


 **International Telecommunication Union**
 Next Generation Networks and
 Telecommunication Regulations

NGN Standards issues


Dick Knight
BT Group plc
 ITU NGN Focus Group Vice-Chairman


 Nanjing, China August 25 - 26, 2004

 **ITU-T
NGN FG**

Contents


- **ITU Focus Group on NGN**
 1. Why the Focus Group (FG) was formed
 2. What the FG is expected to do
 3. Relationships with ITU SG & SDO's
 4. Structure
- 1. **System Components**
 1. Major Inputs
- 2. **Regulatory Requirements**
- 3. **Regulatory Issues**
- 4. **Questions**


 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 2

 **ITU Focus Group on NGN**

**ITU-T
NGN FG**


- **Continuity of work outside WTSA**
 - ITU Restructuring (expected)
 - Potential Disruption to ongoing work
- **NGN Rapid Global Development**
 - Regional SDO activities
- **Co-ordinate Study Group activities**
 - Meet Market needs of Global Telecommunications Industry


 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 3

 **ITU-T
NGN FG**

Aims and Objectives

- **Nomadicity architecture**
 - broadband access (e.g. DSL); Quality of Service; Authentication; Security
 - Current work (SG11, SG13 JRG NGN)
- **Services & Requirements**
- **[Signalling] Protocol Requirements**
- **Migration from TDM to NGN**
- **Future Packet-based Networks**


 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 4




**ITU-T
NGN FG**

Initial Scope

- Mandate for 12 Months
- Transfer to a SG after WTSA
- Deliverables
 - Technical Specifications (TS)
 - Technical Reports (TR)
- NGN activities within ITU-T SG
- JRG-NGN related documents
- Activities in other organisations




19.09.2004 Nanjing, China August 25 - 26, 2004 Page - 5



**ITU-T
NGN FG**

FG NGN Relationships

- ITU-T Study Groups 2, 11, 13, 15, 16; SSG and ITU-D
 - Networks; Control; Transport; Transmission; Multi-media
- Non-ITU Organisations:
 - 3GPP; 3GPP2; IETF; DSL Forum; ETSI TISPAN; ATIS, and more ...
 - Mobility; IP Focused; Fixed Line Accesses; Regional Standards;



19.09.2004 Nanjing, China August 25 - 26, 2004 Page - 6




**ITU-T
NGN FG**

Focus Group Structure

- Seven Working Groups
 - 1 Services & requirements
 - 2 Network Architecture & Mobility
 - 3 Quality of Service
 - 4 Protocol Requirements
 - 5 Security
 - 6 PSTN/ISDN Evolution
 - 7 Future Packet-based Networks




19.09.2004 Nanjing, China August 25 - 26, 2004 Page - 7



**ITU-T
NGN FG**

System Components

- Customer Terminals & Networks
- Access & Access Networks
- Core Network
 - Control
 - Transport
 - (Network Management & OSS)
- Interconnect



19.09.2004 Nanjing, China August 25 - 26, 2004 Page - 8

ITU-T NGN FG

Major Inputs

- **ETSI TISPAN**
 - **Similar scope**
 - Services; Architecture; Protocols; Numbering Naming and Addressing; QoS; Security; Network management;
 - Transport level out of scope
- **ITU-T JRG-NGN**
 - Presentation by Marco Carugi

BT 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 9

ITU-T NGN FG

ETSI TISPAN Input

- **Re-use of 3GPP IMS Release 6**
 - SIP-based Services
 - Extended to Broadband Accesses
- **PSTN/ISDN Evolution**
- **Extensible Framework**
 - Streaming Services
 - Other Services e.g. Data
- **Interconnect**

BT 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 10

ITU-T NGN FG

ETSI TISPAN Framework

The diagram illustrates the ETSI TISPAN Framework. At the top, 'Applications' are shown, including 'Other Multimedia Subsystems', '(RTP) based Streaming Services', 'SIP based IP Multimedia Subsystem (Core IMS)', and 'SIP based PSTN/ISDN Evolution Services'. Below these are 'Network Attachments' such as 'Network Attachment Functionality' and 'Resilient and Adaptive Core Transport Network'. The 'Access Transport Network' connects these to the 'Core Transport Network'. 'Other Networks' are also shown connected to the Core Transport Network. A legend indicates that orange boxes are 'Based on 3GPP IMS R6' and green boxes are 'IP Connectivity Across Network And related functionality'. A '3GPP network' is also shown at the bottom left.


BT 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 11

ITU-T NGN FG

Regulatory Requirements in ITU FG NGN

- **New Requirements not in scope**
 - Derived in Study Groups (e.g. SG2, SG3, etc.)
- **Technical Solutions are in scope**
- **NGN must take account of:**
 - Privacy and personal data (e.g. CLI)
 - User Identification and monitoring (e.g. MCI and Lawful Intercept)
 - Emergency calling


BT 19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 12




**ITU-T
NGN FG**

Regulatory Issues (1)

- **Personal Data**
 - **Calling Line Identification issues**
 - Suppressing address/name
 - Data Protection
 - Anonymous Call Reject
 - **Presence & Location Services**
 - More data protection
 - Prevention of "SPAM" text messages




19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 13




**ITU-T
NGN FG**

Regulatory Issues (2)

- **User identification and monitoring**
 - **User profile**
 - what is a user's identity?
 - **Malicious Call Identification**
 - **Lawful Interception**
 - Identification
 - Associating Signalling and media stream



19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 14



**ITU-T
NGN FG**

Regulatory Issues (3)

- **Emergency Calling**
 - **Citizen to Authority**
 - 911/112/999 emergency calls
 - Geographical location
 - To Authenticate or not?
 - Multimedia and messaging
 - **Authority to Authority**
 - Telecommunications for Disaster Relief
 - International Emergency Preference Scheme (IEPS - E.106)



19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 15



**ITU-T
NGN FG**

Contacts and Information

ITU-T Focus Group
<http://www.itu.int/ITU-T/ngn/fgnngn/>
Membership: Any organisation from a member country of the ITU.
Email exploder: apply to join at
<http://www.itu.int/ITU-T/ngn/edh/subscribe-fgnngn.html>

ETSI TISPAN
<http://portal.etsi.org>
<http://docbox.etsi.org/TISPAN/Open/>
Dick Knight



19/09/2004 Nanjing, China August 25 - 26, 2004 Page - 16