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SERIES M: TELECOMMUNICATION MANAGEMENT,
INCLUDING TMN AND NETWORK MAINTENANCE

Telecommunications management network

**Framework for NGN service fulfilment and
assurance management across the business to
business and customer to business interfaces**

Recommendation ITU-T M.3340

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Recommendation ITU-T M.3340

Framework for NGN service fulfilment and assurance management across the business to business and customer to business interfaces

Summary

Recommendation ITU-T M.3340 contains the business to business/customer to business (B2B/C2B) interface framework for NGN service fulfilment and assurance management in the NGN management view. The framework of the interface across several administrative domains in the NGN service supply chain is provided. The interface framework is provided using the telecommunications management network (TMN) interface specification methodology described in Recommendation ITU-T M.3020, the NGN management architecture described in Recommendation ITU-T M.3060/Y.2401, the public B2B business operations map described in Recommendation ITU-T M.3050 Supplement 2.

Source

Recommendation ITU-T M.3340 was approved on 14 May 2009 by ITU-T Study Group 2 (2009-2012) under Recommendation ITU-T A.8 procedure.

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Appointment management, B2B/C2B, next generation network, service, service assurance management, service customer, service provider, SLA, test, trouble administration, service fulfilment management.

FOREWORD

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Introduction

This Recommendation contains the B2B/C2B interface framework for NGN service fulfilment and assurance management. The framework of the interface across several administrative domains in the NGN service supply chain is provided.

In a NGN service supply chain, the service customer, the service provider, and the network operator interwork with each other for service provisioning, service assurance, and service billing. Service management information is exchanged across interfaces which may be client-to-service-provider or service-provider-to-service-provider interfaces and may represent inter-jurisdictional communications. The scope of this Recommendation provides an interface framework for NGN service fulfilment and assurance management across several administrative domains.

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Recommendation ITU-T M.3340

Framework for NGN service fulfilment and assurance management across the business to business and customer to business interfaces

1 Scope

This Recommendation contains the B2B/C2B interface framework for NGN service fulfilment and assurance management. The framework of interface across several administrative domains in the service supply chain is provided. It assumes a multi-service provider environment and is aimed at service fulfilment and assurance management high-level functional framework across B2B/C2B interface.

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T M.3050.1] Recommendation ITU-T M.3050.1 (2007), *Enhanced Telecom Operations Map (eTOM) – The business process framework*.

[ITU-T M.3060] Recommendation ITU-T M.3060/Y.2401 (2006), *Principles for the Management of Next Generation Networks*.

3 Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 administrative domain [b-ITU-T G.805]: For the purposes of this Recommendation, an administrative domain represents the extent of resources which belong to a single player such as a network operator, a service provider or an end-user. Administrative domains of different players do not overlap amongst themselves.

3.1.2 B2B/C2B interface [ITU-T M.3060]: Synonymous to X interface.

3.1.3 end-user [ITU-T M.3050.1]: The end user is the actual user of the products or services offered by the enterprise. The end user consumes the product or service.

NOTE – The end-user may not be the entity that actually pays or has responsibility for payment of the bill.

3.1.4 function block [b-ITU-T M.3010]: The smallest (deployable) unit of TMN management functionality that is subject to standardization.

3.1.5 interface [b-ITU-T M.3010]: An architectural concept that provides interconnection between physical blocks at reference points.

3.1.6 management function [b-ITU-T M.3010]: The smallest part of a management service as perceived by the user of the service.

3.1.7 managed object referring to test [b-ITU-T X.745]: A managed object which is used to refer to the functionalities that are being tested.

