

# 1 section one

## The "In and Out" of ITSC



**Standards is the buzzword in town** for a simple reason that we can't do without standards. In fact, it has all along been with us but few of us has taken note of their existence till we are faced with issues like "Oops, I'll be attending a conference in Japan and my phone isn't a 3G phone and I can't call home as Japan uses CDMA standard versus the GSM standard that we use back home". So we know that standards set the baseline for systems to work and it enables interoperability.

Thay Yean Lan  
Secretariat  
Information Technology Standards Committee

### 1 The "In" of ITSC

So who is looking after the IT standards in Singapore? Well, this uphill task is taken care by the IT Standards Committee in Singapore, which comprises over 300 volunteering members and supported by both SPRING Singapore and IDA Singapore to establish local IT Standards, to promote the awareness of standards and also represent Singapore in international standardisation meetings.

The ITSC is well guided by its Council chaired by Mr Robert Chew from Accenture, and the members come from various industry associations, institutes of higher learning, the academia and the industry. The Council provides directions and guidance to the ten Technical Committees (TCs). The majority of the TCs participate as a Participating or Observer member in the relevant subcommittees within ISO/IEC JTC1 - a Joint Technical Committee between ISO & IEC that looks at IT standardisation, or the relevant Technical Committees in ISO.

A 'participating' member means that Singapore has the voting right to influence the development of international standards while an 'observer' member means that Singapore only receives updates on the progress of standards development. At a higher level, Singapore is a 'participating' member in JTC1 which oversees all the subcommittees covering the various technology domains.

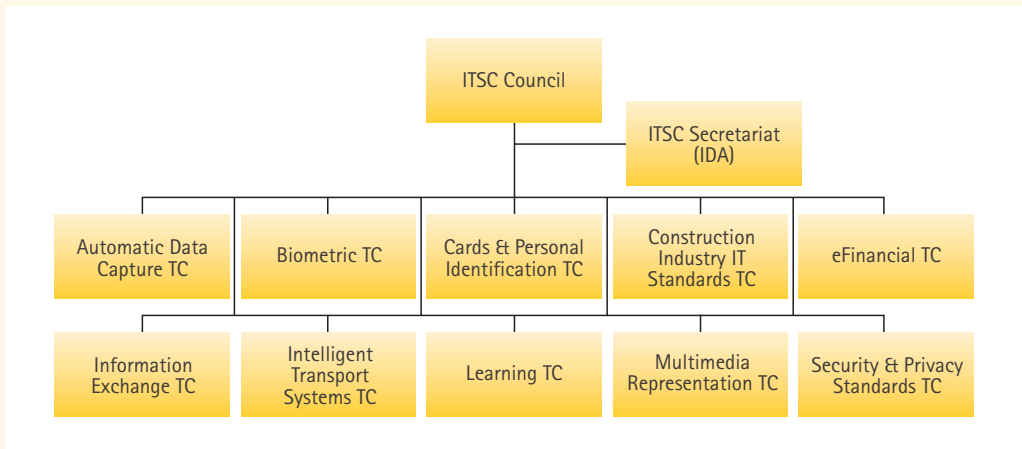


Figure 1: Structure of the IT Standards Committee

Briefly, the ten TCs are:

- 1) **Automatic Data Capture** - Chaired by Mr Tan Jin Soon of GS1 Singapore Council, this TC looks into automatic identification and data capture standards mainly in the area of barcode and radio frequency identification. A 'participating' member in ISO/IEC JTC1/SC31 on "Automatic Identification and Data Capture Techniques".
- 2) **Biometric** - Chaired by Dr Yau Wei Yun of the Institute for Infocomm Research, this TC looks into biometric standards such as fingerprint, face, and voice recognition to name a few. A 'participating' member in ISO/IEC JTC1/SC37 on "Biometric" and Singapore plays an active role with several of our experts taking on the role of co-project editors for some projects.
- 3) **Cards and Personal Identification** - Mr Lin Yih of Digital Applied Research Technology chairs this TC that looks into smart cards standards, including contact and contactless smart cards, machine readable document, drivers' license and so on. A 'participating' member in ISO/IEC JTC1/SC17 on Cards and Personal Identification, the TC participates actively in all SC17 meetings. The TC also takes on the important role of Convenor in SC17, chairing its Working Group 11 on "The application of biometrics to cards and personal identification" and is the co-project editor for its standards project.
- 4) **Construction Industry IT Standards** - Chaired by Mr Edward D'Silva, this sector-based TC looks into IT standards required by the construction industry for the sharing of digital information throughout the entire life cycle of a building project. Examples of such standards are the Computer Aided Design for symbols and naming conventions.
- 5) **eFinancial Services** - Mr Andrew Kwek of Deutsche Asset Management (Asia) Limited chairs this TC which looks into the international financial services industry for standards facilitation and development through local projects implementation. Singapore is an 'observer' member in ISO TC 68 on "Financial Services".

