Enhanced Telecom Operations Map[®] (eTOM) **The Business Process Framework**

For The Information and Communications Services Industry

Application Note V: An Interim View of an Interpreter's Guide for eTOM and ITIL Practitioners

Release 6.0



GB921 V

Member Evaluation Version 6.1

November 2005

© TeleManagement Forum 2005

The TeleManagement Forum ("TM Forum") has made every effort to ensure that the contents of this document are accurate. However, no liability is accepted for any errors or omissions or for consequences of any use made of this document.

This document is a draft working document of TM Forum and is provided to its members solely for formal comments and evaluation. It is not a Forum Approved Document and is solely circulated for the purposes of assisting TM Forum in the preparation of a final document in furtherance of the aims and mission of TM Forum. Any use of this document by the recipient is at its own risk. Under no circumstances will TM Forum be liable for direct or indirect damages or any costs or losses resulting from the use of this document by the recipient.

Members of TM Forum are granted limited copyright waiver to distribute this document within their companies. They may not make paper or electronic copies for distribution outside their companies. The only purpose of the provision of this draft document to members is for making formal comments thereon to TM Forum.

This document may involve a claim of patent rights by one or more TM Forum members, pursuant to the agreement on Intellectual Property Rights between TM Forum and its members, and by non-members of TM Forum.

Direct inquiries to the TM Forum office: 240 Headquarters Plaza East Tower – 10th Floor Morristown, NJ 07960 USA Tel No. +1 973 944 5100 Fax No. +1 973 944 5110 TM Forum Web Page: www.tmforum.org

Table of Contents

NOTICE	2
TABLE OF CONTENTS	
TABLE OF FIGURES AND TABLES	5
EXECUTIVE SUMMARY	6
INTRODUCTION	8
PLAN OF DOCUMENT	9
BACKGROUND TO THIS WORK	
GOALS AND BUSINESS CONTEXT	11
THE GOALS OF TMF AND ITSMF	
<i>TMF</i>	
ItSMF	
HISTORY AND BUSINESS CONTEXT OF ETOM AND ITIL	
еТОМ	
_ ITIL	
APPROACHES AND DISTINCTIONS	
e10M ITII	
CEDVICE MANACEMENT IN ITH	
SERVICE MANAGEMENT IN TITL	10
SERVICE SUPPORT	
Service Desk	
Incident Management	
Problem Management	
Configuration Management	
Change Management	
Sepvice Delivedv	
Service Level Management	
Financial Management for IT Services	20
Capacity Management	
IT Service Continuity Management	
Availability Management	
APPLICATION MANAGEMENT	20
BUSINESS VIEW OF A COMBINED PROCESS APPROACH	
TERMINOLOGY	23
PROCESS ELEMENT MAPPING	24

COMPARISON OF ITIL PROCESSES WITH ETOM LEVEL 2 PROCESSES	29
PROCESS FLOWS	38
DIAGRAMMING CONVENTIONS	
HANDLING ITIL PROCESS FLOWS	40
CHANGE MANAGEMENT	41
Goal	
Change Management as a policy	41
Change Management applied to specific situations	
SCENARIO 1 CHANGE MANAGEMENT (SOFTWARE RELEASE)	42
INCIDENT MANAGEMENT	45
Context	
SCENARIO 1: INCIDENT MANAGEMENT (INFRASTRUCTURE FAILURE, INTERNAL ESCALATION)	
Pre conditions	
Post conditions	47
SCENARIO 2: INCIDENT MANAGEMENT SERVICE REQUEST (STANDARD PRE-APPROVED CHANGES)	49
Pre conditions	
Post conditions	
NEXT STEPS AND OTHER ISSUES	51
FURTHER WORK	51
STANDARDS FOR IT SERVICE MANAGEMENT (BS15000 AS8018 ISO20000 INTERNATIONAL STANDARD)	51
ITSMF	
Certification	
ITIL in the international context	
ANNEX 1: TERMINOLOGY	53
ETOM AND ITIL TERMINOLOGY	53
ANNEX 2: CORRELATION TABLE ETOM / ITIL INCIDENT MANAGEMENT	65
ANNEX 3: A COMBINED ETOM AND ITIL PROCESS APPROACH	68
CUSTOMER ORIENTED BUSINESS VIEW	
ICSP INTERNAL ORIENTED BUSINESS VIEW	
ADMINISTRATIVE APPENDIX	71
ACKNOWI EDGEMENTS	71
A BOULT THIS DOCUMENT	
DOCUMENT LIFE CYCLE	
TIME STAMP	
ΗΩΨ ΤΟ ΟΒΤΑΙΝ Α COPY	72
HOW TO COMMENT ON THE DOCUMENT	72
DOCUMENT HISTORY	
Version History	
Release History	
SUMMARY OF CHANGES IN THIS VERSION	73
References	74
Related or Source Documents	74

Table of Figures and Tables

Figure 1: ITIL Service Support Diagram (© OGC)	16
Figure 2: ITIL Service Delivery Diagram (© OGC)	19
Figure 3: Relationship between Service & Application Management	21
Figure 4: eTOM L2 Operations processes and ITIL processes	25
Figure 5: eTOM L2 Strategy, Infrastructure & Product processes and ITIL processes	26
Figure 6: eTOM L2 Enterprise Management processes and ITIL processes	27
Table 1: Comparison of ITIL processes with eTOM level 2 processes	37
Figure 7: Change Management – Software Release (part 1)	44
Figure 8: Change Management – Software Release (part 2)	45
Figure 9: Incident Management - Infrastructure failure (internal escalation)	48
Figure 10: Incident Management Service Request (standard pre-approved changes)	50
Figure A3/1: Value of an eTOM-ITIL combined process environment	69
Figure A3/2 – Split versus combined process environment	70

Executive Summary

This document stands as an Application Note attached to the "Enhanced Telecom Operations Map[®] (eTOM) The Business Process Framework for the Information and Communications Services Industry", GB921. It addresses how eTOM process elements and flows can be used to support the processes identified in the IT Infrastructure Library (ITIL[®]) developed outside of TM Forum. This document represents a status report of "work in progress" as it is intended to describe further areas of ITIL along the lines set out here, but at this stage only part of the ITIL space has been analyzed in this way. It is intended to extend the analysis and representation to the other ITIL processes for Service Support and Service Delivery. The work has been done with reference to ITIL v2.

