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SERIES M: TELECOMMUNICATION MANAGEMENT,
INCLUDING TMN AND NETWORK MAINTENANCE

Telecommunications management network

Enhanced Telecom Operations Map (eTOM)

Supplement 4: An eTOM primer

ITU-T Recommendation M.3050 – Supplement 4

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TELECOMMUNICATION MANAGEMENT, INCLUDING TMN AND NETWORK MAINTENANCE

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ITU-T Recommendation M.3050

Enhanced Telecom Operations Map (eTOM)

Supplement 4

An eTOM primer

Summary

ITU-T M.3050.x Recommendation sub-series contain a reference framework for categorizing the business activities that a service provider will use. The Enhanced Telecom Operations Map[®] (or eTOM for short), which has been developed by the TeleManagement Forum, describes the enterprise processes required by a service provider and analyses them to different levels of detail according to their significance and priority for the business. This business process approach has built on the concepts of Management Services and Functions in order to develop a framework for categorizing all the business activities.

This supplement provides an introductory view of some of the concepts, goals and structure of the eTOM work. It should be read in conjunction with the ITU-T M.3050.x Recommendation sub-series and Supplements.

Source

Supplement 4 to ITU-T Recommendation M.3050 was agreed on 14 February 2007 by ITU-T Study Group 4 (2005-2008).

The ITU-T M.3050.x Recommendation sub-series is based on the Enhanced Telecom Operations Map[®] (eTOM) which has been developed by the TeleManagement Forum (TMF).

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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ITU-T Recommendation M.3050

Enhanced Telecom Operations Map (eTOM)

Supplement 4

An eTOM primer

1 Scope

The Enhanced Telecom Operations Map (eTOM)[®] [b-TMF GB921] has been developed by the TeleManagement Forum as a reference framework for categorizing all the business activities that a service provider will use.

This Recommendation is part of a series of ITU-T texts dealing with eTOM (Release 7.0), which have the following structure:

M.3050.0	eTOM – Introduction.
M.3050.1	eTOM – The business process framework. (TMF GB921 Release 7.0).
M.3050.2	eTOM – Process decompositions and descriptions. (TMF GB921 Addendum D – Release 7.0).
M.3050.3	eTOM – Representative process flows. (TMF GB921 Addendum F – Release 4.5).
M.3050.4	eTOM – B2B integration: Using B2B inter-enterprise integration with the eTOM. (TMF GB921 Addendum B – Release 6.1).
M.3050 Supplement 1	eTOM – ITIL application note (TMF GB921 Application note V – Release 6.0).
M.3050 Supplement 2	eTOM – Public B2B Business Operations Map (BOM). (TMF GB921 Addendum C – Release 4).
M.3050 Supplement 3	eTOM to M.3400 mapping.
M.3050 Supplement 4	An eTOM primer (TMF GB921 Addendum P – Release 4.5).

Additional parts will be published as material becomes available.

This series of ITU-T Recs M.3050.x build on the management services approach described in [ITU-T M.3010] and [ITU-T M.3200] by developing a business process framework.

This supplement provides a mapping to the IT Infrastructure Library.

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 published regularly. 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.3010] ITU-T Recommendation M.3010 (2000), *Principles for a telecommunications management network*.
- [ITU-T M.3200] ITU-T Recommendation M.3200 (1997), *TMN management services and telecommunications managed areas: overview*.

3 Definitions

This Recommendation uses the following term defined elsewhere:

3.1 eTOM: See ITU-T Rec. M.3050.0.

4 Abbreviations and acronyms

The following abbreviations and acronyms are additional to those defined in ITU-T Rec. M.3050.1:

EM	Enterprise Management
eTOM	enhanced Telecom Operations Map
FAB	Fulfilment, Assurance and Billing
ITIL	IT Infrastructure Library
NGOSS	Next Generation Operations Systems and Software
OSR	Operations Support and Readiness
SIP	Strategy, Infrastructure and Product
SP	Service Provider
SMART	Service Management Automation and Re-engineering Team
TM Forum	TeleManagement Forum

5 Introduction

5.1 What is eTOM?

The telecom industry is facing unprecedented churn and the struggle to remain profitable in the face of more competition, higher customer expectations, falling market share and growing price pressures. The industry has a need to clearly define and understand the business processes involved in order to tackle these issues. It also needs to reach a consensus on the common process view for equipment suppliers, applications builders and integrators to build management systems by combining third party and in-house developments.

The enhanced Telecom Operations Map (or eTOM for short) is an ongoing TM Forum initiative to deliver a business process model or framework for use by service providers and others within the telecommunications industry. The goal is to set a vision for the industry to enable it to compete successfully through the implementation of business process-driven approaches to managing the enterprise. This includes ensuring integration among all vital enterprise support systems concerned with service delivery and support.

The focus of the eTOM is on the business processes used by service providers, the linkages between these processes, the identification of interfaces and the use of customer, service, resource, supplier/partner and other information by multiple processes. The TM Forum eTOM business process framework is a reference framework for categorizing all the business activities that a service provider will use in a structured manner that allows these to be addressed at various levels of detail. For such companies, it serves as the blueprint for process direction and provides a neutral reference point for internal process re-engineering needs, partnerships, alliances and general

working agreements with other providers. For suppliers, eTOM outlines potential boundaries of software components to align with the customers' needs and highlights the required functions, inputs and outputs that must be supported by products.

A particular strength of eTOM as a business process framework is that it is part of the TM Forum NGOSS (Next Generation Operations Systems and Software) program and links with other work under way in NGOSS.

