NGN Management Specifications

Annex 5 to the NGN Management Specification Roadmap v2.1

NGN Management Specifications

- **3GPP**
- ATIS
- DMTF
- ETSI
- IETF
- ITU-T
- MEF
- OASIS
- TMF

3GPP TS 23.125:
Flow-based charging requirements

- **Title:** 3GPP Overall high level functionality and architecture impacts of flow based charging; Stage 2
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG2
- **Organization leader (group leader):** Magnus Olsson
- **Type:** functional requirements
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** TBD
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S2.htm
- **Remarks:**

3GPP TS 32.240: Charging architecture and principles

- **Title:** 3GPP Telecommunication management; charging management; charging architecture and principles
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** architecture (functional and physical)
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.260: IP Multimedia Subsystem (IMS) charging

- **Title:** 3GPP Telecommunication management; charging management; IP Multimedia Subsystem (IMS) charging
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** functional requirements, interface (protocol-neutral, protocol-specific)
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125 and 32.240
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.296:
Online Charging System (OCS)

- **Title:** 3GPP Telecommunication management; charging management; Online Charging System (OCS): applications and interfaces
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** interface (protocol-neutral, protocol-specific)
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125 and 32.240
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.297: CDR file format and transfer

- **Title:** 3GPP Telecommunication management; charging management; charging data record (CDR) file format and transfer
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** interface (protocol-neutral), protocol
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125 and 32.240
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.298: CDR parameter description

- **Title:** 3GPP Telecommunication management; charging management; charging data record (CDR) parameter description
- **Status:** Release 6 - 3GPP approval expected 2Q05
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** interface (protocol-neutral)
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125 and 32.240
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.299:
Diameter charging applications

- **Title:** 3GPP Telecommunication management; charging management; charging architecture and principles
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** protocol
- **Role:** technology-specific
- **Release 1 application:** IMS charging management
- **Traceability:** 23.125
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:** an application of the Diameter base and credit control protocols

3GPP TS 32.111-1 / 32.111-2 / 32.111-3 / 32.111-4: Alarm IRP

- **Title:** 32.111-x series (4 specifications) Alarm IRP (Requirements; Information Service; CORBA & CMIP Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** management interface (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** Generic management interface (Interface IRP) applicable to alarm management within NGN systems
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.301 / 32.302 / 32.303 / 32.304: Notification IRP

- **Title:** 32.30x series (4 specifications) Notification IRP (Requirements; Information Service; CORBA & CMIP Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** management interface (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** Generic management interface (Interface IRP) applicable to notification subscription management within NGN systems
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.311 / 32.312 / 32.313 / 32.314: Generic IRP

- **Title:** 32.31x series (4 specifications) Generic IRP (Requirements; Information Service; CORBA & CMIP Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** management interface (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** Generic management interface (Interface IRP) providing generic interface IRP functions within NGN systems
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.601 / 32.602 / 32.603 / 32.604: Basic CM IRP

- **Title:** 32.60x series (4 specifications) Basic CM IRP (Requirements; Information Service; CORBA & CMIP Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** management interface (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** Generic management interface (Interface IRP) applicable to active configuration management / provisioning within NGN systems
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.621 / 32.622 / 32.623 / 32.624 / 32.625: Generic NRM IRP

- **Title:** 32.62x series (5 specifications) Generic Network Resources IRP (Requirements; Information Service; CORBA, CMIP & XML Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** information model (protocol-neutral and protocol-specific)
- **Role:** generic and technology-specific
- **Release 1 application:** Generic Network Resource Model (NRM) applicable to management of all NGN entities
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.631 / 32.632 / 32.633 / 32.634 / 32.635: Core NRM IRP

- **Title:** 32.63x series (5 specifications) Core Network Resources IRP (Requirements; Information Service; CORBA, CMIP & XML Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** information model (protocol-neutral and protocol-specific)
- **Role:** technology-specific & NGN specific
- **Release 1 application:** Network Resource model applicable to management of NGN Core Network including IP Multimedia System (IMS) entities
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.661 / 32.662 / 32.663 / 32.664: Kernel CM IRP

