Standardization in ICT

Overview of Government of India
BUREAU OF INDIAN STANDARDS

The National Standards Body of India

- Bureau of Indian Standards (BIS) took over the work of Indian Standards Institution (ISI) through enactment of BIS Act (1986) by the Indian Parliament

ISI was set up in Jan 1947 by a resolution of the Parliament
Bureau of Indian Standards - Standards Body of India

President
(Hon’ble Union Minister)
For Consumer Affairs, Food & Public Distribution

Vice-President
(Hon’ble Minister of State)
For Consumer Affairs, Food & Public Distribution

Bureau Members
Structure of Committees

BUREAU

EXECUTIVE COMMITTEE

STANDARDS ADVISORY COMMITTEE

DIVISION COUNCIL

SECTIONAL COMMITTEE

SUBCOMMITTEE PANEL/WG
STANDARD FORMATION in TECHNICAL SECTORS

Technical Sectors (14 nos.)

Sectional Committee

Panel
- Basic & Production Engineering
- Chemical
- Civil Engineering
- Electronics & Telecommunications – (Information Technology)
- Electro technical
- Food And Agriculture
- Management And Systems
- Mechanical Engineering
- Medical Equipment And Hospital Planning
- Metallurgical Engineering
- Petrochemical, Coal & Related Products
- Textile
- Transport Engineering
- Water Resources
Stakeholder Approach for Standard Formation

COMPOSITION of STANDARD FORMING COMMITTEE

- Chairman (Independent Body)
- Member Secretary (BIS)
- Manufacturer
- Laboratories/ R&D Institutions
- Government & Regulatory Bodies
- Consumer/ User Organization
- Industry Association
- Public Sector Units
- Consulting Firms
- Professional & Academic Bodies
- Member

- Secretary (BIS)
- Engineer
- Researcher
- Educator
- Advocate
- Consumer/ User
- Government/ Regulatory
- Industry/ Association
- Public Sector
- Consulting
- Professional/ Academic
Consultations involving all Stakeholders
Documents sent for public comments before finalization
Consensus Principle
Balanced Committee Structure
Compliance of WTO/TBT Principles

APPROACH TO STANDARDIZATION
Standards Formulation - Steps

- **Proposal** – Indigenous or already existing international standard – by Committee or any individual/organization

- **Approval of subject** by Committee

- **Preliminary Draft** – circulated to Committee members for comments

- **Comments discussed** & resolved in Committee meeting

- **Wide Circulation draft** – to all possible stakeholders

- Comments resolution and **finalization**

- **Publication** of IS
STANDARDS DEVELOPMENT PROCESS

NEW WORK ITEM

FIRST DRAFT

CIRCULATION TO COMMITTEE MEMBERS

P-DRAFT

COMMENTS

COMMENTs

CIRCULATION TO COMMITTEE MEMBERS

MEETING

Wc DRAFT

PUBLIC CIRCULATION + Web (30 to 90 Days)

MEETING

ADOPTION BY DIVISION COUNCIL

F-DRAFT STANDARD

NATIONAL STANDARD

*Note
P- Preliminary
WC- Wide Circulation
F- Final Draft
PRESENT FOCUS

NEED BASED & DEMAND DRIVEN STANDARDS

PERIODIC REVIEW for NEEDED UPDATION

HARMONISATION WITH INTERNATIONAL STANDARDS

FASTER DEVELOPMENT OF STANDARDS BY ADOPTION WHERE FEASIBLE

STANDARDS FORMULATION
<table>
<thead>
<tr>
<th>Technical Division</th>
<th>Tech Committees</th>
<th>Published Standards</th>
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Due to the demand of technology which is fast changing and since national standard making is time taking process, there are initiatives beyond BIS.
Other Initiatives

- E – Governance Standards
- Cloud Standards
- Cyber Security Standards (BIS)
- Biometric Standards
- Telecom Standards

- TEC
- STQC
- TSDSI
- DSCI
- UIADI
Initiatives for e-Governance

- Policy on Open Standards
- Metadata & Data Standards
- Localisation and Language Technology Standards
- Information Security
- Technology Standards on Interoperability
MeghRaj (Cloud Initiative by Government of India)

- Launched on 4th February 2014, implemented by NIC.
- Termed as the ‘GI- Cloud’ (MeghRaj).
- Aimed at accelerating delivery of e-services in the country and optimizes ICT spending of the Government.
- Architectural vision is to set up discrete cloud computing environments spread across multiple locations following a set of common guidelines and standards issued by the Government of India.
Cyber Security – Eco system

1. Cyber Laws – IT Act compliance and enforcement
   - IT Act 43A compliance
   - Requirement on data security & privacy protection
   - Compliance guidelines & standards 70B, 70, 70A
   - Annual compliance & reporting

2. Cyber Security – Eco system
   - Enabling Trust through Cyber security Assurance
     - Cyber Forensic LEA
     - Short Term courses
     - Technical security compliance verification
     - Empanelment of IT Security auditing organizations

