



International Telecommunication Union

1.2.1b Key Results of Focus Group activity on NGN

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New Network Architecture for the Arab Region
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Global Standards Collaboration
GSC#10

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Sophia Antipolis, France

GTSC#3 Agenda Item: 5

Key Results of Focus Group activity on NGN


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1. Overview of NGN Focus Group

NGN Focus Group

- ITU-T Director launched NGN Focus Group at June 2004
- Almost every two month meeting : 6, 7, 9, 11/2004 and 3, 5, 7, 9, 11/2005
- ITU-T SG13 (NGN SG) became parent group of FGNGN (WTSA 2004)
- Could be finished Release 1 and closed FGNGN end of 2005
- Results and Remaining works will be transferred to SGs by SG13

| WG | Area | Deliverables |
|------|---|---|
| WG 1 | SR (Service Requirements) | Development of scope, service requirements and capabilities according to Release Plan |
| WG 2 | FAM (Functional Architecture, and Mobility) | Development of Functional Architecture in general and specific instance views including Mobility aspects |
| WG 3 | QoS | Development of End-End QoS related deliverables including network performance aspects |
| WG 4 | CSC (Control & Signalling) | Development of control related standards support QoS include Resource Admission and Control aspects |
| WG 5 | SeC (Security Capability) | Development of Security Framework under NGN environment |
| WG 6 | EvoI (Evolution) | Evolution of PSTN/ISDN into NGN |
| WG7 | FPBN (Future Packet-based Bearer Network) | Identify problem states of current packet based network and development of Future Packet Network requirements |

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1. Overview of NGN Focus Group

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Statistics of NGN Focus Group

Inputs and Participants

| | Date/Place | Input Document | Participants |
|-----------------|---------------------|----------------|--------------|
| 1 st | June 04/Geneva | 39 | 99 |
| 2 nd | July 04/Geneva | 66 | 66 |
| 3 rd | September 04/Ottawa | 141 | 121 |
| 4 th | December 04/Geneva | 125 | 123 |
| 5 th | March 05/Jeju | 174 | 144 |
| 6 th | April 05/Geneva | 142 | 144 |
| 7 th | June 05/Beijing | 170 | 174 |
| 8 th | Aug-Sep 05/Geneva | 187 | 143 |
| Total | | 1044 | 1014 |

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Updated post-GSC

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1. Overview of NGN Focus Group

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Statistics of NGN Focus Group


Collaboration with other SDOs

| SDOs | Scope | Input LS | Output LS |
|----------------------|---|-----------|-----------|
| xDSL Forum | Coordination on TR-58, TR-59 and WT-102v3 | 3 | 3 |
| ETSI TISPAN | Definition on ETSI TISPAN Release 1, NGN Projects, QoS, | 12 | 7 |
| ATIS | NGN Framework, Gaps between Release plans | 4 | 4 |
| MPLS/FR Alliance | Performance monitoring and measuring, MPLS ICI | 3 | 3 |
| Metro Ethernet Forum | QoS on Ethernet based access architecture | 1 | 1 |
| ITU-D SG2 | Evolution to NGN | 1 | 1 |
| OIF | Optical Interworking Aspects | 2 | 2 |
| TTA, TTC, CCSA | IMS parameterization | 3 | 3 |
| Total | | 27 | 24 |

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2. FGNGN Release and its plan


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FGNGN Release Concept

“The ITU-T NGN-FG plans to work on a Release basis. A Release is a method of prioritizing by identifying a set of services to be addressed in a certain time frame. The ITU-T NGN-FG should progress the work to define the service requirements and capabilities needed to realize the services in addition to defining other associated capabilities as needed to facilitate a NGN in a first Release. Preparatory work may also begin on a subsequent Releases based on Members inputs. The work progressed by the FG should be submitted to the appropriate ITU-T Study Group(s) as soon as practical after WTS2004. The adoption of a release-based approach will not prevent other work, such as the development of more generic (release independent) capabilities, and the collation of services, requirements and issues for later releases. The FG recommends that successor groups in ITU-T doing NGN work to consider the release approach with Release 1 as scoped by the FG.”