This document is intended to provide users of either eTOM or ITIL with an overview of how the eTOM and ITIL processes can be related, and information on mapping from one view to the other. It builds upon the previous TMF document GB921L, extending analysis to Level 3 of eTOM, with detailed process flows for the ITIL Change Management and Incident Management processes.

The background to the work is explained and the roles of the industry associations TMF and itSMF are set out. Then the history and business context of the eTOM and ITIL are explained, together with a summary of the similarities and differences of the two approaches. A description of the ITIL approach to Service Management is included. Differences in terminology between ITIL and eTOM are highlighted.

Diagrams are included to illustrate the mappings between the two frameworks, addressing Change Management and Incident Management in this release. Detailed process flows for these are included, showing how eTOM process elements correspond to the ITIL process.

An approach to the combination of ITIL and eTOM in a business environment is also presented.

Finally, issues of standardization and certification are noted. Annexes contain detailed mappings and terminology comparisons.

This document is a replacement to GB921L, a publication of the TMF (Tele Management Forum) and a supplement to the IT Infrastructure Library, publications of the itSMF (IT Service Management Forum).

From the TM Forum and eTOM perspective, this document should be read in conjunction with the main GB921 document, and other Addenda (see GB921 for

[®] ITIL is a registered trade mark of OGC – the UK Office of Government Commerce

details). The previously-published GB921L (eTOM-ITIL Application Note) provided an earlier view of eTOM-ITIL interaction and is superseded by GB921V; GB921V incorporates relevant material from GB921L. GB921V represents the current direction of thinking on the eTOM-ITIL relationship.

Introduction

This document is intended to provide users of either eTOM or ITIL (or potential users for either or both of these) with an overview of how the eTOM and ITIL processes can be related, and information on mapping from one view to the other.

The document is an interim report from the team, showing work in progress, and is intended to show the analysis carried out and to invite comments on the approach taken. Thus, the approach taken to the analysis is general, and the form of the detailed artifacts for each process is still to be decided.

It should be stated clearly to begin with, that the analysis carried out supports the understanding that these two perspectives are compatible, and that a common, integrated view can be derived, so that either an eTOM-based or an ITIL-based solution can be understood in terms of the other perspective. This analysis is ongoing and so final results have not been developed in all areas as yet, but the general direction of the work done gives good grounds for optimism that no serious conflicts will arise in bringing together the two views.

It is important in looking at this, to recognize that the two areas of work are not attempting to address exactly the same scope. The eTOM provides a top-down hierarchical view of business processes across the whole enterprise and does not itself address how these processes are supported by automated or human action (this is however addressed in the wider NGOSS program of the TM Forum). The ITIL processes represent flows in a number of key operational areas, with a strong orientation towards how these processes will map onto IT support environments. Thus, the scope of ITIL is on a part of the enterprise business space, while eTOM looks more widely, but it focuses more directly on how these processes will operate in practice. Nevertheless, there is a large area of overlap of interest and this document aims to define this more precisely and indicate how this overlap will work.

Potential audiences for this document therefore include both eTOM and ITIL practitioners who want some grounding in how their area relates to the other, and also those actively seeking to manage the mapping between the two perspectives. This current document will not provide answers in every area and in full detail, but it provides an umbrella for further work that will progressively illuminate the issues involved.

It should also be noted that this work considers a generic mapping, and the implementation for specific service providers may differ in detail, depending on their particular use of eTOM and ITIL processes. Both eTOM and ITIL are intended as frameworks, and so will be further developed and specialized for individual applications. It therefore follows that the contents of this document would then also require further development and specialization in line with the detail that emerges.

Plan of document

The document is structured in the following way:

- Background to the work and previous work carried out by TMF and itSMF.
- The Goals of the TMF and itSMF, respectively the industry organizations responsible for the eTOM and promoting best practice in Service Management.
- History and business context of the eTOM and ITIL.
- > Similarities and differences in approach and scope.
- > The ITIL approach to Service Management
- The Business View of a combined approach, using eTOM and ITIL
- Discussion on terminology differences and similarities (further information in Annex 1).
- Presentation of mappings between the eTOM and ITIL frameworks (with further information in Annex 2 for Incident Management). Includes an explanation of how ITIL processes support eTOM processes.
- Flows for key scenarios in ITIL Change Management and Incident Management, showing how the eTOM process steps and ITIL process are related.
- Introduction to the business benefits of using a combined eTOM and ITIL approach (see Annex 3).
- Next steps, discussing future work, standardization and certification.
- Annex 1: Table of terminology comparisons.
- Annex 2: Mapping between eTOM for Incident Management.
- Annex 3: the business benefits of using a combined eTOM and ITIL process approach.

Background to this work

This document builds on previous work carried out by the TM Forum to provide a very high-level view of the relationship between eTOM and ITIL. This previous work was published as Addendum L of the eTOM documentation, as GB921L (eTOM-ITIL Application Note).

GB921L provided only a first level of mapping detail, and this document develops this further with mappings for each of the major ITIL processes (in this release, only Incident Management and Change Management have been addressed). GB921L is superseded by this document which incorporates relevant material from the earlier Application Note. Note that ITIL v2 has been used in preparing this document.

Goals and Business Context

This document builds on previous work carried out by the TM Forum to provide a very high-level view of the relationship between eTOM and ITIL. This was published as Addendum L of the eTOM documentation, as GB921L 4.0/4.5. This is available as part of the eTOM GB921 4.0/4.5 Solution Suite and is downloadable from www.tmforum.org

GB921L provided only a first level of mapping detail, and this document develops this further with mappings for each of the major ITIL processes (in this interim release, only Incident Management and Change Management have been addressed).

The goals of TMF and itSMF

TMF

TeleManagement Forum is an international consortium of communications service providers and their suppliers. Its mission is to help service providers and network operators automate their business processes in a cost- and time-effective way. Specifically, the work of the TM Forum includes:

- Establishing operational guidance on the shape of business processes.
- Agreeing on information that needs to flow from one process activity to another.
- Identifying a realistic systems environment to support the interconnection of operational support systems.
- Enabling the development of a market and real products for integrating and automating telecom operations processes.

