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Divergence and Harmonization

Chinese Response to IEEE's One Standard Statement

Chinese National Body

Date: 2005-08

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Introduction

The following presentation is part of a series of responses by Chinese delegation to IEEE's document titled: "Options for Resolving Issues related to WAPI and 11i in ISO/IEC JTC1/SC6" and related documents submitted to Beijing Meeting.

This document discusses the concept of "one worldwide standard". It presents CNB's understanding of this concept and points out the aspects that should be taken into consideration.

Summary

- One standard should not be over-read or misinterpreted.
- One standard should not be interpreted as “one developer”, one forum, or one source
- One standard should not prevent independent development of technologies based on base-line
- One standard should not be used as an excuse to block innovation.
- One standard should not create or justify monopoly.
- One standard does not eliminate choices
- One standard does not deny exception

We Share the Same Goal

- **Chinese National Body is a P-member of ISO/IEC.**
- **We share the same goal of "One Standard, one test, and one conformity assessment procedure accepted worldwide."**
- **One standard achieves interoperability**
- **Chinese submission of WAPI for international standardization helps reach this goal.**
- **It is a member's contribution to ISO/IEC.**
- **This is also a contribution of China to the International community.**

ISO/IEC Creats the One Standard

- **ISO/IEC are International Standardization organizations with over 146 national members**
- **Each national member is entitled to one vote**
- **ISO/IEC standards are the most influential and most trusted standards in the world.**
- **ISO/IEC standards are developed through fair, open, responsible and due process.**

China and ISO/IEC

- **Chinese National Body is a P-member of ISO/IEC.**
- **China has obligations as well as rights in ISO/IEC.**
- **China respects ISO/IEC standards as an one standard.**
- **China has adopted thousands of ISO/IEC standards as Chinese national standards.**
- **If WAPI is adopted into ISO/IEC, it will become part of the one standard.**
- **It is a reciprocal process between China and ISO/IEC.**
- **It would benefit both China and ISO/IEC.**

IEEE and ISO/IEC

- IEEE is a C-Liaison in ISO/IEC
- IEEE standards are submitted through BSI.
- There is a SC6-IEEE agreement.
- IEEE is allowed to contribute to ISO/IEC standards
- The contributions are recognized
- IEEE has also benefited from ISO/IEC process

IEEE Benefits from ISO/IEC

- The main value of making use of ISO/IEC in the development cycle is to benefit from the wider audience that SC 6 is able to offer for the review process. This ensures that in addition to the usual rigorous technical appraisal carried out by IEEE 802 WGs, the opportunity exists for account to be taken of regional and national perspectives which may otherwise be ignored. The end result is a specification about which there is overwhelming - global - consensus. To lose this element of the development process would be significant and in some way diminish the final product.
- -- extract from SC6-IEEE cooperative agreement (6N11917)

Does One Standard Mean Exclusive Right?

- China National Body has agreed to SC6-IEEE cooperation agreement
- But we are concerned that it may be misinterpreted as giving exclusive right to IEEE
- Nothing contained in that agreement gives IEEE the right as the exclusive develop of ISO/IEC LAN standards.
- Such exclusive right is neither a fact nor a sound policy.

JTC1: IEEE Has Exclusive Right

- **JTC1 View:**

  In the mid 1980s, an agreement was reached between the former ISO/TC 97/SC 6 (now ISO/IEC JTC 1/SC 6) and the IEEE that all work related to Local Area Networks (ISO/IEC 8802) would be carried out via the IEEE and subsequently submitted to ISO/IEC for endorsement/approval.

– JTC1 Letter to China NB, 1-28-05

IEEE: We Have the Exclusive Right

- **IEEE–JTC1/SC6 Relationship Dates to 1983**
- ISO/TC 97/SC 6 (before JTC1's creation) decided in 1983 (Tianjin, China) that all work related to local area networks would be carried out in IEEE 802 and then submitted to ISO/IEC for accelerated endorsement and approval.
- In 1993, JTC1 introduced a document numbering scheme to parallel that of IEEE 802.
- In November 1999, a IEEE 802 became a Category C liaison with ISO/IEC JTC1/SC6/WG1 (along with former WG3).
- -- from IEEE submission N13-1

Another Thinking

The Fact about ISO/IEC TR 8802-1

- TR 8802-11 contains non-IEEE contributions to ISO/IEC WLAN standards
- IEEE is not the sole contributor to ISO/IEC LAN standards
- IEEE has never been the sole contributor to ISO/IEC LAN standards in the past
- IEEE will not be the sole contributor to ISO/IEC LAN standards in the future
- IEEE shall never be the sole contributor to ISO/IEC LAN standards.

TR8802-1Scope

- Therefore in **the general case this technical report will catalogue both those IEEE 802 standards already published as ISO/IEC International Standards, together with any International Standards approved via the Fast track procedures of ISO/IEC [Clause 2, References] as well as any IEEE 802 standards endorsed via the mechanism of cooperative working described here [Annex B].** New editions of this technical report will record successive endorsements by ISO/IEC of IEEE 802 standards published under these cooperative arrangements together with any commentary agreed by ISO/IEC JTC 1 National Bodies.
- Source: TR8802-1
- Comment: TR8802-1 contains standards other than IEEE's

TR8802-1 Contents

- This technical report therefore provides a source of reference to **all International Standards that relate to local area networks; specifically the ISO/IEC 8802 technologies and FDDI;** and in addition is the location where ISO/IEC JTC 1 SC 6 involvement in IEEE 802 standards development is recorded and any endorsements to particular IEEE 802 standards is noted.
- Source: TR8802-1
- Comment: What is FDDI?