So, eTOM defines a telecommunications service provider business process framework. This means that it is oriented to SPs in the telecommunications sector (although it has been found to be useful in other areas also) and it aims to provide a business-oriented view of the SP enterprise. This view is useful for planners, managers, strategists, etc., who need to view the enterprise in business terms without immediate concern for the nature of the way that these business needs are organized or automated within the business. Therefore, eTOM emphasizes issues such as process structure, process components, process interactivity and the business roles and responsibilities to which these relate. In defining these aspects, eTOM also provides a basis for setting requirements for system solutions, technical architectures, technology choices and implementation paths but it is neutral towards the particular way that these requirements are met.

Thus, eTOM can be considered to have two faces: one oriented towards the business, customer, products, etc., and one towards solutions, systems and implementations supporting the business.

It should be recognized that, through the TM Forum work, eTOM represents an industry-consensus on the service provider processes, which has been harmonized across the global scene and is based on member contributions. It is allowable, and indeed expected, that this will mean that eTOM must be tailored and/or extended for use within an individual company. In particular, eTOM does not seek to constrain the way that the processes fit into a specific organization. An advantage of this positioning of eTOM as a framework, rather than a directly-implemented specification, is that differentiation amongst eTOM users is not restricted, which is vital to allow specialization and competition. In addition, as already mentioned, eTOM does not fix upon particular routes to implementation and is thus valid in many different environments with varying levels of automation, technology, etc.

So, eTOM is a framework, not a final implementation specification. It will typically be customized and extended by users for their own business needs but provides a vital common reference that is industry-recognized and represents a *de facto* standard, and now, through ITU-T, an official standard within and between companies on business process definition.

5.2 Where did eTOM come from?

Work on business process modelling by the TeleManagement Forum (formerly the Network Management Forum) began in the early 1990s with the Service Management Automation and Re-engineering Team (SMART) that gathered worldwide service provider views and distilled an initial business process model. This work grew in the Telecom Operations Map (TOM) during the mid-90s, leading to the stabilization and publication of TOM in its final form towards the end of that decade.

The TOM work gained wide industry support but the scope of the TOM model did not cover the whole of the SP enterprise and only focused on the main operations processes embodying the traditional telecoms activities around fulfilment, assurance and billing (FAB). Increasingly, the complexities of interworking in the deregulated, competitive telecoms market required a complete enterprise view, and new business demands triggered by the Internet, and electronic commerce generally, led to a move to expand TOM to address this wider perspective.

Thus, eTOM – for enhanced TOM – was initiated as a work programme led by TM Forum as we entered the new millennium. Initial releases of eTOM were provided to TM Forum members during 2001 and then a TM Forum-approved version of eTOM – GB921 v3.0 – was released in mid-2002.

This was welcomed and adopted widely and so further work to cement agreements, incorporate industry feedback and extend the level of detail described resulted in further intermediate versions and then a new TM Forum-approved version early in 2004. This version – GB921 v4.0 – was also submitted under a liaison agreement to ITU-T, which acts as the premier worldwide body with a remit under the United Nations for setting international Recommendations in the telecommunications sphere. This eTOM version was adopted by ITU-T in *toto* and has been published in parallel as the ITU-T M.3050.x Recommendation sub-series with exact alignment on the content with TM Forum's GB921 v4.0.

Throughout this history, the eTOM work has benefited from wide involvement from the global telecommunications industry as well as academia, government agencies, etc. As it has evolved, the core has shown it can stand the test of time and it is now regarded as the pre-eminent vehicle for expressing and discussing business processes in and around the service provider domain. The work continues, now with an increasing emphasis that eTOM has established a clear and agreed view of the business process framework itself, on applications of eTOM and guidance to prospective and existing users on how to gain maximum benefit from the eTOM in their own businesses.

6 How does eTOM work?

6.1 Process decompositions

Process decomposition is a structured approach to analysis of a business through consideration of the enterprise's business processes and their internal structure. The basis of the concept is illustrated in Figure 6-1. Here we see a representative process, Process X, which might provide a specific area of capability within an enterprise – handling of customer orders, for example. When analysed, it is decided that the contained functionality, behaviour, etc., associated with that process can/should be sub-divided into three lower-level process elements. Note that typically such a "decomposition" is partly evident from the analysis of the detail captured within the process concerned and partly is the result of design decisions, where judgment is used to make the most appropriate partitioning for the situation under consideration.

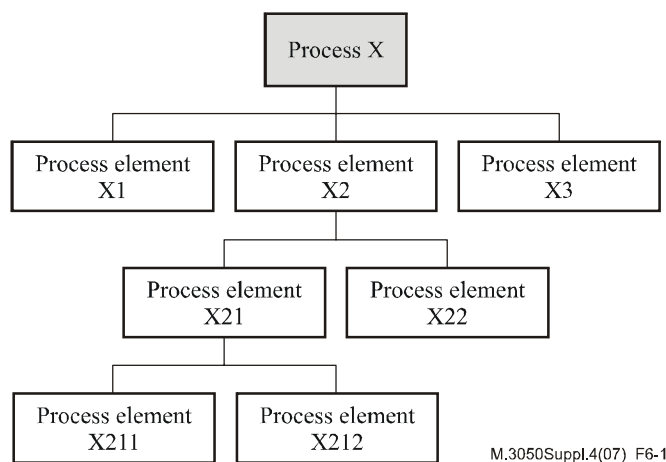


Figure 6-1 – Process decomposition

Each of the decomposed processes, X1, X2 and X3 can be further decomposed – X2 is shown as decomposed into X21 and X22 – and this can be continued – X21 is shown as decomposed into X211 and X212. Note that not all "branches" of the decomposition "tree" necessarily lead to "leaves" (i.e., final process elements) at the same level of decomposition. This will depend on the scope and content of the processes involved.