- **Title:** 32.66x series (4 specifications) Kernel CM IRP (Requirements; Information Service; CORBA & CMIP Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** management interface (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** Generic management interface (Interface IRP) providing configuration management notifications within NGN systems
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

3GPP TS 32.671 / 32.672 / 32.673 / 32.674 / 32.675: State Management IRP

- **Title:** 32.67x series (5 specifications) State Management IRP (Data Definition IRP - Requirements; Information Service; CORBA, CMIP & XML Solution Set)
- **Status:** Release 6 - 3GPP Approved
- **Organization (group):** 3GPP TSG SA WG5
- **Organization leader (group leader):** Christian Toche
- **Type:** information model (protocol-neutral and protocol-specific)
- **Role:** generic
- **Release 1 application:** State management data definitions applicable to management of all NGN entities.
- **Traceability:**
- **Location:** http://www.3gpp.org/ftp/Specs/html-info/TSG-WG--S5.htm
- **Remarks:**

NGN Management Specifications

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- **ATIS**
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- IETF
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- MEF
- OASIS
- TMF

ATIS-TMOC 0300075-2005: Usage Data Management

- **Title:** Usage Data Management for Packet-Based Services
  - Service-Neutral Architecture and Protocol Requirements
  - Service-Neutral Protocol Specification for Billing Applications
- **Status:** draft (approval due: Aug05)
- **Organization (group):** ATIS TMOC
- **Organization (group) leader:** Mike Fargano (TMOC Chair)
- **Type:** functional requirements, functional architecture, protocol and protocol-neutral information model
- **Role:** generic
- **Release 1 application:** service-neutral architecture, protocol, and information model for usage data management of NGN billing applications
- **Traceability:** ATIS-0300075 and ATIS-0300075.1-2005
- **Location of text:** See TMOC Liaison TMOC-051-2005 (July 21, 2005)
- **Remarks:** American National Standard for Trial-Use for Telecommunications

NGN Management Specifications

- 3GPP
- ATIS
- **DMTF**
- ETSI
- IETF
- ITU-T
- MEF
- OASIS
- TMF

DMTF Common Information Model (CIM)

- **Title:** Common Information Model (CIM)
- **Status:** Approved
- **Organization (group):** Distributed Management Task Force
- **Organization (group) leader:** Jeff Hilland (VP-Technology), Alex Zhdankin (DMTF Representative)
- **Type:** Information model (logical and physical, protocol-neutral)
- **Role:** generic (multi-technology) with the focus in IT resource management (Systems, Storage, Applications) and IP Networks
- **Release 1 application:** FCAPS management model, applicable to management of NGN transport stratum and certain entities of service stratum
- **Traceability:** CIM is defined graphically (UML) and textually (MOF and XML)
- **Location of model definition:** http://www.dmtf.org/standards/cim/cim_schema_v212
- **Remarks:** Defines abstractions for hardware/software asset management, notification support, model-based configuration of resources, performance and statistical management, and security and policy-based management.

DMTF Web-based Enterprise Management

- **Title:** Web-based Enterprise Management (WBEM, WS-Management, WSDM, CLP)
- **Status:** Approved
- **Organization (group):** Distributed Management Task Force
- **Organization (group) leader:** Jeff Hilland (VP-Technology), Alex Zhdankin (DMTF Representative)
- **Type:** Suite of Management Protocols
- **Role:** Generic
- **Release 1 application:** Network and element management interfaces, IT infrastructure management
- **Traceability:** XML schema and DTD
- **Location of text:** All specifications referenced and available from: http://www.dmtf.org/standards
- **Remarks:** WBEM Defines an HTTP binding and XML encoding to read/write/create/update/delete/query CIM classes and instances. WS-Management and WSDM enables CIM-based management of Enterprise Resources via Web services