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2. FGNGN Release and its plan

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NGN Releases between ITU-T and FGNGN

- Release independent : not related with specific times
- Release 1(R1) : ~ 2005, Beyond R 1 : After the 2005

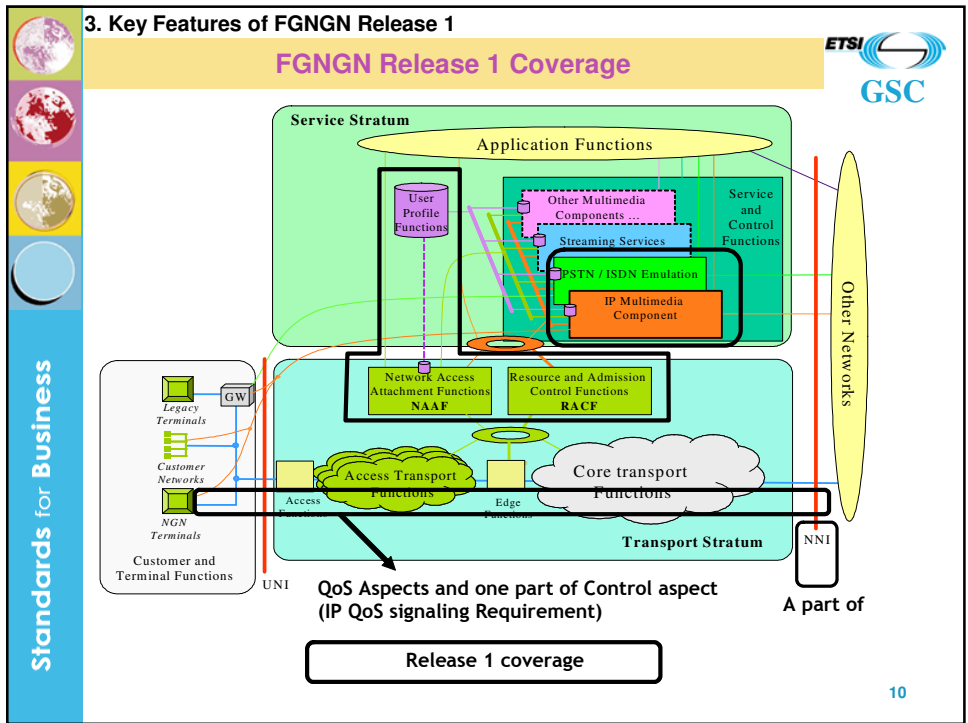
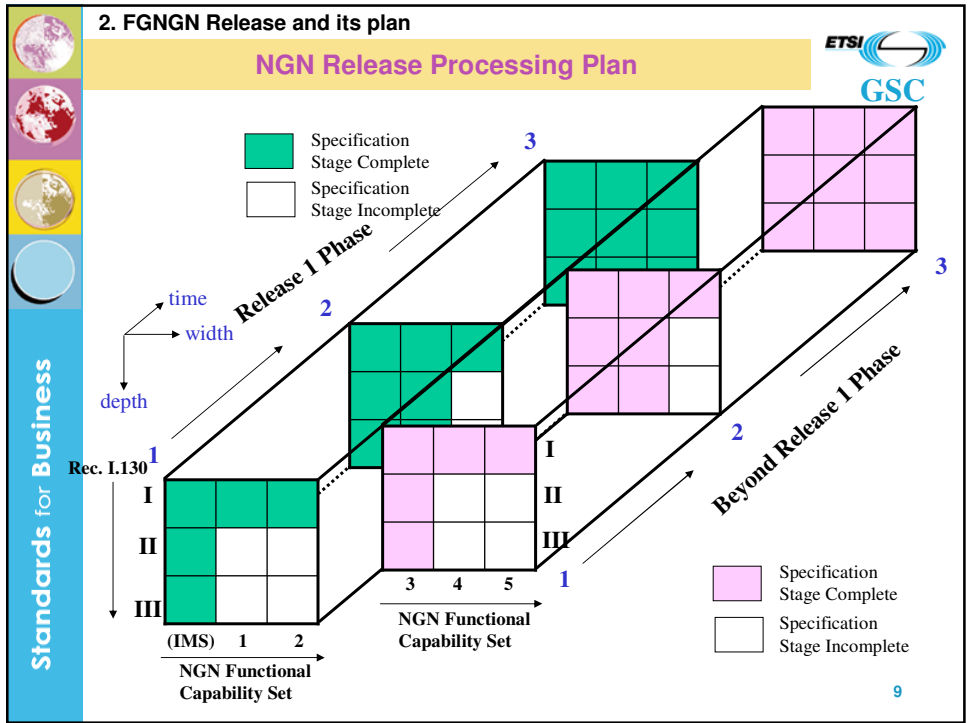
Scope of FGNGN

