incorporated into standards
 - Specifically stated in ANSI, ETSI, IETF, ITU guidance on software or codes



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