NGN Management Specifications

- 3GPP
- ATIS
- DMTF
- **ETSI**
- IETF
- ITU-T
- MEF
- OASIS
- TMF

ETSI TS 188 001:
NGN OSS Architecture Release 1

- **Title:** NGN OSS Architecture Release 1
- **Status:** Approved
- **Organization (group):** ETSI TISPAN (WG8)
- **Organization leader (group leader):** Rainer Muench (Enrico Ronco)
- **Type:** functional architecture
- **Role:** NGN-specific
- **Release 1 application:**
- **Traceability:** OSS Interface Requirements and Vision for NGN OSS
- **Location of text:** http://pda.etsi.org/pda/queryform.asp
- **Remarks:**

ETSI TS 188 003: NGN OSS requirements

- **Title:** OSS definition of requirements and priorities for further network management specifications
- **Status:** Approved
- **Organization (group):** ETSI TISPAN (WG8)
- **Organization leader (group leader):** Rainer Muench (Enrico Ronco)
- **Type:** Requirements
- **Role:** NGN-specific
- **Release 1 application:** Release independent
- **Traceability:** ETSI TR 188 004, Vision for NGN OSS
- **Location of text:** http://pda.etsi.org/pda/queryform.asp
- **Remarks:**

ETSI TS 188 004: NGN OSS Vision

- **Title:** Vision for NGN OSS
- **Status:** Approved
- **Organization (group):** ETSI TISPAN (WG8)
- **Organization leader (group leader):** Rainer Muench (Enrico Ronco)
- **Type:** functional requirements
- **Role:** NGN-specific
- **Release 1 application:** release independent specification
- **Traceability:** Network & Service provider requirements and TISPAN NGN definition
- **Location of text:** http://pda.etsi.org/pda/queryform.asp
- **Remarks:**

NGN Management Specifications

- 3GPP
- ATIS
- DMTF
- ETSI
- **IETF**
- ITU-T
- MEF
- OASIS
- TMF

IETF NETCONF Protocol

- **Title:** NETCONF Configuration Protocol
- **Status:** Approved as Proposed Standard by the IESG (in RFC-Editor queue)
- **Organization (group):** IETF
- **Organization leader (group leader**Dan Romascanu (Andy Bierman, Simon Leinen)
- **Type:** protocol
- **Role:** generic
- **Release 1 application:** network element Interface
- **Traceability:**
- **Location of text:**
    - http://www.ietf.org/internet-drafts/draft-ietf-netconf-prot-12.txt
    - http://www.ietf.org/internet-drafts/draft-ietf-netconf-ssh-06.txt
- **Remarks: Charter -** http://www.ietf.org/html.charters/netconf-charter.html

IETF SNMPv3

- **Title:** Simple Network Management Protocol version 3
- **Status:** approved
- **Organization (group):** IETF (SNMPv3 WG)
- **Organization leader (group leader):** Dave Harrington
- **Type:** protocol plus conformance
- **Role:** generic
- **Release 1 application:** primarily for monitoring (including event reporting) purposes for NE interfaces
- **Traceability:**
- **Location of text:** IETF STD 62 (rfc 3411, 3412, 3413, 3414, 3415, 3416, 3417)
- **Remarks:** The primary standard for the Internet-Standards Management Framework (see RFC 3410), SNMP is widely used, and has hundreds of industry-standard and proprietary management information modules in common usage with an architecture applicable to management of all NGN entities, especially element management. Depends on IETF STD 58, SMIv2 (RFC 2578, 2579, 2580).

IETF SMIv2

- **Title:** Structure of Management Information version 2
- **Status: approved**
- **Organization (group):** IETF (SNMPv2 WG)
- **Organization contact:** Dave Harrington (SNMPv3 WG) (ietfdbh@comcast.net)
- **Type:** information modeling language plus conformance
- **Role:** generic
- **Release 1 application:** support for SNMPv3
- **Traceability:**
- **Location of text:** IETF STD 58 (RFC 2578, 2579, 2580)
- **Remarks:** The information modeling language for the Internet-Standard Management Framework (see RFC 3410), SMIv2 is widely used, and is the modeling language used for hundreds of industry-standard and proprietary management information modules in common usage.