The members of TM Forum include service providers, network operators and suppliers of equipment and software to the communications industry. With that combination of buyers and suppliers of operational support systems, TM Forum is able to achieve results in a pragmatic way that leads to product offerings (from member companies) as well as paper specifications.

TeleManagement Forum supports several kinds of projects, including Process Automation and Technology Integration projects, as well as Catalyst Projects that support both Process Automation and Technology Integration projects through realproduct integration. The TeleManagement Forum has existed since the late 80s as an industry focus for OSS/BSS issues, with the aim of encouraging and facilitating easier interoperability between Service Providers and other enterprises (other SPs, Customers, Suppliers, Partners, etc), and also of easing integration of OSS/BSS solutions in the ICT arena. It is a non-profit global consortium, currently of some 400 companies with most of the major players and many others involved in and applying the work. TMF supports TeleManagement World, a twice-yearly industry expo and conference event focused specifically on OSS/BSS, as well as market-oriented analysis that feeds into a technical work program, a Catalyst Program for Members to collaborate on proof-of-concept, and increasingly early product, demonstrations, and a comprehensive website offering a range of resources for the industry. The technical work program is member led and resourced, delivering specifications and designs across a range of high-priority areas, and notably includes the Enhanced Telecom Operations Map (eTOM) as the primary industry Business Process Framework.

ItSMF

The IT Service Management Forum is the only internationally recognized and independent organization dedicated to IT Service Management. It is a not-for-profit organization, wholly owned, and principally operated, by its membership.

The itSMF is a major influence on, and contributor to, industry "best practice" (represented by the IT Infrastructure Library - ITIL) and Standards worldwide (BS15000, AS8018 and ISO20000 – due in 2005), working in partnership with a wide range of governmental and standards bodies.

Formed in the UK in 1991, there are now national chapters in an ever-increasing number of countries. The aims are:

- To develop and promote industry best practice in service management
- To engender professionalism within service management personnel
- To provide a vehicle for helping members improve service performance
- To provide members with a relevant forum in which to exchange information and share experiences with their peers on both sides of the industry

Approximately 80% of the membership represents organizations striving to implement and sustain high quality IT Service Management solutions, with the remainder being organizations providing products and services to assist in those endeavours. Organisations range from large multi-nationals through small and medium local enterprises to individual consultants and cover both the public and private sectors.

While, broadly speaking, all chapters offer very similar services, the range and sophistication does vary according to the size and maturity of the chapter. To find out more about itSMF and its services go to http://www.itsmf.com/

History and Business Context of eTOM and ITIL

eTOM

The eTOM Framework was originally developed in the early 90s based on input from a range of Service Providers (SPs) to provide the original Business Process Model that developed into the Telecom Operations Map (TOM). This concentrated on the real-time operations processes, under the general headings of Fulfillment, Assurance and Billing. In the late 90s, this was expanded to provide a total enterprise model and the original "FAB" processes can still be observed as part of this Enhanced Telecom Operation Map, but the overall scope is now much wider and embraces areas such as Strategy Infrastructure and Product Lifecycles and the Enterprise Management processes that can be seen in any company.

The eTOM Framework has evolved through several TMF and then public releases to its current public, TMF-Approved Release 4.0 (2004). This release has also been accepted by ITU-t in toto and is now published as part of the ITU-T TMN set of Recommendations as M.3050 (2004).

Widely used in the industry as the most comprehensive view of SP processes, eTOM is applied by SPs themselves as a reference and a basis for internal and external discussion around business needs and interoperability, as well as by Suppliers and others as a means of understanding and discussing SP behavior and requirements. It includes a hierarchy of process definitions, offering a structure and Model to understand and develop areas of process, and a repository of process elements at various levels of detail that can be combined and applied in specific applications. It also provides examples of process flows showing how the eTOM Framework can be used, user guides, and information on relationships with other industry work (such as ITIL and the ITU-T TMN).

ITIL

The IT Infrastructure Library or ITIL is a public domain 'standard' for IT/ICT production operations and is the most widely accepted approach to IT service management in the world. It provides a comprehensive and consistent set of best practices for IT service management, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems.

Developed in the UK during the '80s and now being evolved by a global community, it is being adopted worldwide. ITIL took root during the challenge of client server, distributed, departmental computing and increasing IT operational complexity. It is now represented and revised by the itSMF, which has branches in about 30 countries. It has been adopted in North and South America, UK and Europe as well as Africa, India, South East Asia, including Japan, Australia and New Zealand. However the heartland for adoption remains Europe. While it remains a public domain standard the copyright is owned the UK Office of Government Commerce.

ITIL comprises a fairly simple set of logical processes and a standardized vocabulary. It replaces all other operational methods that may have been introduced into an IT service delivery environment, giving them a common definition of services. These are available on CD or books.

The core set of processes is contained in a 6 book set: Service Support, Service Delivery, ICT, Application, Planning to Implement and Security Management (ISO17799 aligned). Also, separate publications deal with Business Management and Software Asset Management aspects. There are about another 25 associated documents in the complete set. The two most popular publications are Service Delivery and Service Support.

These methods are size, technology and industry independent and ITIL has been applied to small IT shops, huge multi-national companies' IT operations and government departments. Interestingly it has also been adopted in a few organizations, such as UK area health organizations and London Underground transport operations purely for generic service management to the public.

The current release of ITIL is v2 and this has been used in this document.

Approaches and distinctions

eTOM

- > Business context is a total enterprise model for telcos.
- International standard through ITU.
- Constitutes the Business View section of NGOSS, TMF's initiative on OSS / BSS solutions.
- A common language for business processes.
- A hierarchy of process definitions.
- A repository of process elements at various levels of detail that can be combined and applied in specific applications.
- Provides examples of process flows.
- Flow diagrams are used in eTOM to illustrate end to end processes e.g. Fulfillment.
- Technical content now mature, with an increasing emphasis on guidelines for its application and usage.

ITIL

- Business context is IT / ICT Service Management.
- Included in various national standards, and slated to be adopted by ISO in 2005 / 06.
- A comprehensive and consistent set of best practices.

