2.1.3b Key Results of Focus Group activity on NGN

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Chairman ITU-T FG NGN

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Global Standards Collaboration
GSC#10
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GSC

GTSC#3 Agenda Item: 5

Key Results of Focus Group activity on NGN

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Contents

Focus Group on NGN (FGNGN)

- ❑ Overview
- ❑ FGNGN Release and its Plan
- ❑ Key Features of FGNGN Release 1
- ❑ Deliverables from FGNGN
- ❑ Future Plan

NGN Management Focus Group (NGNMFG)

- ❑ Overview
- ❑ NGN Management Roadmap

NGN Focus Group

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- 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 releated 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	Evol (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

Statistics of NGN Focus Group

Inputs and Participants

	Date/Place	Input Document	Participants
1st	June 04/Geneva	39	99
2nd	July 04/Geneva	66	66
3rd	September 04/Ottawa	141	121
4th	December 04/Geneva	125	123
5th	March 05/Jeju	174	144
6th	April 05/Geneva	142	144
7th	June 05/Beijing	170	174
Total		857	871

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

FGNGN Release Concept

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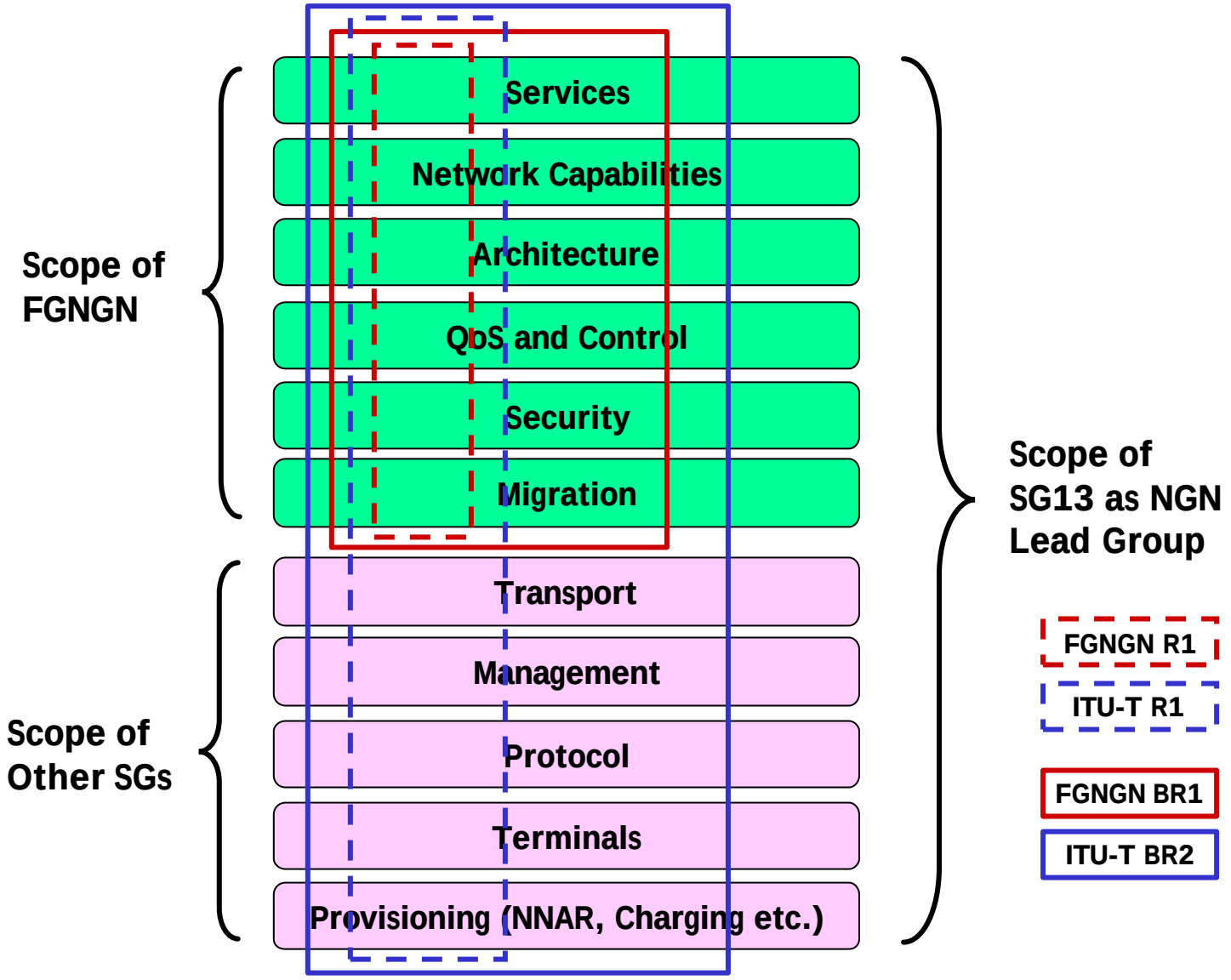
"The ITU-T NGN-FG plans to work on a Release basis. A Release is a method of prioritizing by identifying a set of services to be addressed in a certain time frame. The ITU-T NGN-FG should progress the work to define the service requirements and capabilities needed to realize the services in addition 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 WTSA2004. 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."