Scope of Other SGs

Scope of SG13 as NGN Lead Group

- FGNGN R1
- ITU-T R1
- FGNGN BR1
- ITU-T BR2

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3. Key Features of FGNGN Release 1

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FGNGN Release 1 Scope and Services

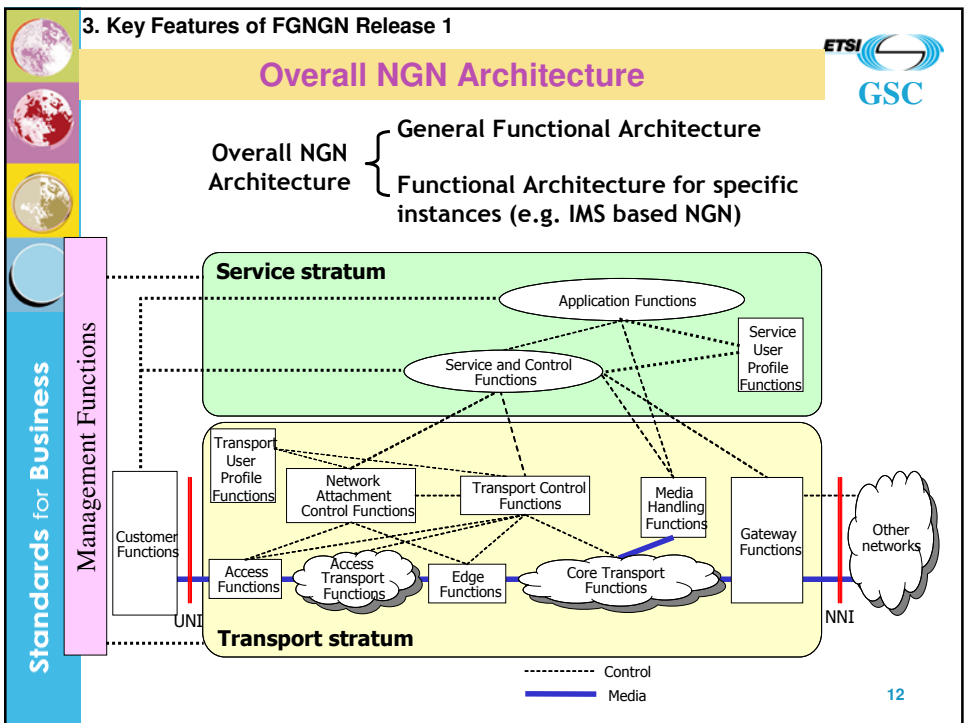
◆ **Service Types**

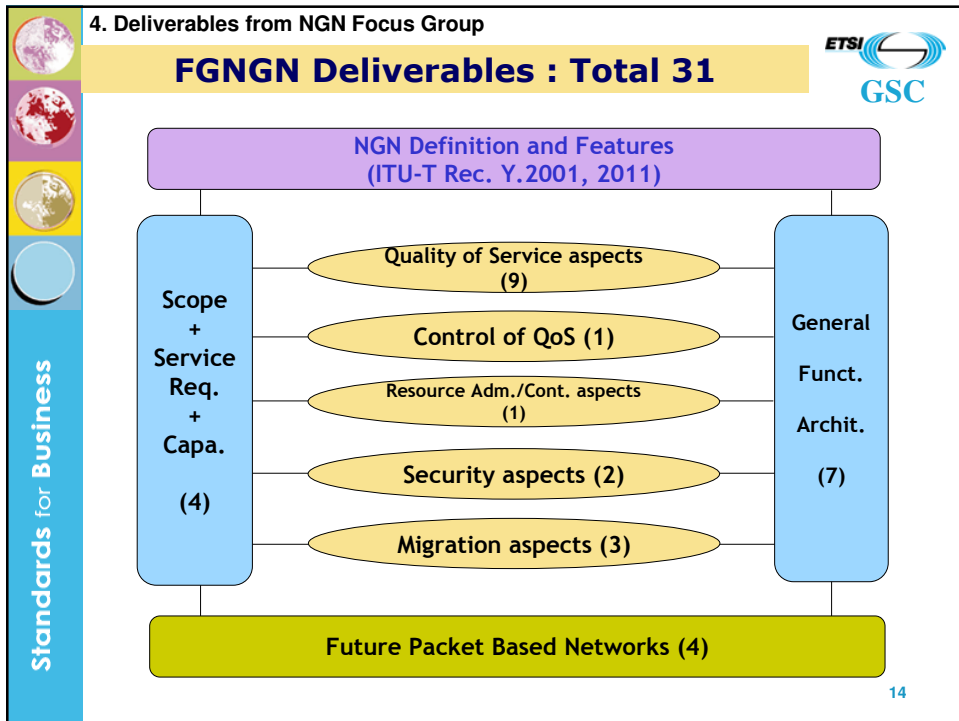
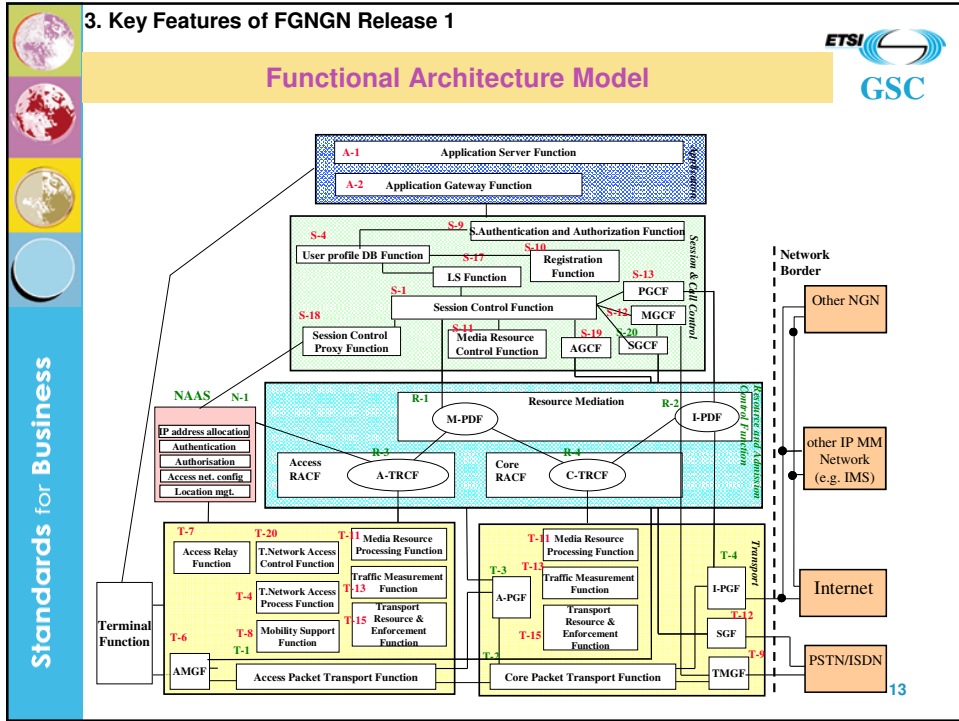
- PSTN/ISDN Emulation services
- PSTN/ISDN Simulation services
- Multimedia services
- Internet access
- Other services (data services etc.)
- Public service aspects (LI, ETS/TDR, etc.)

◆ **Service Capabilities**

- Basic network capabilities
- Service support capabilities
 - Open Service Environment
 - Service Enablers
 - PSTN/ISDN Emulation support
- Public service support capabilities

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4. Deliverables from NGN Focus Group

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FGNGN Deliverables : Total 31

(1) Release Independent Deliverables

| WG | Deliverable Title | Current Draft | Target Date | Cat. | Stat | Target SG* |
|----|---|----------------|-------------|-------|------|------------|
| 1 | NGN release-independent requirements | (none) | 4Q05 | 0/1/1 | P | 13 |
| 1 | NGN general services and capabilities (release independent) | (none) | 4Q05 | 0/1/1 | P | 13 |
| 2 | Customer Manageable IP Network | Approved | 2Q05 | 0/2/1 | S | 13 |
| 3 | General aspects of QoS and network performance in NGN (TR-NGN.QoS) | FGNGN-OD-00166 | 3Q05 | 0/1/1 | D | 13/12 |
| 3 | Network performance of non-homogeneous networks in NGN (TR-NGN.NHNperf.). | FGNGN-OD-00167 | 3Q05 | 0/1/1 | D | 13/12 |