IETF RFC3444: Difference between Information Models and Data Models

- **Title:** On the Difference between Information Models and Data Models
- **Status:** RFC (approved as Informational RFC, Jan 2003)
- **Organization (group):** IRTF/IETF (NMRG)
- **Organization (group) leader:** Aiko Pras (Juergen Schoenwaelder)
- **Type:** background information/considerations
- **Role:** generic
- **Release 1 application:** not sure yet
- **Traceability:** fixed/approved document
- **Location of text:** http://www.ietf.org/rfc/rfc3444.txt?number=3444
- **Remarks:**
  - good considerations for Information And Data modeling efforts
  - submitted by Bert Wijnen

IETF RFC3535: Overview of the 2002 IAB Network Management Workshop

- **Title:** Overview of the 2002 IAB Network Management Workshop
- **Status:** RFC (approved Informational RFC, May 2003)
- **Organization (group):** IETF (IAB)
- **Organization (group) leader:** Juergen Schoenwaelder (Bert Wijnen)
- **Type:** Operational considerations and requirements
- **Role:** generic
- **Release 1 application:** operational requirements
- **Traceability:** fixed document
- **Location of text:** http://www.ietf.org/rfc/rfc3535.txt?number=3535
- **Remarks:**
  - Good overview of operational aspects and requirements for IP network management
  - Submitted by Bert Wijnen

NGN Management Specifications

- 3GPP
- ATIS
- DMTF
- ETSI
- IETF
- **ITU-T**
- MEF
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- TMF

ITU-T M.3016 series: Security for the Management Plane

- **Title:** Security for the Management Plane
- **Status:** Approved
- **Organization (group):** ITU-T SG 4 (Q11/4)
- **Organization (group) leader:** Sidor (Soukup)
- **Type:** functional requirements
- **Role:** generic
- **Release 1 application:** security requirements, services, and mechanisms for FCAPS interfaces and OSSs
- **Traceability:** X.805
- **Location of text:** http://www.itu.int/rec/T-REC-M/en
- **Remarks:**
  - significant expansion of the requirements in M.3016-1997
  - provides a restructuring of T1.276

ITU-T M.3050 series: Enhanced Telecom Operations Map®

- **Title:** Enhanced Telecom Operations Map® (eTOM)
- **Status:** M.3050 series approved, June 2004
- **Organization (group):** ITU-T SG 4 (Q6/4)
- **Organization leader (group leader):** Sidor (Dini)
- **Type:** functional requirements
- **Role:** generic
- **Release 1 application:** Service provider process model guiding functional and architectural design for TMN
- **Traceability:** NA
- **Location of text:** http://www.itu.int/rec/T-REC-M/en
- **Remarks:**
  - M.3050 series is based on, and reuses TMF GB921 V4.0 (= eTOM)
  - enhances TMN with detailed business process model; provides explicit mappings between eTOM and M.3400 TMN management functions

ITU-T M.3060/Y.2401: Management of Next Generation Networks

- **Title:** Principles for the Management of Next Generation Networks
- **Status:** approved
- **Organization (group):** ITU-T SG 4 (Q.8/4)
- **Organization leader (group leader):** Sidor (Chisholm)
- **Type:** functional requirements, architecture
- **Role:** generic
- **Release 1 application:** release independent specification
- **Traceability: NA**
- **Location of text:** http://www.itu.int/rec/T-REC-M.3060/en
- **Remarks:**

ITU-T M.3341: QoS/SLA Management Service

- **Title:** Requirements for QoS/SLA management over the TMN X-Interface for IP-based Services
- **Status:** approved 12/2003
- **Organization (group):** ITU-T SG4 (Q7/4)
- **Organization leader (group leader):** Sidor (Smith)
- **Type:** functional requirements
- **Role:** technology-specific (IP technology)
- **Release 1 application:** Service Management Function (B2C, C2B, B2B)
- **Traceability:** M.3060/Y.2401
- **Location of text:** http://www.itu.int/rec/T-REC-M.3341/en
- **Remarks:** provides supporting services for ETS Management Service found in M.3350

