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NGN-Global Standards Initiative (NGN-GSI) – Next Stage of ITU's NGN Work

September saw a major concentration on next-generation networks (NGN) with the Focus Group on NGN (FGNGN) meeting alongside Study Groups 11, 13 and 19, themselves all having elements of NGN work. The important milestone of the Release 1 set of standards from the FGNGN will be marked November 18 with an *NGN Industry Event* in London, open to all interested parties. The event will also serve as a launch for the next stage of NGN study, to be branded the **NGN-Global Standards Initiative** (**NGN-GSI**).

Experts said that momentum achieved in NGN standards so far looked set to continue as we move into the important next stage. Each FGNGN meeting has seen increased participation and contributions according to management.

Houlin Zhao, Director of TSB, ITU-T's secretariat, said: "I am very pleased with the progress and the results achieved by the Focus Group on next-generation networks (FGNGN). These first results will provide the building blocks on which the world's systems vendors and service providers can start to make this monumental shift to NGN. We have the momentum, the tools and the will to continue this significant and important work. The formation of the NGN-GSI is a judicious move that will lead and enhance ITU-T efforts on NGN study."

Agreement on a future plan is clear, with the first draft of an allocation table for the distribution of work agreed and the development of a project management tool near completion. This type of activity is seen as important in order to keep NGN work that cuts across the study groups aligned, coherent and consistent.

The one-day *NGN Industry Event* following the November meeting of the FGNGN will serve as an overview of the work, as well as an opportunity to promote future direction and business drivers.

According to FGNGN chairman Chae-Sub Lee of Korea, an important focus of the work at the September meeting was the quality of service (QoS) aspects that will allow – for example – services like IPTV to be offered with the same broadcast quality as traditional TV. The Focus Group expects that there will be more than ten deliverables on QoS that will be submitted into the Study Group system for approval as ITU-T products such as Recommendations. Additionally, the topic of fixed-mobile convergence saw much discussion in the meeting, according to Lee.

FGNGN's September meeting also saw the document that describes the scope for NGN standards in ITU reaching near maturity, an important step, according to meeting insiders. The document, which gives an overview of what Release 1 is expected to cover in terms of services, capabilities and high-level objectives, was described in the meeting's report as 'very stable'. Additionally, much progress was made on another crucial document describing Release 1 requirements.

Emergency Call Priority Standards Agreed

At the recent meeting of Study Group 11, a number of documents relating to the international emergency preference scheme (IEPS) were consented.

IEPS aims to provide authorized emergency personnel a higher probability of successful communication under high network load conditions such as those that might occur in an emergency.

Among the topics dealt with at the meeting were signalling for support of IEPS to comply with ITU-T Recommendation E.106. E.106 provides guidelines for extending national emergency preference schemes across international boundaries.

Because Recommendations in this area have potential national and regulatory policy implications, it was agreed to consider the documents under the traditional approval process (TAP) rather than under the alternative approval process (AAP).

ITU maintains a webpage (http://www.itu.int/ITU-T/emergency telecoms/) detailing its work in the area of Emergency Telecommunications.

Migration to 3G Charted in New Recommendation

Study Group 19 was among the three study groups meeting in Geneva in September. The group that focuses on mobile telecommunications and fixed-mobile convergence reached the first stage of approval (known as consent) on a Recommendation that charts further detail in the migration from GSM (second-generation mobile telephony) to UMTS (a member of the 3G family).

Also known as 3GPP Release 6, the Recommendation (Q.1741.4, IMT-2000 family member GSM evolved UMTS Core Networks) combines and associates relevant standards from a number of standards development organizations (SDOs) – ARIB, CCSA, ETSI, ATIS, TTA, TTC – into a globally applicable ITU-T Recommendation.

The SG 19 meeting also saw some discussion on the core network architecture of next-generation mobile networks or 4G.

VPN Standards Series Complete

Underlining the key role that ITU has played in the development of virtual private networks (VPN), the recent meeting of Study Group 13 saw consent of the last in a series of Recommendations on the subject.

A simple description of a VPN is that it is a private communications network using the resources of a shared network infrastructure.

The Recommendation will help operators to select the most appropriate protocols to use for each element of the VPN services they want to offer. Experts say that as well as allowing best-of-breed protocols to be used for each function so that individual functional components can evolve independently, the Recommendation also supports the reuse of common mechanisms or protocols across different VPN network technologies to reduce cost and complexity. A section of the document provides some examples of different service scenarios and identifies some example mechanisms/protocols that can be used to provide the functions required.

Known as VPN functional decomposition, ITU-T Recommendation Y.1314 describes the set of functions required to establish, operate and maintain client/server and peer level VPN. Network functionality is described from a network level viewpoint, taking into account the VPN network layered structure, client characteristic information, client/server associations, networking topology and layer network functionality.