- A set of methods for delivering controlled and optimizable services.
- Common language e.g. Incident is used for any event which causes an interruption or reduction of service.
- Aim is to provide high quality services with a particular focus on Customer relationships.
- Is built on agreements where the IT organization should provide whatever is mutually agreed with Customers.
- Service Delivery processes are partially concerned with setting up agreements and monitoring the targets within these agreements. On the operational level, the Service Support processes can be viewed as delivering service as laid down in these agreements.
- \succ Flow charts are used in ITIL¹.
- Inclusion of closed feedback quality loops for continuous improvement.
- It supports and drives 'quality' or repeatability
- The underlying philosophy is to know what you are doing, what you are doing it to, take control and optimize the service. It is for this reason that it can be applied to many circumstances not just IT operations.
- ITIL applies and maps specifically to eTOM Operations Assurance and touches Fulfillment and Billing².

¹ While flowcharts are used to illustrate some of the processes in the ITIL documents, ITIL does recognise the need to develop processes (Annex C to Service Support for example)

² It also maps to many of the SIP processes. Availability and Capacity Management are mainly concerned with ILM and PLM

Service Management in ITIL

The two "core" documents of the ITIL set are the two ITIL Service Management components; Service Support and Service Delivery. The decomposition of these components into processes and functions is covered below.

Service Support

The content is adapted from the Service Support and Service Delivery Guidebooks (© OGC).



Figure 1: ITIL Service Support Diagram (© OGC)

Service Support decomposes into the following functions and processes:

Service Desk

The Service Desk is the only function within ITIL Service Management and provides a single point of contact between the IT Service Customer/User and all the other processes within the ITIL Service Management.

Incident Management

The Incident Management process handles service requests (new service requests, change requests etc) as well as incidents. An incident is any event that affects the required Service Levels as defined by a relevant SLA. The aim of Incident Management is to return IT Service delivery to the required Service Levels as quickly as possible while minimising any negative impact upon business operations.

Problem Management

The Problem Management process is comprised of two aspects; proactive Problem Management and reactive Problem Management. Proactive Problem Management involves the detecting and resolving of Problems and Known Errors before they lead to Incidents. Reactive Problem Management responds to Major Incidents and Problems as they occur, again providing problem resolution. There are two stages to the Problem Management process; the first, Problem Control involves investigating and establishing a root cause of a problem and providing a resolution; the second, Error Control, is the investigation and elimination of Known Errors so that they do not reoccur. Once the root cause of a problem has been identified and the problem resolved then it becomes a known Error.

Configuration Management

The Configuration Management process is the underpinning discipline to all the other Service Management Processes. The aim of the process is to document all the Configuration Items (CIs) within an organisation and the relationship between them all in the Configuration Management Database (CMDB). The Configuration Management process is also responsible for keeping the CMDB up to date. The CMDB is used by the other processes to hold reports, plans, records etc since these also can be related to CIs.

Change Management

The Change Management process is responsible for the implementation of changes to both IT Services and Infrastructure. All changes should show a benefit to the business; be it the resolution of a problem, service improvement or cost reduction. The Change Management process provides a structured method for the approval and management of all changes. This approach allows the resources required to implement a change, the business impact of a change (both benefits and incidents that may arise because of the change).

Release Management

The Release Management process is an output of the Change Management process since Release Management is the implementation of any change. The Release Management process is concerned with all types of IT Service or system change and takes a wider view of a change so that all aspects of a change are considered. The Release Management process is also responsible for the Definitive Software Library (DSL) and Definitive Hardware Store (DHS) within the CMDB.

Service Delivery

The content is adapted from the Service Support and Service Delivery Guidebooks (© OGC).



Figure 2: ITIL Service Delivery Diagram (© OGC)

Service Delivery decomposes into the following main processes:

Service Level Management

The aim of the Service Level Management process is to ensure that IT Service quality is maintained and improved. The Service Level Management maintains the relationship between the Customer and the IT Service Provider (who can be either internal or external to the Customer's organisation) through Service Level Agreements (SLAs), Operational Level Agreements (OLAs) and Underpinning Contracts (UCs).

Financial Management for IT Services

The Financial Management for IT Services process is concerned with the budgeting, accounting and charging of IT Services. It considers both internal IT Service provision and external third party providers.

Capacity Management

The aim of the Capacity Management process is ensure that the IT Infrastructure can meet current and future IT Service requirements, and consequently business requirements, can be met cost effectively. The Capacity Management processes also looks at improving IT Service Delivery through the introduction of new technology and continuous monitoring and improvement of the IT Service.

IT Service Continuity Management

The IT Service Continuity Management process is underpins the organisations Business Continuity requirements and is responsible for ensuring that the required IT Services (including infrastructure, telecommunications, applications and support) can be restored in the required time to ensure business continuity.

Availability Management

The aim of the Availability Management process is to ensure that the availability of the IT Services meet the SLA, and consequently the business requirements through the continuous monitoring of and improvement to the IT Services. The Availability Management process is also responsible for the implementation of Security Policy.

Application Management

Application Management overlaps Service Management as shown in the figure below and divides into two areas:

- 1. Application development those activities needed to plan, design and build the application.
- 2. Service Management which sub-divides into:

- Service Delivery
- Service Support

Application Management is split into six processes which are distributed between Application Development and Service Management as shown below:



Figure 3: Relationship between Service & Application Management

An application is the software that is the embodiment of the service being delivered - a service is however more than just the functionality offered by the application and hence, service management is only partially included within Application Management.

The Application Management document details the 6 areas of Application Management shown in the Figure, the functionality that they will typically embody, the interactions they will have with other Service Management processes and the way in which an organisation should approach implementing these processes.

Business View of a combined process approach

It is recognized that companies with involvement in either the eTOM or ITIL approaches may speculate which framework would be suitable in which circumstances and the respective business benefits. Similarly, companies with exposure to both frameworks would wish to know how to integrate the approaches. A combination of the two approaches can deliver equal or improved business value.

In Annex 3, the business value of constituting a combined business process environment is discussed. It presents an initial view of the business benefits of using a combined eTOM and ITIL process approach. A streamlined and integrated business process environment can result from the combination of the eTOM and ITIL industry process standards.