NGN Releases between ITU-T and FGNGN

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



NGN Release Processing Plan

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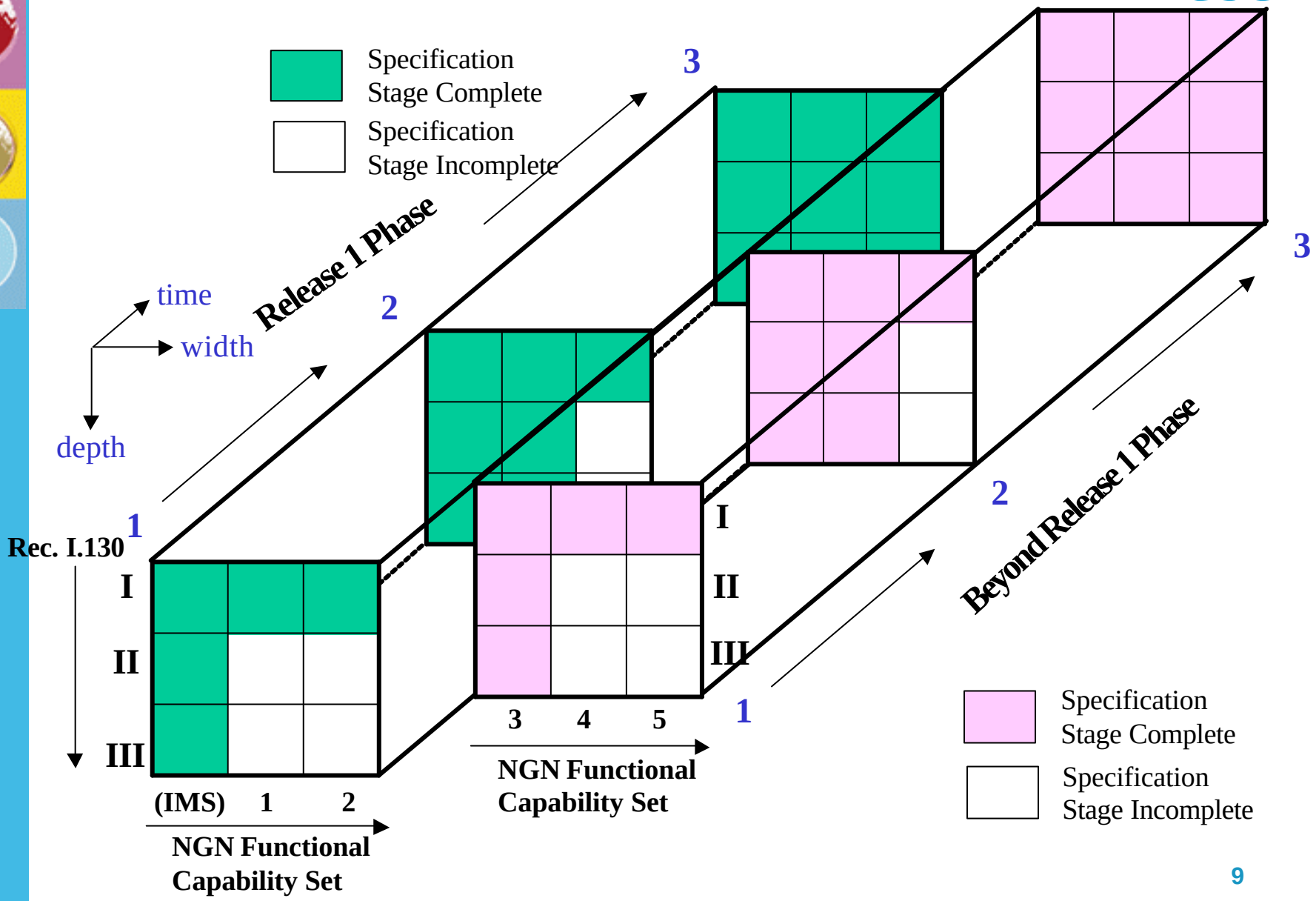
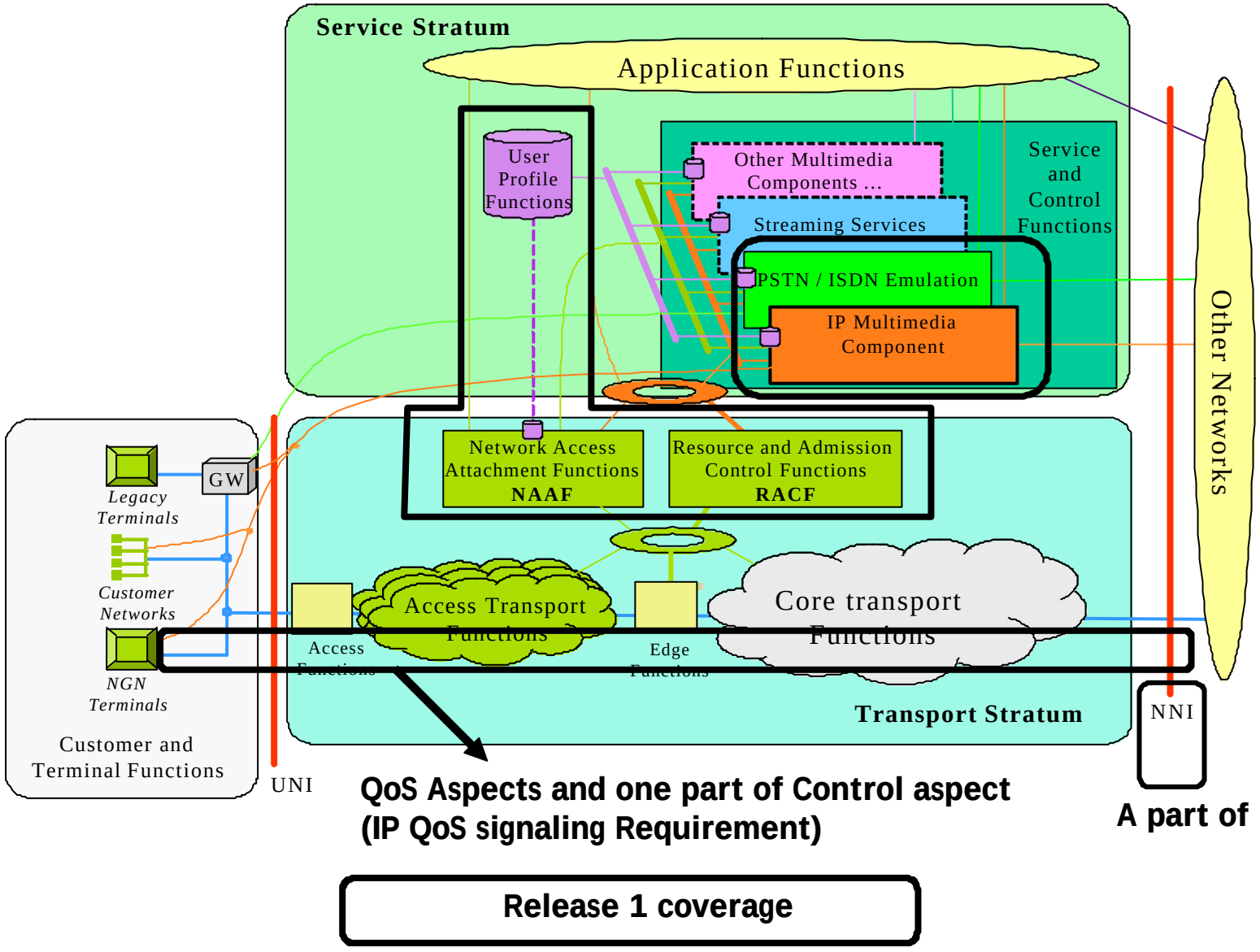