3. Security cooperation with industry (NASSCOM) and other such agencies
   - Security cooperation & partnership with industry
   - Reporting & analysis of incidents
   - Security survey & research
   - Awareness

4. Training and Skill Development (PPP model)
   - Cyber Forensic LEA
   - Short Term courses
   - Technical security compliance verification
   - Empanelment of IT Security auditing organizations

5. CERT-IN: Enabling protection & Resistance to cyber attacks through Security incident prediction
   - MoU with vendors & other CERTs
   - Info sharing & international Co-operation
   - Tech security guidelines, alerts, advices
   - Mitigation Cyber incidents

6. Security compliance support and research & development
   - Core and thrust areas
   - Development of tools
   - ISMS implementation and compliance Assessment tool development & deployment

- What needs to be done?
- How do we implement ISMS?
- Are we safe?
- What if something goes wrong?
Security of Cyber Space – Snap shot of efforts
(6 Levels of simultaneous action)

- Government (Policy, Plan, IT Act, Directives, CMP)
- Public – Private Partnership (JWG)
- Technical - (Honey pots, sensors, situational awareness, R&D)
- CIIP and CERT- (Section 70A and 70B of IT Act)
- Individual /Professional - (Awareness & capacity building)
- International - (Information sharing and cooperation)
Biometric Standards for e-Governance (Initiatives of DeitY)
Biometric Design Standards for UID Applications

Fingerprint scanner specification for enrolment devices

Fingerprint scanner specification for authentication devices

IRIS- specification for enrolment devices

IRIS- specification for authentication devices

Biometrics Specifications - UIDAI
TELECOM STANDARDS

- Department of Telecom promoting development of new standards with organisations like TSDSI / TEC

- Participation in international standardization bodies to contribute in formation of global standards

- Framing of rules, related to Telecom Devices, Networks, Security, Wireless and Spectrum etc.

- Standards include:
  - Product Standards
  - Standard in Wireless & RF Domain
  - Security
1. **TEC (Telecom Engineering Centre) has mandate to:**

- Specification of common standards with regard to Telecom network equipment, services and interoperability.

- Prepare and Publish Generic Requirements (GRs), Interface Requirements (IRs).

- Issuing *Interface Approvals, Certificate of Approvals, Service Approvals & Type Approvals*.

- Formulation of Standards and Fundamental Technical Plans.

- Interact with multilateral agencies like APT, ETSI and ITU etc. for standardization.

- Develop expertise to imbibe the latest technologies and results of R&D.

- Provide technical support to DOT and technical advice to TRAI & TDSAT.

- Coordinate with C-DOT on the technological developments in the Telecom Sector for policy planning by DOT.
2. **TRAI (Telecom Regulatory Authority of India)**

- Regulates telecom services (including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government)

- **Growth of telecommunications** in the country in a manner and at a pace which will enable India to play a leading role in emerging global information society.

- Provide a fair and **transparent policy environment**, which promotes a level playing field and facilitates fair competition.

- To provide the required **direction to the evolution of Indian telecom** market

- **To issue regulations, orders and directives** covering tariff, interconnection and quality of service as well as governance of the Authority.

- **Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT)** (set up by TRAI to adjudicate any dispute between a licensor and a licensee)
The Data Security Council of India (DSCI)

- Not-for-profit organization engaged in Industry Standards
- Aims to promote the country as a secure destination for information technology (IT) outsourcing and was founded by NASSCOM, an Indian IT-BPO (business process outsourcing) consortium.
- Framework of best practices for IT business process outsourcing (BPO) service providers, banking and financial services, manufacturing, e-governance, telecom, public sector units (PSU) and e-commerce companies.

TSDSI (Telecommunications Standards Development Society, India)

- One of the International Standards developing Organisation
- Standards development by involving all stakeholders - Government, Academia and Industry
- Maintain technology neutrality and provides a uniform playing field for all of its members.
Development Organization of Standards for Telecommunications in India (DOSTI)

- Not-for-Profit Organization & contributing to global standardization in the field of telecommunications.

- (Founding members include Cellular Operators Association of India (COAI), Association of Unified Telecom Service Providers of India (AUSPI), Ericsson, Qualcomm, Nokia Siemens Network, Center of Excellence in Wireless and Information Technology (CeWIT), Telecom Center of Excellence (TCOE), Indian Company Tejas Networks, IIT Mumbai, IIM Ahmedabad etc)

Global ICT Standardization Forum for India (GISFI)

- Non-profit organization registered as a “Society”

- An initiative of “Indian industry and University Research Establishment “ to produce industry driven ICT standards for Indian environment.
Implementing Agencies

- **TEC** - Telecom
- **STQC** - Electronics & IT
- **BIS** - Electro-technical
- **Cyber Security** - Cert-In
- **NIC** - e-Governance Standards
- **Biometric** - UIDAI
Other Ministries involved in ICT standardization

- Ministry of Power
- Ministry of Environment
India is an active member of:

- IEC
- ISO
- ITU

Indian membership
THANK YOU
*Security
*Software & System Engineering
*e-Governance

Information Technology