The integrated approach, realized by mapping ITIL on to an eTOM enabled process environment, can deliver a number of business related advantages. These advantages can be grouped into two main categories:

- The Customer oriented business view
- > The ICSP internal oriented business view

These are further described in Annex 3.

Terminology

In order to understanding the relationship between eTOM and ITIL it is necessary to understand the different terms used by each framework. In many cases there are terms of the same name but with different meanings; for example 'Problem'. There are several ITIL terms that introduce concepts are not within eTOM; for example the terms relating to the Incident and Change Management processes. Conversely there are eTOM terms that can be used to extend ITIL; for example those relating to Supply Chain Management. Annex 1 consists of a table listing ITIL terms and their eTOM equivalents (still under development).

Process element mapping

As a high-level view, it is useful to be able to position the ITIL processes against the eTOM framework. The following diagrams position the 11 ITIL processes against the eTOM Level 1 process groupings of Operations; Strategy, Infrastructure & Product; and Enterprise Management.

In Annex 2, further information on the mapping of eTOM Level 2 and 3 processes to the ITIL Incident Management process is shown with degrees of correlation. The team is currently considering the respective benefits and usefulness of these mappings and representations.



Figure 4: eTOM L2 Operations processes and ITIL processes



Figure 5: eTOM L2 Strategy, Infrastructure & Product processes and ITIL processes



Figure 6: eTOM L2 Enterprise Management processes and ITIL processes

Legend



Comparison of ITIL processes with eTOM level 2 processes

The following table relates the eTOM level 2 processes and the ITIL processes. It also details how ITIL supports customer and internal IT services.

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of	How ITIL supports the management of internal IT
		customer services	services
Service Desk	CRM Support & Readiness	The Service Desk is the only function within	 Monitor usage of the Support Services, provide
	Customer Interface Management	ITIL and acts as the first point of contact for the Customer/Users and well as their interface to all the other ITIL processes	 appropriate metrics (call logs, incident records, RfCs raised, Service Requests etc) Act as the interface to Suppliers/Partners handing off
	Selling	Process Users Service Requests and Requests for Change (RfCs)	Incident Reports, Service Requests, RfCs etc
	Order Handling	Update Customer Accounts Act on first point of context for Customer and	
	Retention & Loyalty	Act as first point of contact for Customers and Users gather data on Customer/User perception of Service Quality	
	S/P Interface Management	Act as the interface to Suppliers/Partners banding off Incident Penorts, Senvice	
	Supply Chain Development & Change Management	Requests, Rfcs etc	
Incident Management	Customer Interface Management	 Incident Management is the key process used by the Service Desk function in fulfilling its 	
	Selling	functional requirements	
	Order Handling	 Incident Management supports the capture, processing and monitoring of Service Requests (Requests for Change (RfCs) 	
	Problem Handling	enquires etc) as well as Incidents.	
	Customer QoS/SLA Management	 ⇒ Classification and Initial Support ⇒ Classification and Parking (Heatware) 	
	Retention & Loyalty	⇒ Classification of Problem (Hardware, Software, Network etc)	
	Service Configuration & Activation	$\begin{array}{l} \Rightarrow \text{Investigation and diagnosis} \\ \Rightarrow \text{Resolution and Recovery} \end{array}$	
	Service Problem Management	Escalation, either internally or externally and either functional or hierarchical, of Incident to	
	Resource Provisioning	Problem Management or other 2 nd , 3 rd or n th line support organization	
	Resource Trouble Management	The goal of Incident Management is to return the User to return	

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT
	Resource Performance Management S/P Support & Readiness S/P Requisition Management S/P Problem Reporting & Management S/P Interface Management Supply Chain Development & Change Management	the User to normal Service as quickly as possible.	
Problem Management	SM&O Support & Readiness Service Problem Management RM&O Support & Readiness Resource Trouble Management S/P Problem Reporting and Management S/P Performance Management Supply Chain Development & Change Management	 Problem Management supports the analysis of resource data to look at performance trends identifying potential incidents/Problems before they affect Users. Problem Management Process Steps: Problem Management Process Steps: Problem Identification and recording Problem Classification Problem Investigation and diagnosis RFC and Problem resolution and closure Escalation, either internally or externally and either functional or hierarchical, of Problem to other 2nd, 3rd or nth line support organisation 	
Configuration Management	CRM Readiness & Support Customer QoS/SLA Management SM&O Support & Readiness Service Configuration and Activation Service Problem Management Service Quality Management	 Maintain the Configuration Management Database (CMDB) so all assets are known and their relationship between each other Configuration Management can be viewed as the key ITIL process responsible for maintaining the CMDB which is used by all the other ITIL processes. 	The Configuration Management Database can be used to ensure that legal requirements are adhered to; for example in the UK the Freedom to Information Act and Data Protection Act

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
	RM&O Support & Readiness		
	Resource Provisioning		
	Resource Trouble Management		
	Resource Performance Management		
	Resource Data Collection & Processing		
	S/P Requisition Management		
	Product & Offer Capability Delivery		
	Product & Offer Development & Retirement		
	Service Strategy & Planning		
	Service Capability Delivery		
	Service Development & Retirement		
	Resource Strategy & Planning		
	Resource Capability Delivery		
	Resource Development & Retirement		
	Supply Chain Strategy & Management		
	Supply Chain Development & Change Management		
	Group Enterprise Management		
	Asset Management		

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of	How ITIL supports the management of internal IT
		customer services	services
	Regulatory Management		
Change Management	SM&O Support & Readiness RM&O Support and Readiness Resource Provisioning Resource Trouble Management Product & Offer Development & Retirement Service Development & Retirement Resource Development & Retirement Supply Chain Development &	 Manage the changes that occur and inform the Configuration Manager of any changes made Acceptance of the RfC, Authorisation and Planning of the Change required for the Resolution of Services A RfC may be raised as the result of a User request for a new or change in service/resource or the resolution of a fault in response to an Incident/Problem 	 Filter, approve and manage changes to the current IT services/infrastructure Manage any changes introduced (new or improved Services); this can be with either an internal IT Department or External IT Outsourcer/Supplier
	Change Management		
Release Management	SM&O Support & Readiness Service Configuration and Activation Service Problem Management RM&O Support & Readiness Product & Offer Capability Delivery Product & Offer Development & Retirement Service Capability & Delivery Service Development & Retirement Resource Capability Delivery Resource Development & Retirement	 Manage the implementation of any Change Implementation of any Change required for the Resolution of Services Policy, Planning and Development of changes to IT Services/ infrastructure 	 Policy, Planning and Development of changes to IT Services/ infrastructure Define policy, purchase, test and accept any COTS or bespoke IT hardware or software