- 6) **Information Exchange** – Chairing this TC is Dr Lee Eng Wah of the Singapore Institute of Manufacturing Technology and this TC looks into standards that help with digital information exchange, such as XML standard and the UBL standard for the business sector, Unicode standard to enable different character sets to be represented digitally, and also the STEP standard for product interchange. Singapore is an 'observer' member in ISO/IEC JTC1/SC2 on "Coded Character Set".
- 7) **Intelligent Transport System** – The newest TC in ITSC that is chaired by Mr Eddie Lim of the Land Transport Authority, this TC looks into standards for intelligent transport such as fee and toll collection, navigation system, etc. Singapore is an 'observer' member in ISO TC204 on "Intelligent Transport Systems", and the TC intends to step up its participation in TC204.
- 8) **Learning Standards** – This TC is chaired by Mr Lim Kin Chew of the SIM University, and it looks into eLearning standards. The TC has established the eLearning framework for Singapore and is developing an integrated set of standards necessary to support the requirements and implementation of online distributed learning. Singapore participates as an 'observer' member in ISO/IEC JTC1/SC36 on "Information Technology for Learning, Education and Training".
- 9) **Multimedia Representation** – Chaired by Mr Lee Chak Joo of Panasonic Singapore Laboratories Pte Ltd, this TC looks into JPEG and MPEG standards for still pictures and moving pictures respectively. A 'participating' member in ISO/IEC JTC1/SC29 on "Coding of audio, picture, multimedia and hypermedia information", Singapore is particularly active in standards concerning moving pictures and we have even contributed our audio technology to become part of the international standard.
- 10) **Security and Privacy Standards** – Mr Chan Kin Chong of JPMorgan Chase Bank N.A. chairs this TC which promotes the awareness, development and adoption of security and privacy technology standards, such as Information Security Management Systems, Network Security standard, Business Continuity/Disaster Recovery (BC/DR) standard, and so on. Being an active 'participating' member in ISO/IEC JTC1/SC27 on "IT Security Techniques", Singapore takes on key roles such as the convenorship of its Working Group 4 on Security Controls and Services, and we are also the co-project editors on ICT DR and ICT Readiness standards projects.

Within every TCs, there could be more working groups to look into the sub-divided domain areas. The TCs and their working groups are technical experts and the so-called "working bees" of ITSC that track the progress of international standards development, establish Singapore Standards whenever needed, organise seminars/talks to promote the awareness of standards and encourage the adoption of standards to the industry.

## 2 The "Out" of ITSC

So what is the "Out" of ITSC? Well, since the inception of ITSC in 1990, it has brought about changes in the IT standardisation landscape in Singapore. ITSC has thus far established 56 Singapore Standards (SS) and Technical References (TRs) to meet the needs of the industry and contribute some of these to ISO. One such example is the SS 507 Singapore Standard for Business Continuity/Disaster Recovery (BC/DR) Service Providers where it has been adopted and used as the base document to develop the up and coming international standard ISO/IEC 24762. Currently in its Final Draft International Standard stage, the ISO/IEC 24762 refers to Guidelines for Information and Communications Technology (ICT) for Disaster Recovery (DR) Services. Singapore leads as the co-project editor in SC27 for this work item. Similarly, Singapore contributed several of our TRs to SC37 in the biometrics area.

To help our local businesses to reap the benefits of standards, ITSC initiated the PlugFest event to help and encourage companies to adopt standards. PlugFest is a neutral platform that allows vendors to test the interoperability of the products based on defined standards. Several PlugFests have been organised around the technology domain of smart cards, biometric, Web Services, eLearning and Linux. An outcome of the PlugFest initiative is that participating companies are now better able to expand their business outreach beyond Singapore.

Several seminars and workshops are organised every year by the various ITSC TCs to help promote the awareness of standards to the industry. Apart from the local experts imparting their knowledge to the industry, we have international experts in town to share their technology and standards insights. Feedback from the participants has been very good as they found these sessions to be insightful, beneficial and informative.

Hosting international standards meetings in Singapore is not a rare sight as Singapore steps up her activeness in international participation. We have so far hosted more than ten international meetings. Apart from such hosting, our experts are playing key roles as the Co-Chair or rapporteur in other international fora such as the Asian Biometric Consortium, the Regional Asia Information Security Standards Forum and the International Telecommunication Union - Telecom sector (ITU-T).

### 3 Rounding Off

Kudos ITSC! Over the past 17 years, Singapore has leapt from being just a tracker and follower of international standards to being a recognised contributor and leader in the international standards market place. This can be illustrated with the multiple key roles undertaken by ITSC members, such as Mr Kang Meng Chow, the past Chairman of SPSTC being nominated to be the Convenor of SC27/WG4 which is a pretty new WG, and Mr Lin Yih serving as the Convenor to SC17/WG11, and several project editors roles undertaken in SC17, SC27, SC29 & SC37. Apart from Singapore's contribution on the BC/DR standard, we have also contributed our biometric specifications on fingerprint image quality and voice biometric to SC37. With the increase in activeness, both in terms of meeting participation, technology and knowledge contribution, our experts have helped Singapore gain recognition and prominence in the IT standards space.

Working from ground zero, we have now created a suite of our own standards to cater for our local needs, as well as contributing to the international standards arena for the betterment of the world. And surrounded by the many activities and events, our industry has been able to gather constant updates on the happenings in the standards space, be it locally, regionally and internationally.

Singapore will continue to pursue and forge ahead in the IT standardisation arena, and we hope to groom the new generations into technology and standardisation experts and continue the journey that has well started off.

More information on ITSC can be found in the website at <http://www.itsc.org.sg>.