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IPTV Consultation Meeting Announced

The Director of ITU's Telecommunication Standardization Bureau (TSB), Houlin Zhao, has convened a meeting 4-5 April 2006 in Geneva to explore standardization in Internet Protocol Television (IPTV).

IPTV rollout is expected to grow at a brisk pace in the coming years.

Many of the world's major telecommunications providers are exploring IPTV as a new service. It is increasingly seen by operators as an important part of a triple play package of voice, video and data services. Standardization is key if service providers are to offer good quality, and provide the value-adds such as video-on-demand services which will inevitably drive the market.

Zhao is convinced that standardization in the field is an urgent need. "IPTV is becoming an increasingly important service in the market, and more and more ITU-T Members have said that they are facing challenges from technical as well as regulatory issues," said Zhao. "We have received a number of proposals to strengthen our work on IPTV standardization in order to meet the needs of market players and users. I encourage ITU members and ITU partners to provide contributions and to participate at the meeting. I am confident that this will be a very productive and successful meeting."

The meeting will examine: the situation and challenges of IPTV service at the national level; the situation and challenges of IPTV service at the regional/global levels; the actions and development of IPTV-related service by SDOs; technical and regulatory challenges and ITU's role and expected actions in IPTV standardization.

NGN Workshop in Las Vegas, USA

ITU-T together with the US Alliance for Telecommunications Industry Solutions (ATIS) is holding a free workshop Next-Generation Network Technology and Standardization at the Mandalay Bay Convention Centre in Las Vegas, USA, 19-20 March 2006, during the TelecomNEXT event.

This workshop will:

- Examine the status of NGN standards
- Identify standards work needed to support ongoing viable businesses for all parties as NGN becomes reality, and
- Enhance and extend standardization community cooperation to further coordinate NGN work

A particular emphasis of the event will be next generation network (NGN) requirements and standards objectives from a North American perspective and how these can be best taken into account in global NGN standardization by the ITU-T.

NGN Global Standards Initiative Event Sees Excellent Progress

January saw a gathering of hundreds of NGN experts in Geneva for the first NGN-GSI (global standards initiative) event. Good progress was reported in several key areas, particularly in the important area of functional architecture and requirements for resource and admission control functions (RACF) in NGNs. The Recommendation covering RACF is said to be stable and is expected to be consented at the July GSI event.

The January event comprised three full study group meetings (11, 13 and 19). Experts from various other study groups were in attendance for this first meeting of the GSI following its launch in November, 2005.

Study Group 13, the lead for NGN work, alone saw over 250 contributions, many a result of the work of the Focus Group on NGN. SG 13 saw three new Recommendations consented. See separate stories (Y.1731, Y.1452, Y.1453).

Study Group 11 reported that 50 contributions were received and launched work on an NGN Protocol Set. According to SG documents, ITU-T NGN-Protocol Set 1 will define protocols for the support of:

- Network to Network Interface (NNI) session control; User to network interface (UNI) session control;
- Resource Control Interfaces;
- Network Attachment Interfaces.

Protocol Set 1 is targeted for completion by the end of 2006.

The chair of Study Group 19 reported good progress in the area of FMC (fixed-mobile convergence).

It is expected that many other of the outputs of the Focus Group on NGN will be consented at this July meeting. Among them will be a Recommendation dealing with performance, management and measurement, another key area in NGN. See the work programmes for the various Study Groups involved in NGN for a full list.

SOS by SMS

At an early December meeting of ITU-T's Study Group 2, agreement was made on the allocation of a high-revenue international short message service (SMS) number to two international organizations for the purpose of fundraising. An official announcement in ITU-T's Operational Bulletin will be made following the decision of the Director of the Telecommunication Standardization Bureau.

The number +979 0767 was granted following a request from the United Nations International Children's Fund (UNICEF) and the International Federation of the Red Cross and Red Crescent Societies (IFRC). It will allow the two organizations to launch relief campaigns across national boundaries, and will encourage regular donations by introducing a recognizable and non-changing number. The 767 portion of the number spells out SOS.

Texting emerged as a popular way to contribute to relief efforts during fundraising for the earthquake in Bam, Iran, in 2003 and the 2004 Asian tsunami.

New Off-the-Shelf Software Standardization Work to Start

Study Group 13 will start work on a new topic (Question) relating to commercial off-the-shelf software (COTS).

COTS solutions are seen as an efficient way to reduce operating costs, but a lack of standards has kept costs high for licensing, adapting and integrating these components.

The title of the new Question will be Requirements and framework for enabling COTS components in an open environment. The aim is to outline the open interfaces and standards required to deploy COTS solutions in NGNs.

According to the text of the Question: "Guidance is required to ensure that COTS components will allow for creation of open and integrated communications platforms consistent with open (public and non-proprietary) standards such that they will accelerate deployment of NGN infrastructure and services. It is necessary to define a common approach that helps to navigate through the appropriate interfaces and options to deliver an open and integrated communications platform using these standards."

The Question was set up following a proposal from the Focus Group, The Open Communications Architecture Forum (OCAF). A Rapporteur, Johannes Prade, has been provisionally appointed to lead this work.

A review by the Telecommunication Standardization Advisory Group (TSAG) is necessary to complete the formal approval of the Question at the next Study Group 13 meeting in July 2006, but work in the area is ongoing and will continue as normal.