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT
Service Level Management	atrom Level 2 ProcessSupply Chain Strategy & PlanningSupply Chain Development & Change ManagementCRM Readiness & SupportSellingCustomer QoS/SLA ManagementRetention & LoyaltySM&O Support & ReadinessService Quality ManagementRM&O Support & ReadinessService Data Collection & ProcessingS/PRM Support & ReadinessS/P Performance ManagementS/P Settlements & Billing ManagementProduct & Offer Portfolio PlanningProduct & Offer Development & RetirementService Strategy & PlanningService Capability Delivery	 How ITIL supports the management of customer services Monitor and maintain required service levels Develop and maintain the Service Catalogue so the Customer/Users are aware of what IT Services are available Manage relationship between IT Service Management and the Customer Inform the Customer of possible Service improvements/cost savings Monitor and analysis Service performance SLA or OLA requirements are met Monitor, review and report SLA performance Ensure that the SLA meets Customer and User requirements (Re)Negotiate with the Customer developing the Service Level Requirements (SLRs) that will form the basis of the SLA, OLA or Under Pinning Contract (this can be with either an internal IT Department or External IT Outsourcer) Negotiate with the Customer developing the Service Level Requirements (SLRs) that will form the basis of the SLA, OLA or Under Pinning Contract and ensure that they meet business requirements 	 How ITIL supports the management of internal IT services Monitor and maintain required service levels whether the Service is provided internally to an OLA or externally via a SLA. Manage OLAs or Under Pinning Contracts Monitor, review and report SLA. OLA and Under Pinning Contract performance Negotiate with the Customer developing the Service Level Requirements (SLRs) that will form the basis of the SLA, OLA or Under Pinning Contract and ensure that they meet business requirements
	Service Development & Retirement		

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
	Resource Strategy & Planning		
	Resource Capability Delivery		
	Resource Development & Retirement		
	Supply Chain Strategy & Planning		
	Supply Chain Capability Delivery		
	Supply Chain Development & Change Management		
	Audit Management		
	Enterprise Performance Management		
	Technology Scanning		
Capacity Management	SM&O Support & Readiness Service Quality Management	 Model, monitor and analysis Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements 	 Model, monitor and analysis Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements
	RM&O Support & Readiness	Technology watch, introduction of new technology to offer new, different and improved	 Ensure that the Service Desk meets the requirements of the Customer as defined in the SLA or OLA (resourcing both people and equipment).
	Resource Provisioning	Services (Service Quality, Availability, Capacity, and Continuity)	 Technology watch, introduction of new technology to offer new, different and improved Services (Service)
	Resource Performance Management		Quality, Availability, Capacity, and Continuity)
	Resource Data Collection & Processing		
	Product & Offer Portfolio Planning		
	Product & Offer Capability Delivery		
	Product & Offer Development & Retirement		
	Service Strategy & Planning		

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
	Service Capability Delivery		
	Service Development & Retirement		
	Resource Strategy & Planning		
	Resource Capability Delivery		
	Resource Development & Retirement		
	Supply Chain Development & Change Managment		
	Strategic Business Planning		
	Enterprise Performance Management		
Availability Management	SM&O Support & Readiness	Model, monitor and analysis Service/Resource	Model, monitor and analysis Service/Resource
	Service Quality Management	sufficient to meet Business needs and SLA or	Business needs and SLA or OLA requirements
	RM&O Support & Readiness	OLA requirements	Responsible for the implementation of the Security Policy
	Resource Performance Management		
	Resource Data Collection & Processing		
	Product & Offer Portfolio Planning		
	Product & Offer Capability Delivery		
	Product & Offer Development & Retirement		
	Service Strategy & Planning		
	Service Capability Delivery		
	Service Development &		

ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
	Retirement		
	Resource Strategy & Planning		
	Resource Capability Delivery		
	Resource Development & Retirement		
	Supply Chain Development & Change Management		
	Security Management		
	Enterprise Performance Management		
	Technology Scanning		
IT Service Continuity	Product & Offer Capability Delivery		Compliance with any legal requirement with regards IT
Management	Product & Offer Development & Retirement		 Service Continuity The IT Service Continuity Plan forms part of the Business Continuity Plan
	Service Strategy & Planning		
	Service Development & Retirement		
	Resource Development & Retirement		
	Supply Chain Development & Change Management		
	Business Continuity Management		
	Regulatory Management		
Financial Management for IT Services	Billing and Collections Management	Collect monies for the use of the IT Service as per the Charging model/SLA or OLA	Budget, Account (develop Cost Model) and charge
	SM&O Support & Readiness		
	Product & Offer Capability Delivery		
ITIL Function/Process	eTOM Level 2 Process	How ITIL supports the management of	How ITIL supports the management of internal IT
-----------------------	--	-------------------------------------	---
		customer services	services
	Service Strategy & Planning		
	Service Capability Delivery		
	Service Development & Retirement		
	Resource Strategy & Planning		
	Resource Capability Delivery		
	Resource Development & Retirement		
	Supply Chain Strategy & Planning		
	Supply Chain Development & Change Management		
	Financial Management		
	Asset Management		

Table 1: Comparison of ITIL processes with eTOM level 2 processes

Process Flows

This section contains a detailed representation of how eTOM process elements can support key scenarios for applying ITIL. For each of the ITIL process areas considered (see below), the overall context is described, followed by the descriptions of the scenarios addressed

Two ITIL areas are addressed in this release of the document:

- Incident Management, which is comparable to eTOM Assurance. For Incident Management, two scenarios are considered here.
- Change Management, which can arise in a variety of contexts within the enterprise, depending on the choices made by the enterprise on the applicable scope of ITIL for their business. For Change Management, one scenario is considered here.