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4. Deliverables from NGN Focus Group

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FGNGN Deliverables : Total 31

(2) Release 1 Deliverables

| WG | Deliverable Title | Current Draft | Target Date | Cat. | Stat | Target SG* |
|----|--|----------------|-------------|-------|------|------------|
| 1 | NGN Release 1 Scope | FGNGN-OD-00184 | 3Q05 | 1/1/1 | S | 13 |
| 1 | NGN Release 1 requirements | FGNGN-OD-00188 | 3Q05 | 1/1/1 | D | 13 |
| 2 | Functional Requirements & Architecture for NGN (FRA) | FGNGN-OD-00192 | 4Q05 | 1/2/1 | S | 13 |
| 2 | Functional Requirements for NGN Mobility (FRMOB) | FGNGN-OD-00195 | 4Q05 | 1/2/1 | D | 13 /19 |
| 2 | IMS for Next Generation Networks (IFN) | FGNGN-OD-00193 | 4Q05 | 1/2/1 | S | 13 |
| 2 | PSTN/ISDN emulation architecture | FGNGN-OD-00198 | 4Q05 | 1/2/1 | D | 13 |
| 3 | A QoS control architecture for Ethernet-based IP access networks | Approved | Mar. 05 | 1/2/1 | A | 13 |
| 3 | Multi Service Provider NNI for IP QoS (TR-msnqiqos) | FGNGN-OD-00107 | 3Q05 | 1/2/1 | D | 13 |

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| 4. Deliverables from NGN Focus Group | | | | | | |
|--------------------------------------|---|------------------------|-------------|-------|------|------------|
| FGNGN Deliverables : Total 31 | | | | | | |
| (2) Release 1 Deliverables | | | | | | |
| WG | Deliverable Title | Current Draft | Target Date | Cat. | Stat | Target SG* |
| 3 | Requirements and framework for end-to-end QoS in NGN (TR-e2eqos.1) | FGNGN-OD-00170 | 4Q05 | 1/2/1 | D | 13 |
| 3 | A QoS architecture for Ethernet networks (TR-enet) | FGNGN-OD-00171 | 4Q05 | 1/2/2 | D | 13 |
| 3 | Resource and admission control functions(TR-racf) | FGNGN-OD-00165 | 3Q05 | 1/2/2 | D | 13 |
| 3 | A QoS Framework for IP-based access networks (TR-ipaqos) | FGNGN-OD-00113 | 4Q05 | 1/2/1 | D | 13 |
| 3 | Performance measurement and management for NGN (TR-pmm) | FGNGN-OD-00168 | 3Q05 | 1/2/1 | D | 12 |
| 3 | Algorithms for Achieving End to End Performance Objectives (TR-apo) | FGNGN-OD-00169 | 4Q05 | 1/2/2 | D | 12 |
| 4 | Signalling requirements for IP QoS TRQ.IP QoS.SIG.CS1 | Q Series Supplement 51 | Dec. 2004 | 1/2/2 | A | 11 |
| 5 | Security Requirements for RI | FGNGN-OD-00132 | 1Q05 | 1/2/1 | S | 17 |
| 6 | Evolution of Networks to NGN | FGNGN-OD-00175 | 3Q05 | 1/2/1 | D | 13 |
| 6 | PSTN/ISDN evolution to NGN | FGNGN-OD-00176 | 3Q05 | 1/2/1 | D | 13 |
| 6 | PSTN/ISDN emulation and simulation | FGNGN-OD-00177 | 3Q05 | 1/2/1 | D | 13 17 |

| 4. Deliverables from NGN Focus Group | | | | | | |
|--------------------------------------|--|----------------|-------------|-------|------|------------|
| FGNGN Deliverables : Total 31 | | | | | | |
| (3) Beyond Release 1 Deliverables | | | | | | |
| WG | Deliverable Title | Current Draft | Target Date | Cat. | Stat | Target SG* |
| 2 | Functional Requirement for Soft Router | FGNGN-OD-00145 | TBD | 2/2/1 | D | 13 |
| 2 | Digital Multimedia Broadcast | FGNGN-OD-00144 | TBD | 2/2/1 | P | 13 |
| 2 | Converged Services Framework | FGNGN-OD-00196 | 4Q 05 | 2/2/1 | P | 13 |
| 5 | Guidelines for NGN Security | FGNGN-OD-00173 | 3Q 05 | 2/2/1 | D | 17 |
| 7 | Problem Statement | Approved | Apr. 2005 | 2/1/1 | A | 13 |
| 7 | Requirements | FGNGN-OD-00178 | 3Q05 | 2/1/1 | S | 13 |
| 7 | High Level Architecture | FGNGN-OD-00179 | 4Q05 | 2/2/1 | D | 13 |
| 7 | Candidate Technologies | FGNGN-OD-00180 | 4Q05 | 2 | D | 13 |