FGNGN Release 1 Coverage



FGNGN Release 1 Scope and Services

◆ Service Types

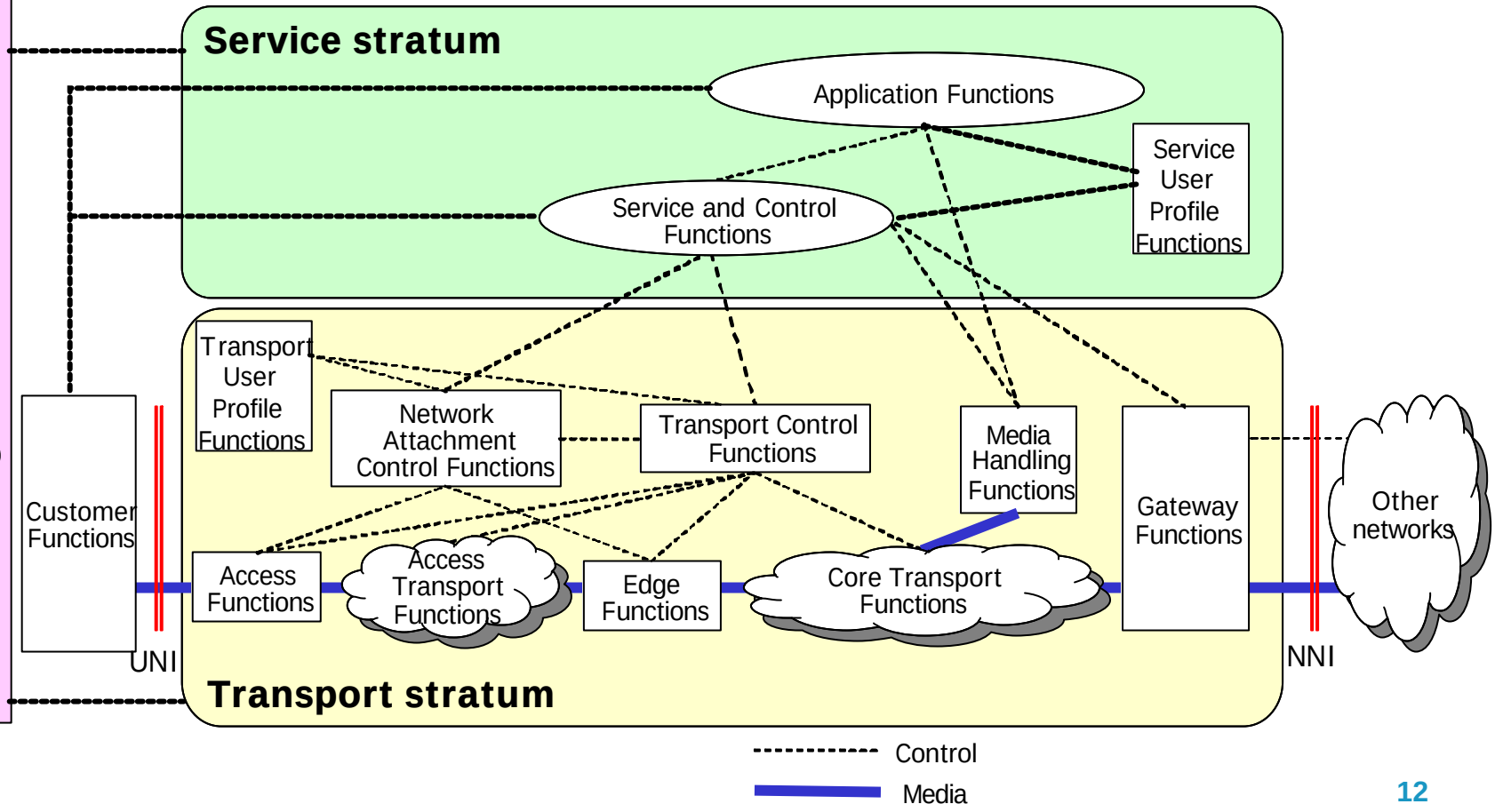
- PSTN/ISDN Emulation services
- PSTN/ISDN Simulation services
- Multimedia services
- Internet access
- Other services (data services etc.)
- Public service aspects (LI, ETS/TDR, etc.)