At the same meeting of SG 13, OCAF submitted two draft Recommendations: The carrier grade open environment reference model and Carrier Grade Open Environment Components. It is expected that these will be sent for consent at SG 13's next meeting.

Procedures for Registration with the Top-Level-Domain .int

ITU-T Study Group 2 has approved, at its December 2005 meeting, a Recommendation outlining procedures for registration with the domain ".int". ITU-T Recommendation E.910 clarifies the principles and procedures for the registration of names under the Internet top-level domain ".int" and the process by which qualified international organizations can register for domain names under ".int". Importantly it outlines what criteria an international organization must meet in order to qualify for such a domain.

Standard Gives Voice Trunking Over IP

A Recommendation consented at the January meeting of Study Group 13 allows enterprises to convert multiple voice streams or VoIP flows to IP packets, enabling them to be trunked to their destination over a packet-switched infrastructure, rather than dedicated circuit-switched infrastructure. In this way businesses can reduce costs and benefit from the increased efficiency and speed of IP networks.

Rec Y.1452 gives the required functions and procedures necessary for support of multiplexed narrowband voice services by IP networks. It specifies the required protocols and the operation of the interworking function.

New Rec. Gives TDM Support in NGN

Study Group 13 has consented a new Recommendation that will give support for a widely deployed network technology in IP-based NGNs.

The Recommendation Y.1453 addresses required functions for network interworking between time division multiplexing (TDM) and IP networks.

TDM is a way to transmit multiple subscribers' calls along the same transmission medium at the same time. Given that it is a very widely used technology in existing telecommunication networks, its continued support in NGN is imperative.

Y.1453 addresses "user plane internetworking mechanisms, connection multiplexing and procedures (for interworking)".

Webinar Available in Archive

If you missed the recent ITU-T webinar on NGN, you may be interested to know that the whole thing – including slides, audio and the question and answer session – is available in Light Reading's archive.

Nearly 400 people attended the live event on 23 January, submitting close to 100 questions to the speakers.

Operators Given Performance Management For Ethernet With New Standard

A new ITU-T standard (Recommendation) will allow operators offering Ethernet services to use operations, administration, and maintenance (OAM) mechanisms to facilitate network operation and troubleshooting.

Given that performance management has been cited as a major concern of operators looking at Ethernet as an end-to-end solution, and that OAM features are not standard in Ethernet, it is seen as crucial to provide this facility. Standards-based OAM features that will allow for interoperability between different vendors are seen as a requirement for carriers adopting Ethernet on a wide scale. Experts say that operator deployments may start in 2007.

Ethernet services are becoming popular because they allow carriers to offer considerably improved flexibility to customers through a much simpler and lower cost interface. Ethernet allows users to specify exactly how much bandwidth they want between the 10 Mbit/s and 1 Gbit/s range currently offered. Further, Ethernet provides reduced operation complexity and improved scalability for carriers.

And as operators look to NGN and the use of the Internet Protocol (IP), Ethernet is seen as the best fit, especially given the rise of such services as IP VPNs, VLANs and dedicated internet access. Equally this OAM functionality may be deployed in a local area network (LAN).

The ITU-T Recommendation, Y.1731 consented at the recent meeting of Study Group 13, identifies the OAM functions which are needed to allow fault management (fault localization, defect detection, etc.) and performance monitoring (error counts, delay measurement, etc.) in an Ethernet network. With regards to performance monitoring, the Recommendation currently only addresses point-to-point connectivity, says Gilles Joncour, ITU-T Rapporteur for the Recommendation, (multi)point-to-multipoint will be the next step.

Joncour gives some more detail: "Y.1731 also specifies the so called OAM PDUs (protocol data units) which constitute the payload of the Ethernet OAM frames. The content (fields) of the PDUs vary according to the function(s) they correspond to. Y.1731 does not specify the processes associated to the sending, reception and analysis (of the content) of the OAM frames/PDUs. This will be part of another Recommendation (G.8021), from Study Group 15. Y.1731 specifies methods for measuring sample values of parameters identified for monitoring the performance of Ethernet networks. It does not deal with the integration of those values over a period of time and the use of such results, when applicable for defect detection. This will also be done in G.8021."

Recommendation Y.1731 gives user-plane OAM functionality in Ethernet networks. The architectural basis for this Recommendation is the Ethernet specification G.8010. A previous Recommendation Y.1730 served as a prelude to Y.1731 outlining the OAM requirements of operators. Joncour says that Y.1731 was developed in close collaboration with the Institute of Electrical and Electronics Engineers (IEEE) group 802.1. This group is also preparing a standard (802.1ag - Connectivity Fault Management) devoted to Ethernet OAM aspects. IEEE 802.1ag defines a subset of the functions/PDUs described in Y.1731. Regular communications between the two groups ensured alignment of the description of the common features.

Upcoming Events

- **ITU-T Meetings:**
  - **3-13 April 2006**
    Study Group 16 – Multimedia terminals, systems and applications, Geneva
  - **4-5 April 2006**
    TSB Director's consultation meeting on IPTV standardization, Geneva
- **Workshops and Seminars:**
  - **19-20 March 2006**
    Workshop on Next-Generation Network Technology and Standardization, Las Vegas, USA
  - **20-21 April 2006**
    ITU-T Workshop on NGN and its Transport Networks, Kobe, Japan