ITU-T M.3350:
ETS Management Service

- **Title:** TMN service management requirements for information interchange across the TMN X-interface to support provisioning of Emergency Telecommunication Service (ETS)
- **Status:** approved 05/2004
- **Organization (group):** ITU-T SG4 (Q7/4)
- **Organization leader (group leader):** Sidor (Smith)
- **Type:** architecture functional requirements
- **Role:** application-specific (ETS application**)**
- **Release 1 application:** Service Management Function (B2C, C2B, B2B)
- **Traceability:** M.3060/Y.2401
- **Location of text:** http://www.itu.int/rec/T-REC-M.3350/en
- **Remarks:** It is critical that ETS capabilities, including the ETS management service, be carried forward into NGN

ITU-T G.7718/Y.1709: Optical Control Plane Management Requirements

- **Title:** Framework for ASON Management

- **Status:** Approved on 2/2005

- **Organization (group):** ITU-T SG 15 (Q14/15)

- **Organization (group) leader:** Maeda (Lam)

- **Type:** architecture (framework and functional requirements)

- **Role:** Transport control plane-specific

- **Release 1 application:** FCAPS management requirements, applicable to management and control of NGN transport stratum, includes control plane management

- **Traceability:** M.3010, G.8080/Y.1304, G.7710, G.7712, G.7713/Y.1704 series, G.7714/Y.1705 series, G.7715/Y.1706 series

- **Location of text:** http://www.itu.int/rec/T-REC-G.7718/en

- **Remarks:**

ITU-T G.7718.1/Y.1709.1: Optical Control Plane Management Info Model

- **Title:** Protocol-neutral Management Information Model for the Control Plane View
- **Status:** draft
- **Organization (group):** ITU-T SG 15 (Q14/15)
- **Organization (group) leader:** Maeda (Lam)
- **Type:** Information model (protocol-neutral)
- **Role:** Transport control plane-specific
- **Release 1 application:** FCAPS management information model, applicable to management and control of NGN transport stratum, includes control plane management
- **Traceability:** G.7718/Y.1709
- **Location of text:** NGNMFG Reference Material Directory
- **Remarks:** Focus on EML-NEL interface

ITU-T Q.838.1: EPON Management Requirements

- **Title:** Requirements and analysis for the management interface of Ethernet passive optical networks (EPON)
- **Status:** Approved
- **Organization (group):** ITU-T SG 4 (Q 10/4)
- **Organization leader (group leader):** Dave Sidor (Wang Zhili)
- **Type:** requirements
- **Role:** technology-specific
- **Release 1 application:** Ethernet management
- **Traceability:** NA
- **Location of text:** http://www.itu.int/rec/T-REC-Q.838.1/en
- **Remarks:**

ITU-T Q.840.1: Requirements for EoT and Metro Ethernet

- **Title:** Requirements and Analisys for NMS-EMS Management Interface of Ethernet over Transport and Metro Ethernet
- **Status:** draft (consent planned May 2006)
- **Organization (group):** ITU-T SG 4 (Q.10/4)
- **Organization leader (group leader):** Dave Sidor (Wang Zhili)
- **Type:** requirements
- **Role:** technology-specific
- **Release 1 application:** ethernet management
- **Traceability:** IEEE 802.3
- **Location of text:** see NGNMFG Reference Material directory
- **Remarks:**

ITU-T X.alarm-neutral: Protocol-neutral Alarm Reporting Function

- **Title:** Protocol-neutral Alarm Reporting Function
- **Status:** draft (consent planned May 2006)
- **Organization (group):** ITU-T SG 4 (Q 9/4)
- **Organization leader (group leader):** Dave Sidor (Knut Johannessen)
- **Type:** information model (protocol-neutral)
- **Role:** generic
- **Release 1 application:** Alarm Management
- **Traceability:** X.733
- **Location of text:** see NGNMFG Reference Material directory
- **Remarks:**