5. Future Plan

Plan for 2005

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- 5th FG NGN : 14 ~ 22 March, Jeju-island Korea
NGN Technical Workshop : 12 ~ 13 Korea
- 6th FG NGN : 26 April ~ 30 April, Geneva Swiss
ITU-T and IETF Joint NGN Workshop 1 ~ 2 May, Geneva, Swiss
- 7th FG NGN : 27 June ~ 1 July (Beijing, China)
- 8th FG NGN : 24 August ~ 2 September, Geneva Swiss
- 9th FG NGN : 14 November ~ 18 November, London UK

Complete Release 1 transfer all scope to relevant SGs (SG11, 12, 13, 19) through SG 13

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NGN Management Focus Group (NGNMFG)



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- ❑ Established by ITU-T SG 4 in Sept 2004 at FGNGN request to support NGN Release 1
- ❑ Based on collaboration with SDOs, forums, and consortia (initially 8; see below)
- ❑ Focused on the following (FCAPS) management interfaces:
 - Network Element –Operation Systems
 - Operations System – Operations System
 - Human – Machine
- ❑ NGNMFG report to SG 4 due September 2005

FCAPS - Fault, Configuration, Accounting, Performance, and Security Management

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NGN Management FG – Objectives

General goal: To provide the management interface capabilities to support the FGNGN objectives for Release 1.

- ❑ To agree with the high level management requirements in Y.2001, Y.2011, and the FGNGN FRA.
- ❑ To determine from them, the functional and physical entities to be managed for Release 1.
- ❑ To produce a NGN Management Roadmap focused on Release 1 which identifies
 - Requirements
 - Framework, principles, and architecture
 - Interface specifications, both protocol-neutral and protocol-specific
- ❑ To emphasize reuse of partner organizations' specifications
- ❑ To identify gaps and best organization(s) to fill the gaps
- ❑ As a last resort, to produce specifications deemed to be necessary but unavailable from any source.



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NGN Management Roadmap - 1

- ❑ ITU-T SG 4
 - M.3016 series (security of the management plane)
 - M.3050 series (Enhanced Telecom Operations Map)
 - M.3060 (NGN principles and architecture)
 - M.3341 (QoS/SLA management service requirements)
 - M.3350 (Emergency telecommunication service management requirements)
- ❑ ITU-T SG 15
 - G.7718, G.7718.1 (ASON control plane management)
- ❑ ETSI TISPAN WG8
 - TS 08006 (Vision for NGN OSS)
 - DTS 08007 (NGN OSS architecture for R1)
- ❑ TeleManagement Forum
 - Enhanced Telecom Operations Map (eTOM, =M.3050)
 - Multi-technology Network Management (MTNM)



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NGN Management Roadmap - 2

- ❑ **3GPP SA5**
 - 32.111 series (alarm IRP)
 - 32.200 series (subset for IMS charging and billing)
 - 32.300 common management series (IRPs for notification, generic)
 - 32.600 series (interface IRPs for basic CM, kernel CM; NRM IRPs for generic, core; data definition IRPs for state management)
- ❑ **OASIS**
 - WSDM-MUWS (Web services distributed management)
- ❑ **IETF**
 - RFC 3444 (On the difference between information models and data models)
 - RFC 3535 (Overview of the 2002 IAB network management workshop)
 - Netconf (Network configuration protocol)
 - SNMP v3 (Simple network management protocol)

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NGN Management Roadmap - 3

- ❑ **ATIS TMOG (NGNMFG-ID-083)**
 - Usage data for packet-based services
 - 0300075 (Service –neutral architecture and protocol requirements)
 - 0300075.1 (Service-neutral protocol specifications for billing applications)

Note 1: The above list of specifications is preliminary.

Note 2: Some of the above specifications are in draft form.

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**Thank you
for your attention !!!**