- 3.1.8 management service** [b-ITU-T M.3010]: A management service is an offering fulfilling specific telecommunications management needs.
- 3.1.9 measurement point** [b-ITU-T M.3341]: The physical or logical point at which measurements can be made and to which the data obtained is related, e.g., a measurement point in a network or a step in the business process dependant upon the service life cycle.
- 3.1.10 network operator** [b-ITU-T M.3343]: An organization that operates a NGN transport stratum. A network operator may offer both transport stratum and service stratum. A NGN network operator may or may not provide NGN service stratum services.
- 3.1.11 next generation network (NGN)** [b-ITU-T Y.2001]: A packet-based network able to provide telecommunication services and able to make use of multiple broadband, QoS-enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies. It enables unfettered access for users to networks and to competing service providers and/or services of their choice. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users.
- 3.1.12 observation** [b-ITU-T M.3341]: An observation is used by the service customer to monitor the QoS of the telecommunication service provided to the SC by the SP. An observation is associated with exactly two measurement points.
- 3.1.13 operations system (OS)** [b-ITU-T M.3010]: A physical block which performs operations systems functions (OSFs).
- 3.1.14 operations systems function (OSF)** [b-ITU-T M.3010]: A function block that processes information related to the telecommunications management for the purpose of monitoring/coordinating and/or controlling telecommunication functions including management functions (i.e., the TMN itself).
- 3.1.15 partner** [ITU-T M.3050.1]: A partner has a stronger profit and risk-sharing component in their business agreement with the enterprise, than a supplier would have. A partner generally is more visible to the enterprise's customer than a supplier would be. A partner might be part of an alliance, a joint service offering, etc.
- 3.1.16 product** [ITU-T M.3050.1]: Product is what an entity (supplier) offers or provides to another entity (customer). Product may include service, processed material, software or hardware, or any combination thereof. A product may be tangible (e.g., goods) or intangible (e.g., concepts) or a combination thereof. However, a product ALWAYS includes a service component.
- 3.1.17 service customer** [ITU-T M.3050.1]: The entity which buys products and services from the Enterprise or receives free offers or services. A customer may be a person or a business. [ITU-T M.3050.1] defines this term simply as "customer".
- 3.1.18 service** [ITU-T M.3050.1]: Services are developed by a service provider for sale within products. The same service may be included in multiple products, packaged differently, with different pricing, etc.
- 3.1.19 service provider** [b-ITU-T M.3320]: A general reference to an entity who provides telecommunication services to Customers and other users either on a tariff or contract basis. A Service Provider may or may not operate a network. A Service Provider may or may not be a Customer of another Service Provider.
- 3.1.20 test conductor** [b-ITU-T X.745]: A manager that issues test operations.
- 3.1.21 test execution** [b-ITU-T X.745]: That phase of a test during which the test outcome is being determined.
- 3.1.22 test invocation** [b-ITU-T X.745]: A specific instance of test, from the time of initiation to termination.

3.1.23 test object [b-ITU-T X.745]: A managed object that exists only for a controlled test invocation and which has attributes, operations and notifications that pertain to that instance of test.

3.1.24 test performer [b-ITU-T X.745]: An agent which receives test operations.

3.1.25 trouble administration [b-ITU-T M.3343]: Trouble administration consists of a set of functions that enable troubles to be reported, tracked, and maintained.

3.1.26 trouble resolution [b-ITU-T M.3343]: It is the process of diagnosis and repair action required to clear a trouble. It includes the process of assigning specific work items or overall responsibility for clearing and closing the trouble report.

3.1.27 X interface [b-ITU-T M.3010]: An interface applied at x reference points.

NOTE – SP and SC used in this Recommendation mean SP role and SC role.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 appointment management: Appointment management consists of a set of functions that enable a mutual acceptable appointment time to be established between the SP and SC.

3.2.2 customer order: A customer order is an agreement used to procure products. A customer can request one or more products in one customer order. A customer order can be decomposed into one or more service orders.

3.2.3 service assurance: Service assurance in this Recommendation consists of all the activities that are needed to monitor and maintain service quality across B2B/C2B interface. It covers trouble administration, testing management, QoS/service level agreement management and appointment management.

3.2.4 service fulfilment: Service fulfilment in this Recommendation consists of all the activities that are needed to configure and activate service across B2B/C2B interface. It covers preorder management, order management, testing management, QoS/service level agreement management¹ and appointment management.

3.2.5 service order: A service order represents a customer order decomposed into the services through which the products are realized. Service orders are only viewable inside a SP domain and never across the B2B and C2B interface.

3.2.6 service user: The end user of the service. The service user may or may not have a contractual relationship with the service provider, but other entities, e.g., corporate telecommunications department, may actually maintain the contractual relationship with the SP.

4 Abbreviations

This Recommendation uses the following abbreviations and acronyms:

B2B	Business to Business
BOM	Business Operation Map
C2B	Customer to Business
CPE	Customer Premises Equipment

¹ (Manage QoS/SLA Violation Process) ensures that the Customer is informed of any planned maintenance or other scheduled events likely to impact fulfilment of the customer's service order. QoS/SLA Management also refers to the SP performance against the Customer Requested Due Date or Standard Implementation Interval contained in the Contract.