NGN Management Specifications

- 3GPP
- ATIS
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- ETSI
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- **MEF**
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MEF: MEF 7

- **Title:** EMS-NMS Information Model (for Metro Ethernet Network)
- **Status:** approved 10/2004
- **Organization (group):** MEF (Metro Ethernet Forum)
- **Organization leader (group leader):** Nan Chen (Andy Mayer)
- **Type:** Management interface information model (protocol-neutral)
- **Role:** technology-specific (Ethernet technology)
- **Release 1 application:** FCAPS management information model, applicable to management and control of NGN transport stratum.
- **Traceability: MEF 4, MEF 10, MEF 12, MEF 15**
- **Location of text:** http://www.metroethernetforum.org/TechSpec.htm
- **Remarks:** Focus on NMS-EMS interface

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- ATIS
- DMTF
- ETSI
- IETF
- ITU-T
- MEF
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- TMF

OASIS WSDM-MUWS v1.1

- **Title:** Web Services Distributed Management: Management Using Web Services (WSDM-MUWS) v1.1

- **Status:** Open Public Review period from March 15, 2006 through May 13, 2006

- **Organization (group):** Organization for the Advancement of Structured Information Standards (OASIS)

- **Organization leader (group leader):** OASIS WSDM TC co-chairs

    Heather Kreger, IBM (kreger@us.ibm.com)

    Winston Bumpus, Dell (winston_bumpus@dell.com)

- **Type:** a profile of protocols with some specific usage and XML definitions

- **Role:** generic

- **Release 1 application:** basis for 3GPP SA 5 IRP Solution Sets using Web Services

- **Traceability:** fixed document

- **Location:** WSDM 1.1 public review specs (doc, html, pdf, xml, xsd, wsdl): http://www.oasis-open.org/committees/download.php/17239/WSDM-1.1PublicReview-01.zip

NGN Management Specifications

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- ATIS
- DMTF
- ETSI
- IETF
- ITU-T
- MEF
- OASIS
- **TMF**

TM Forum SID
Shared Information and Data Model
GB922 and GB922 / Addenda 5PR and 5LR

- **Title:** The Shared Information and Data Model (SID)
- **Status:** TMF Member Evaluation
- **Organization (group):** TM Forum (SID Team)
- **Organization (group) leader:** Giuseppe Covino
  Tony Richardson (TM Forum Liaison contact)
- **Type:** Information Model
- **Role:** Technology Neutral
- **Release 1 application:** NGN Information Model Framework
- **Traceability:** UML, various Industry Information Models
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** Provides an extensible framework for defining information and data (as well as incorporating information from other fora).
  First submission is limited to Concepts and Principles in Normative form, also Physical Resource, and Logical Resource specifications provided in Non-normative form at this stage (will also be supplied in Normative form when review cycle completed within TMF).

TM Forum TMF053B TMF053C TMF053D TMF053F - The NGOSS Technology-Neutral Architecture v4.5

- **Title:** The NGOSS Technology-Neutral Architecture (TNA)
- **Status:** TMF Member Evaluation
- **Organization (group):** TM Forum (Lifecycle Team)
- **Organization (group) leader:** Dave Raymer

  Tony Richardson (TM Forum Liaison contact)
- **Type:** Architecture (logical and functional)
- **Role:** Technology Neutral
- **Release 1 application:** support of NGN Architecture
- **Traceability:** DIOA – related specifications
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** Provides basis of a distributed systems framework for NGN Management system services (SOA support etc.)