◆ Service Capabilities

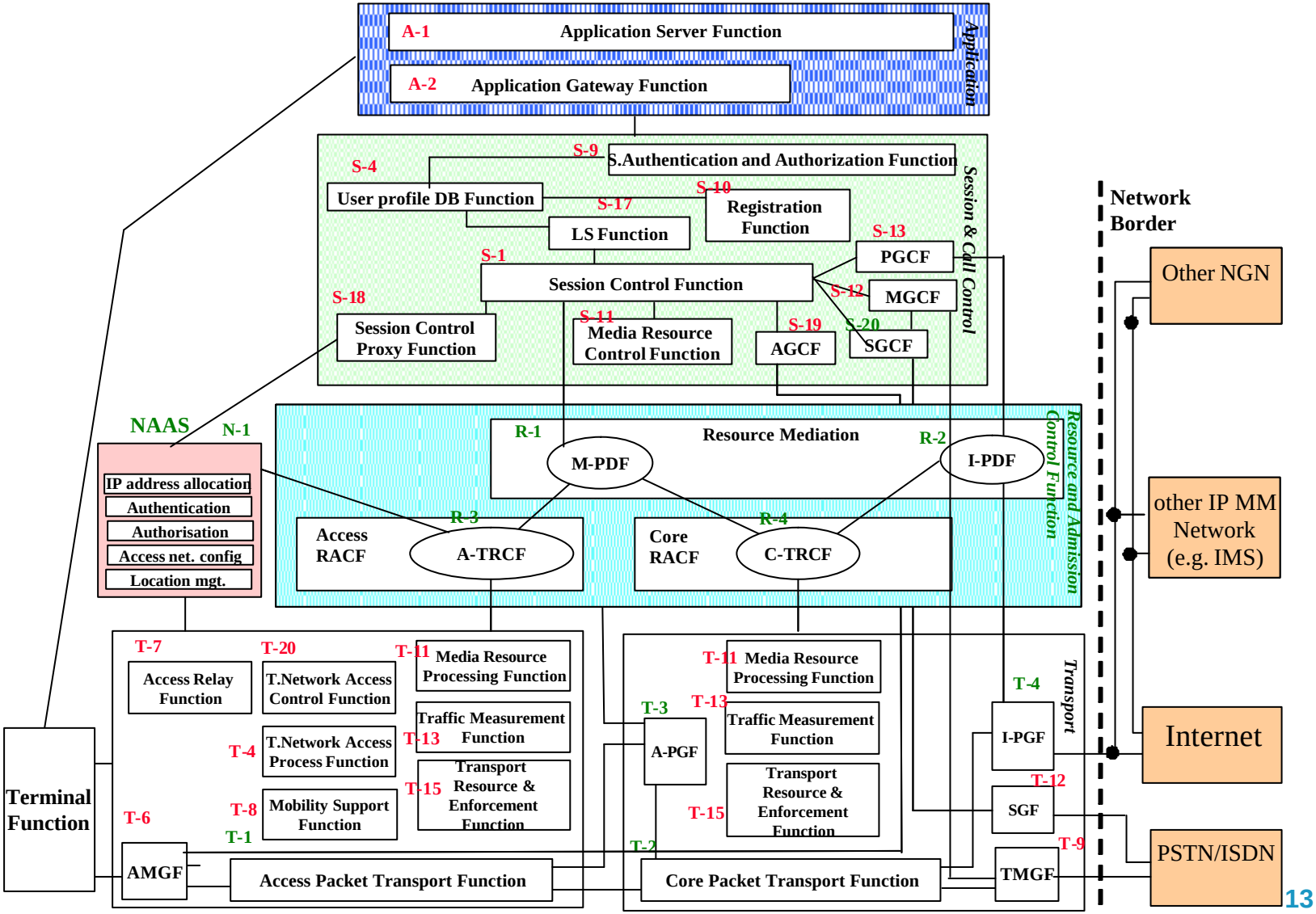
- Basic network capabilities
- Service support capabilities
  - Open Service Environment
  - Service Enablers
  - PSTN/ISDN Emulation support
- Public service support capabilities