The Facts about FDDI in TR8802-1

- **Source: CISCO Systems, Inc.**
- **http://www.cisco.com/univercd/cc/td/doc/cisintwk/ito_doc/fddi.htm**
- **FDDI was developed by the American National Standards Institute (ANSI) X3T9.5 standards committee in the mid-1980s. At the time, high-speed engineering workstations were beginning to tax the bandwidth of existing local-area networks (LANs) based on Ethernet and Token Ring. A new LAN media was needed that could easily support these workstations and their new distributed applications. At the same time, network reliability had become an increasingly important issue as system managers migrated mission-critical applications from large computers to networks. FDDI was developed to fill these needs. After completing the FDDI specification, ANSI submitted FDDI to the International Organization for Standardization (ISO), which created an international version of FDDI that is completely compatible with the ANSI standard version.**
- **FDDI is similar to IEEE 802.3 Ethernet and IEEE 802.5 Token Ring in its relationship with the OSI model. Its primary purpose is to provide connectivity between upper OSI layers of common protocols and the media used to connect network devices. Figure 8-3 illustrates the four FDDI specifications and their relationship to each other and to the IEEE-defined Logical Link Control (LLC) sublayer. The LLC sublayer is a component of Layer 2, the MAC layer, of the OSI reference model.**
- **Posted: Mon Apr 1 09:09:55 PST 2002**

TR8802-1 Conclusion

- TR8802-1 never give IEEE the exclusive right for LAN standards.
- JTC1 and IEEE's claim does not have factual support.

Divergence, Harmonization and Reciprocal

Concern Over Divergence

- Chinese National Body understand the concern over divergence
- Submission of WAPI to ISO/IEC is to avoid divergence
- ISO/IEC has policies and procedures to avoid divergence
- Every side including China National Body and IEEE shall follow those policies and procedures

IEEE Claims

- IEEE claims that WAPI has to be submitted to IEEE for processing and approval first to avoid divergence.
- It is one option, but not the only solution.
- There are other options which are legitimate and sound.
- They can also avoid divergence and achieve harmonization
- And they can avoid many problems associated with IEEE's approach (to be explained later)
- Chinese NB has made its choice about 10 months ago and was approved by SC6. (another document is under preparation on this point)

ISO/IEC on Amendment and Divergence

Source: JTC1 Directives

- It is JTC 1's intention to avoid any divergence between the **JTC 1 revision of a transposed PAS** and a version published by the originator.
- Therefore, JTC 1 invites the submitter to **work closely with JTC 1** in revising or amending a transposed PAS.

Comments:

1, ISO/IEC can revise a transposed PAS.

2, Amendment can be done in ISO/IEC, not necessary in IEEE

3, IEEE should work closely with ISO/IEC on amendments

Harmonization and Reciprocal

- **To achieve harmonization and to prevent misalignment, a legitimate and preferred approach for National Bodies is to process proposals within ISO/IEC and if adopted into ISO/IEC standard according to ISO/IEC criteria, IEEE shall start a alignment process.**
- **This kind of process is in accordance with ISO/IEC directives.**

Reciprocal is a Qualification

- M7.3 Organisation Acceptance Criteria
- M7.3.1 Co-operative Stance (M)
- There should be evidence of a co-operative attitude toward open dialogue, and a stated objective of pursuing standardisation in the JTC 1 arena. The JTC 1 community will reciprocate in similar ways, and in addition, will recognise the organisation's contribution to international standards.
- Source: JTC1 Directives

Alignment to Achieve One Standard

- 64. It was pointed out that, in case a technical solution could be found which would preserve – in whichever form - both proposals, IEEE would be asked to consider aligning its standards with the outcome achieved to maintain correspondence between ISO/IEC 8802 and IEEE 802, a principle which had been followed and supported by SC 6 over the last twenty years.
- -- from May 17, 2005 Geneva Meeting minutes

Reciprocal Arrangement

- **So far, there is no reciprocal arrangement between IEEE-ISO/IEC**
- **Such arrangement should be made ASAP.**
- **Will IEEE make such arrangement?**
- **It may become a subject for further discussion.**

One Standard and Options

- **One standard does not eliminate options**
- **Options are allowed in ISO/IEC standards**
- **Options are commonly used in international standards**

Conclusion

Therefore, harmonization can be achieved through processing in ISO/IEC and starting an IEEE reciprocal process in addition to the current SC6-IEEE cooperative structure. This is a proper way to achieve “one worldwide standard”.

Reciprocal Helps One World

- China has adopted six thousand of ISO/IEC Standards.
- Now, China submits an advanced WAPI standard as our contribution to IS.
- We wish that the reciprocal principle will work.
- Reciprocal helps build one worldwide standard.