TMF513: Multi-Technology NM (MTNM) Business Agreement (BA)

- **Title:** Multi-Technology Network Management, NML-EML Interface, Business Agreement
- **Status:** TMF Approved (v3.0), TMF Member Evaluation (v3.5)
- **Organization (group):** TM Forum (MTNM Team)
- **Organization (group) leader:** Keith Dorking (Felix Flemisch) Tony Richardson (TM Forum Liaison contact)
- **Type:** functional requirements
- **Role:** network generic (multi-technology)
- **Release 1 application:** FCAPS management interface requirements (M.3050-series) and use cases (Q.827.1, M.3020), applicable to management of NGN transport stratum (v3.0), includes control plane mgmt (v3.5)
- **Traceability:** to customer market requirements, see also Remarks
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** NML-EML interface according to M.3010; based on G.805 and G.809 principles; related to M.3050, M.3x00, Y.2011, M.3060, et al.

TMF608: MTNM Information Agreement (IA)

- **Title:** Multi-Technology Network Management, NML-EML Interface, Information Agreement
- **Status:** TMF Approved (v3.0), TMF Member Evaluation (v3.5)
- **Organization (group):** TM Forum (MTNM Team)
- **Organization (group) leader:** Keith Dorking (Felix Flemisch)
  Tony Richardson (TM Forum Liaison contact)
- **Type:** analysis model (protocol-neutral information/data model)
- **Role:** network generic (multi-technology)
- **Release 1 application:** FCAPS management interface UML model (diagrams, dictionary, MDL file), applicable to management of NGN transport stratum (v3.0) including control plane (v3.5)
- **Traceability:** to MTNM Business Agreement (BA) (TMF513)
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** see MTNM BA; related to M.3020-series and M.3100-series

TMF814: MTNM Solution Set (SS) in CORBA IDL

- **Title:** Multi-Technology Network Management, NML-EML Interface, Solution Set in CORBA IDL
- **Status:** TMF Approved (v3.0), TMF Member Evaluation (v3.5)
- **Organization (group):** TM Forum (MTNM Team)
- **Organization (group) leader:** Keith Dorking (Felix Flemisch) Tony Richardson (TM Forum Liaison contact)
- **Type:** design model (protocol-specific information/data model)
- **Role:** network generic (multi-technology)
- **Release 1 application:** FCAPS management interface CORBA IDL specification (coarse-grained SOA), applicable to management of NGN transport stratum (v3.0) including control plane (v3.5)
- **Traceability:** to MTNM Information Agreement (IA) (TMF608)
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** see MTNM BA; related to Q.816-series and X.780-series

TMF814A: MTNM Implementation Statement (IS) Templates for CORBA

- **Title:** Multi-Technology Network Management, NML-EML Interface, Implementation Statement Templates and Guideline
- **Status:** TMF Approved (v3.0), TMF Member Evaluation (v3.5)
- **Organization (group):** TM Forum (MTNM Team)
- **Organization (group) leader:** Keith Dorking (Felix Flemisch) Tony Richardson (TM Forum Liaison contact)
- **Type:** conformance
- **Role:** network generic (multi-technology)
- **Release 1 application:** FCAPS management interface interoperability and feature descriptions for CORBA (Implementation Conformance Statement Proformas à la X.781), applicable to management of NGN transport stratum (v3.0) including control plane (v3.5)
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Traceability:** to MTNM CORBA Solution Set (SS) (TMF814)
- **Remarks:** see MTNM BA; related to X.781

TMF MTNM Solution Suite: Supporting Documentation (SD)

- **Title:** Multi-Technology Network Management, NML-EML Interface, Supporting Documentation
- **Status:** TMF Approved (v3.0), TMF Member Evaluation (v3.5)
- **Organization (group):** TM Forum (MTNM Team)
- **Organization (group) leader:** Keith Dorking (Felix Flemisch)
  Tony Richardson (TM Forum Liaison contact)
- **Type:** supplementary material (normative and informative parts)
- **Role:** network generic (multi-technology)
- **Release 1 application:** FCAPS management interface semantics and parameter details (includes functional model), applicable to mgmt of NGN transport stratum (v3.0) including control plane (v3.5)
- **Traceability:** to entire MTNM solution suite
- **Location of text:** http://www.tmforum.org/industrygroup/
  (usercode = ngnlogin, password = c0llaborate)
- **Remarks:** consists of 43 (v3.0) supporting documents