Overall NGN Architecture

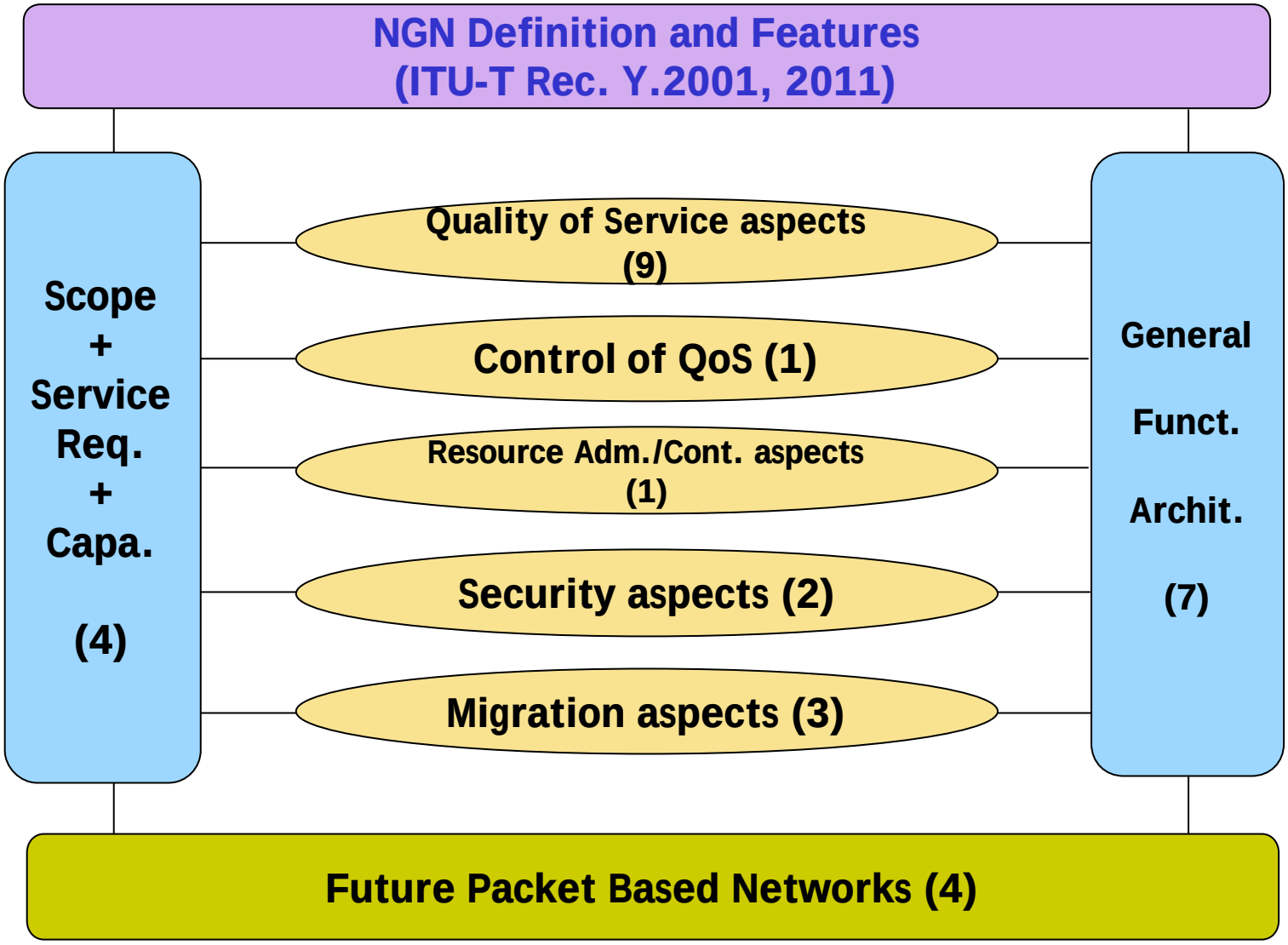
Overall NGN Architecture
- **General Functional Architecture**
- **Functional Architecture for specific instances (e.g. IMS based NGN)**



Functional Architecture Model



FGNGN Deliverables : Total 31



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

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-msnniqos)	FGNGN-OD-00107	3Q05	1/2/1	D	13

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 R1	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

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

Plan for 2005

- 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

NGN Management Focus Group (NGNMFG)

- 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

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.

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)

NGN Management Roadmap - 2

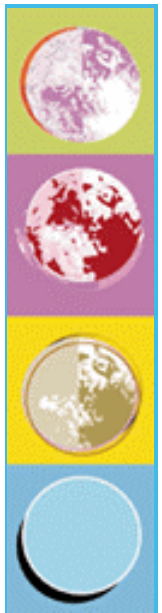
- 3GPP SA5
  - 32.111 series (alarm IRP)
  - 32.200 series (subset for IMS charging and billing)
  - 32.300 common management series (IRPs for notification, generic)
  - 32.600 series (interface IRPs for basic CM, kernel CM; NRM IRPs for generic, core; data definition IRPs for state management)
- OASIS
  - 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)

NGN Management Roadmap - 3

- ATIS TMOC (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 !!!