Process to develop standards in the ITU-T

- A personal view from the perspective of WP3/15

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ITU-T processes

Recommendation ITU-T A.1 defies the working methods including:

- Frequency of Study Group meetings
- Management and organization of meetings
- Work program
- Processing of documents (contributions, liaison statements and temporary documents)
- Role of rapporteurs (in the development of Recommendations)
- Work on deliverables (Recommendations, supplements, Technical Reports, Technical Papers) is based on written contributions that are submitted before the contribution deadline

Approval of a Recommendation

- TAP (traditional approval process) is defined in Resolution 1
 - Applies to Recommendations which require formal consultation of Member States because of:
 "Policy or regulatory implications, such as tariff and accounting issues and relevant numbering and addressing plans"
- AAP (alternative approval process) is defined in Recommendation A.8
 - Used for all other Recommendation

ITU-T organization

Work is distributed across the Study Groups

- Each Study Group has a particular area of expertise
- Responsibilities are allocated to minimize overlap and gaps
- At the start of each 4-year Study Period WTSA reviews the Responsibilities and Questions allocated the Study Groups
 - A Study Group can propose a new Question or modifications to existing Questions during the Study Period

Each Study Group is organized into Working Parties

Each Working party focusses on a particular aspect of the responsibility assigned to the SG

Activities in a Working Party are distributed to Questions

- Questions are the expert groups that do the work
- The Rapporteur organizes the work of a Question
- The Rapporteur appoints Editors to assist in the development of Recommendation

Types of meetings

Study Group plenary face-to-face meeting

- Duration ~two-weeks, held every 6-9 months
- All Questions meet
- Based on contributions address all topics within the scope of the Study Group

Face-to-face interim meeting of a Question

- Held between the SG plenary meetings
- Terms of reference (i.e. the range of topics) are agreed at the SG plenary meeting
 - May be restricted to a sub-set of the work within the scope of a Question
 - E.g., The Recommendations planned for consent at the next SG plenary

eMeeting of a Question

- Held between SG plenary meetings
- Terms of reference are proposed by the Question and approved by the SG management team

Correspondence Activity

• Focussed on a single topic, proposed by the Question and approved by the SG management team

eMail discussion

• Informal activity, any topic within the scope of the Question – "results" have no official status

Recommendation development lifecycle

Four distinct phases

- 1. Open discussion of topics within the scope of one or more Questions
 - A complex topic may require work in more than one Question
 - E.g. a new frame format may require work on the architecture, timing performance and management interface
 - Typically coordinated at a SG meeting
- 2. <u>Problem definition</u>; scope of the deliverable for each Question
 - At a SG meeting initiate (or modify) a work item in the work program
 - <u>Defines the scope</u> of the deliverable and <u>identifies at least 4 member companies who will actively support the work (i.e. submit contributions to progress the work)</u>

3. Create the content

- Agree on the approach to solve the problem stated in the work item
- Develop text to describe the agreed approach
 - The text should define only the aspects required to enable interoperable systems. It should not define, or require, a particular implementation

4. Approval (using AAP)

- At a Study Group meeting
 - Finalize the draft text and initiate Last Call
 - 28-day period for members to submit comments
 - Comment resolution prepare revised text for additional Review
 - 21-day period for final review before approval

The eras of digital transport networks

Plesiochronous digital hierarchy (PDH)

1962

Synchronous digital hierarchy (SDH)

1988

Optical Transport Network (OTN)

2000

- Low speed services are still in the network in 2024
 - E1 and low speed Ethernet (10 Mb/s and 100Mb/s) services are still being used
 - Currently being carried over SDH
 - Systems in the field are approaching end of life
- Client server independence a key feature of SDH and OTN:
 - Buffers the transport network infrastructure (both hardware and network operations) from changes in services
 - New clients don't need a new transport network
 - A new client "only" needs a new adaptation function at the edge of the network
- The key application that drove initial development was not the driver for sustained growth
- OTN has evolved, and will continue to evolve

How Recommendations are developed

- Agreements are reached by consensus of those present at a meeting
- The text of a Recommendation must be traceable to one or more contributions and the <u>agreements documented in the report of a meeting</u>
 - SG, interim, eMeeting or correspondence activity
- Recommendations have Editors <u>NOT</u> Authors
 - The editor produces text as directed by the Rapporteur to implement the agreements documented in a meeting report
- Attributes of an ideal delegate
 - Knowledgeable in the technology under discussion
 - History with the group
 - · Established technical credibility
 - Understands the dynamics of the group
 - Has the flexibility and knowledge to make compromises
 - Understands that the objective is to develop standards that provide a stable basis for the telecommunications network whilst allowing for evolution

ITU Leadership positions

- Leadership positions are not "honorary"
 - They require a significant amount of time that must be recognized by their employer
 - The burden should be shared across the ITU membership
- WP/SG Chair, rapporteurs and editors are required to lead the development of Recommendations
 - Industry needs to support these positions
- Leaders must be impartial
 - Drive the group to a mutually agreed consensus
 - Cannot promote a company position from the chair
 - Typically, a Rapporteur or Editor will ask the Associate Rapporteur or co-editor to run the meeting when presenting a company contribution

Thank you