Diagramming conventions



The diagrams show eTOM process elements overlaid on the ITIL Incident Management process stages e.g. in Incident Management, Incident Detection and Recording, Classification & Initial Support, etc. These ITIL process stages are depicted in "swimlanes" with process flow between eTOM processes indicated by arrows. The process flows may be mandatory, optional or acting continuously. Where an eTOM process is considered to span more than one ITIL process the eTOM process is stretched in the diagram to cover the swimlanes. For example, in Incident Management, the eTOM process "Survey & Analyze Resource Trouble" is considered to support the ITIL process steps "Incident Detection & Recording", "Classification and Initial Support" and "Investigation & Diagnosis".

Note that it may be easy to misinterpret what is being portrayed in these diagrams. In the example above, it should not be understood that <u>all</u> the process detail in, say, the eTOM Process "Survey & Analyze Resource Trouble" is relevant or applicable within the identified ITIL process steps. Rather, the correct interpretation is that some of the defined eTOM

process detail can be used to provide the necessary support for the ITIL requirements. To inspect the necessary eTOM process detail, users should consult other parts of the eTOM material, outside of this document - in particular, GB921D which contains process descriptions and other eTOM process detail.

Consideration is currently being given to including some additional outline process detail in a future release of this document, for both the eTOM and ITIL process areas, to assist users in interpreting which aspects of each are relevant when considering their relationship, as documented below.

Handling ITIL process flows

In defining how ITIL flows can be supported with eTOM process elements, it is necessary to recognize that ITIL provides a view of each of the areas it addresses (such as Change Management) with the intention of defining how businesses should implement these areas in order to achieve good business results. The details of how this affects individual areas of the business, and the impact on specific process elements within an enterprise-wide process model (such as eTOM represents) is not explicitly defined, but is left for each business to effect in the way it sees as appropriate.

Since eTOM directly addresses this aspect of how individual process areas are defined and used, this means that the requirements, or intentions, of the ITIL flows need to be applied in the eTOM model if we are to realize ITIL using eTOM. In the course of the analysis which has been made on this, it has become clear that this needs to happen at more than one level.

Initially, the ITIL approach for each process flow can be interpreted as setting a corporate approach or policy for the business. In eTOM terms, this would typically be captured within the Enterprise Management part of the eTOM Framework, and can be considered as specializing or customizing the generic eTOM Framework to derive an eTOM model that applies or implements ITIL. This policy is then carried through to the rest of the business and would give rise to a set of individual process specializations – which can typically be represented as specific process flows, showing how this policy is used for different circumstances in different parts of the enterprise.

For example, taking ITIL Change Management, the ITIL guidelines and flow set a policy for handling change within the enterprise that would be absorbed into Enterprise Effectiveness Management within Enterprise Management. This policy would then feed through to the rest of the business and could be examined by considering individual scenarios for change, each addressing a defined area and type of change, which might involve a wide range of process elements depending on the actual change concerned. In each case, the principles (ie the policy) of ITIL Change Management would apply but would be implemented using the appropriate process elements for the area of the business that was impacted. As an example, a

change affecting product strategy and leading to new or modified products being developed and deployed would involve process elements largely in the upper part of the eTOM Framework, across Marketing & Offer Management and Customer Relationship Management (with support as needed from underlying process elements elsewhere in SIP and OPS). As another example, a change for a minor bug fix in an IT equipment resource would involve process elements largely in the Resource layer of the eTOM Framework, across Resource Development & Management and Resource Management & Operations (again with support from other process elements as appropriate).

It can be seen that further examples could be identified, each based on an individual change scenario and each involving some specific eTOM process elements that would differ from case to case, but all following the approach for Change Management defined by ITIL.

Change Management

This section contains a detailed representation of how eTOM process elements support a scenario in ITIL Change Management. First the goal of ITIL Change Management is described, followed by a discussion of Change Management from the points of view of policy and a specific implementation. Then a description of the scenario follows with diagrams.

Goal

The goal of Change Management is to ensure that standardized methods and procedures are used for efficient and prompt handling of all Changes, in order to minimize the impact of Change-related Incidents upon service quality, and consequently to improve the day-to-day operations of the organization.

Change Management as a policy

As noted previously, each of the ITIL disciplines or flows can be considered initially to set a policy for the business which is then applied or implemented throughout the enterprise.

For Change Management, the ITIL guidelines and flow set a policy for handling change within the enterprise that would be captured within Enterprise Effectiveness Management within Enterprise Management. The main focus here would be the Enterprise Quality Management (1.E.3.2) Level 2, supported by the Program & Project Management (1.E.3.3) Level 2.

This policy or approach is then applied in different areas of the eTOM Framework depending on the nature of the specific change involved. It is therefore necessary to address this as a series of scenarios or Use Cases, each of which provides insight into how eTOM can effect ITIL Change Management for a particular area of change.

For the case of ITIL Change Management, one scenario is chosen for development, although of course many other examples could be considered. It is hoped that sufficient insight can be gained from this example, that a general message on how eTOM can support ITIL can then be drawn.

Change Management applied to specific situations

For the purposes of this analysis, particular eTOM processes have been related to the use of standard Change Management procedures within the Change life-cycle. The swimlanes in the diagrams below are intended to represent these ITIL Change Management procedures.

Scenario 1 Change Management (software release)

Scenario 1 concerns (low-level) resource change, specifically concerning IT-oriented resources, say for a new software release:

Scenario

A Request for Change (RFC) is received by the Change Manager to implement a software release.

Pre-conditions

RFC is initiated requesting a software release with specific requirements

Post-conditions

Implemented Change or Restored Infrastructure through back-out plan

Process Steps for Change Management, based on ITIL

- RFC received
- Change Manager filters the RFC
- Change Manager determines initial priority based on impact and urgency of required change
- The change is categorized to indicate the type of change (for reporting/tracking)
- The change is categorized to indicate HOW to deal with change (minor, significant, major)
- The change is approved by a change authority
- The change is scheduled (there is some interaction with Release Management here)
- The change is 'built'
- Testing plans are devised
- A back-out plan is produced to enable the implementation team to revert to known state
- The change is implemented
- If there are problems the change is backed out
- The change is reviewed to ensure that the desired effect has been achieved
- The Change Manager ensures that all documentation has been brought up to date

Diagrams



Figure 7: Change Management – Software Release (part 1)



Figure 8: Change Management – Software Release (part 2)

Incident Management

Goal

The goal of Incident Management is to restore normal service operation as quickly as possible with minimum disruption to the business, thus ensuring that the best achievable levels of availability and service are maintained.