Mobile Telephony Charges May Fall Thanks to ITU Initiative

The latest meeting of Study Group 3 saw an agreement that may lead to lower international mobile telephony charges.

The move follows a successful initiative in the 1990s to lower the – then – high cost of international fixed-line telephone calls.

SG 3 research has found that in some cases mobile termination charges can be five to ten times more than the fixed termination charge. Termination charges happen when calls are terminated in a network other than that from which they have originated.

And since as many as 75 per cent of all calls now involve the mobile network in some way, SG 3 has decided to investigate how to lower these costs and make mobile telephony more affordable.

The Study Group will send a questionnaire to members and, following analysis of the responses, it will develop targets aimed at bringing down the cost of mobile call termination.

The same initiative for fixed-line telephony is thought to have significantly reduced costs to consumers. Although some lowering of call costs can be shown to have been due to competition and market conditions, call costs were also seen to drop in areas where there was no competition, indicating that the ITU initiative had worked.

In other news from SG 3's last meeting, it was announced that an alternative has been agreed to the 140-year-old practice of allowing the calling party's service provider to invoice the call terminator for call termination services. The practice has led to many disputes and there have been calls to review the situation.

SG 3's meeting agreed to a new model that – it is felt – will be less problematic. Now the call terminator can bill directly for the minutes used by the service provider sending the calls.

Air Passengers Offered Inflight Mobile Services

ITU has assigned an international numbering code that will be used by the inflight passengers communications company OnAir, in order to offer an inflight mobile telephony service.

For the first time, passengers will be able to benefit from being able to use their mobile phones and PDAs' GSM and GPRS functionality while inflight. The service will be available to all subscribers with roaming contracts.

The ITU-T E.164 number code is required in order to route subscribers' calls and data to/from the passengers' home networks. In addition, ITU-T has assigned to OnAir a shared mobile country code (MCC), and network code (MNC). The MCC is part of the international mobile subscriber identity (IMSI) number, which uniquely identifies a particular subscriber, and is stored on a user's SIM card. These numbers are assigned according to ITU-T Recommendation E.212.

bmi and TAP Portugal will trial the service, an initiative by OnAir, a joint venture with Airbus and SITA.

Onboard equipment developed by Airbus, with its partners, for OnAir will use existing technology but will have to gain an airworthiness certificate and telecoms regulatory approval before its launch.

The service will be available on both long- or short-haul flights and on both Airbus and Boeing aircraft. OnAir sources said that it is mainly business passengers that have led the demand for the service.

The system is comprised of pico cells on board, connected via a satellite link to a ground GSM/GPRS roaming platform.

NGN Management Principles Defined

Work on a standard (ITU-T Recommendation) that updates telecommunication management principles for NGN has been completed in Study Group 4.

Standards here are essential, according to SG experts, in order to ensure that management solutions support NGN, a network based on the separation of service and transport capabilities.

The work focusing on the interfaces between management systems was mostly led by service providers and is important in order for the dynamic provisioning of services in NGN. The document will also allow for easier planning, installation, maintenance, operation and administration, experts say.

The Recommendation – M.3060 – was consented with input from other standards bodies including 3GPP, ATIS, ETSI and the Telemanagement Forum (TMF). It presents the telecommunication management principles, including requirements and four architectural views, for managing NGN based on service-oriented architectural concepts.

Workshop to Focus on Standards in Home Networking

ITU will hold a workshop 13-14 October: *Opportunities and Challenges in Home Networking*.

Home Networking, the linking of all types of electronic devices for applications such as entertainment, telecommunication, home automation systems and telemetry (remote control and monitoring systems), is attracting a great deal of interest. And given the wide range of previously unrelated technologies involved, standards that allow for interoperability are seen as key to the successful marketing of the concept. However, thus far, despite many initiatives, a lack of standardization has stifled the market. And, many believe that for the new technology to take off, a consolidation of the various standardization efforts is necessary.

This workshop will bring together experts from all over the world who are pushing forward the frontiers of this fast-moving field. It will provide an overview of the technology as well as an examination of standards that address access, services, performance, quality of service (QoS), electromagnetic interference and security issues. The workshop will deal with current technology and future trends to provide a framework for moving forward standardization work.

Upcoming Events

- **ITU-T Meetings:**
  - **5-14 October 2005**
    Study Group 17 — Security, languages and telecommunication software, Geneva
  - **17-21 October 2005**
    Study Group 9 — Integrated broadband cable networks and television and sound transmission, Geneva
  - **17-21 October 2005**
    Study Group 12 — Performance and Quality of Service, Geneva
  - **14-17 November 2005**
    9th Focus Group on Next-Generation Networks (FGNGN) Meeting, Gatwick, London
- **Workshops and Seminars:**
  - **13-14 October 2005**
    Opportunities and Challenges in Home Networking, Geneva
  - **18 November 2005**
    NGN Industry Event (limited places available, pre-registration essential), Gatwick, London