Context

An Incident is any event which is not part of the standard operation of a service and which causes, or may cause, an interruption to, or a reduction in the quality of that service. Examples of Incidents are application unavailable, hardware outage and (service) requests for information or assistance.

Incident Management is concerned with restoring normal service operation as quickly as possible with minimum disruption to the business, thus ensuring that the best achievable levels of availability and service are maintained.

The Service Desk is responsible for the monitoring of the resolution process of all registered Incidents – in effect the Service Desk is the owner of all Incidents. To react efficiently and effectively therefore demands a formal method of working that can be supported by software tools.

The scenarios described below address the Incident Management process in the case of an infrastructure failure and a service request.

For a failure three sub-cases can be distinguished:

- 1) 1st line support,
- 2) Escalation internally, and
- 3) Third Party.

Often, departments and (specialist) support groups other than the Service Desk are referred to as second- or third-line support groups, having more specialist skills, time or other resources to solve incidents. The Service Desk is first-line support. The scenario described here is for the 2nd sub-case, where an Incident cannot be resolved by the Service Desk and is referred to another support group within the organization. This scenario has aspects similar to eTOM Assurance.

Scenario 1: Incident Management (infrastructure failure, internal escalation)

An Incident is received by the Service Desk and is transferred to a second-line support group, possibly because more detailed attention is required or to bring in particular expertise, or because the incident cannot be resolved quickly enough – this is termed 'functional escalation'.

Pre conditions

- Details of Incident.
- Configuration details.

Post conditions

Updated Incident Record



Figure 9: Incident Management - Infrastructure failure (internal escalation)

Scenario 2: Incident Management Service Request (standard pre-approved changes)

An Incident is received by the Service Desk. It is classified as a Service Request for a standard pre-approved change. This means that the Service Request does not require authorisation or ITIL Change Management and is well-understood, requiring the implementation of a specified series of steps and procedures. This scenario has aspects similar to eTOM Fulfilment.

Pre conditions

- > Details of Incident.
- Configuration details.

Post conditions

Updated Incident Record



Figure 10: Incident Management Service Request (standard pre-approved changes)

Next steps and other issues

Further work

The eTOM Team has established a method and diagramming technique for the analysis and representation of ITIL processes, with an application of these to Incident Management and Change Management. It is proposed to extend this analysis and representation to the other ITIL processes for Service Support and Service Delivery.

Standards for IT Service Management (BS15000, AS8018, ISO20000 international standard)

The best-practice processes promoted in ITIL both support and are supported by the British Standards Institution's Standard for IT Service Management (BS15000). The Australian Standard, AS8018, is based upon BS15000 and has a different foreword. Notably it is described as a Standard for ICT Service Management, as distinct from an IT Service management Standard.

The BSI Management Overview (PD0005), BS15000-1 (Specification for service management), BS15000-2 (Code of practice for service management) and the ITIL series form part of the same logical structure. The BSI Management Overview serves as a management introduction to the detailed guidance in ITIL, and correspondingly, the individual ITIL books offer expanded information and guidance on the subjects addressed within BS15000.

The scope of Service Management in BS15000 is categorised into Service Delivery Processes, Release Process, Resolution Processes, Relationship Processes and Control Processes. Incident Management is within Resolution Processes and, generally, the ITIL processes are a subset of those in BS15000.

ITIL is slated to be adopted by ISO in 2005 as ISO20000.

ItSMF

Contact between the TMF and itSMF has taken place on an earlier document relating eTOM and ITIL (TMF GB921L); further contact is ongoing between the organisations in order to develop the description of the relationship and linkages to the mutual benefit of both communities.

Certification

A formal certification scheme for BS15000 is now in place; the scheme is owned by the itSMF and operated by independent auditors. A similar arrangement is in place in Australia. Six companies world-wide were certified to some extent by September 2004.

ITIL in the international context

Industry analysts such as Gartner speculate that ITIL will be considered or adopted by most companies world-wide by 2006.

Annex 1: Terminology

eTOM and ITIL terminology

When mapping between eTOM and ITIL it is important to understand the meanings of the different terms that are used in each framework. This table sets out some of the ITIL terms and their definitions and aims to provide equivalent eTOM terms (taken from TM Forum document TMF044 version 2). Many of the ITIL terms have no eTOM equivalence and are included for completeness.

ITIL Term	Definition	еТОМ	Definition	Comment
		Equivalent		
		Term		
Alert	Warning that an incident has occurred.	Alarm	An alerting indication of a condition that may	
			have immediate or potential negative impact on	
			the state of service resources, e.g. network	
			element, application, system, etc.	
Asset	Component of a business process.	Resource	Resources represent physical and non-physical	
	Assets can include people,		components used to construct Services. They	
	accommodation, computer systems,		are drawn from the Application, Computing and	
	networks, paper records, fax		Network domains, and include, for example,	
	machines, etc.		Network Elements, software, IT systems, and	
			technology components.	

ITIL Term	Definition	еТОМ	Definition	Comment
		Equivalent		
Availability	Ability of a component or service to perform its required function at a stated instant or over a stated period of time. It is usually expressed as the availability ratio, i.e., the proportion of time that the service is actually available for use by the customers within the agreed service hours.	Availability performance	The ability of an item to be in the state to perform a required function at a given instant of time or at any instant of time within a given time interval, assuming that the external resources, if required, are provided. Note that this ability depends on the combined aspects of the reliability performance, the maintainability performance and the maintenance support performance of an item. In the definition of the item, the external resources required must be delineated. The term availability is used as an availability performance	Within ITIL the concept of Availability covers both eTOM terms.
		Service Availability	A measure of the fraction of time during a defined period when the service provided is deemed to be better than a defined QoS threshold. SA is measured in the context of a SLA between the Customer and the Service Provider concerned. It is expressed as a percentage (SA%) to indicate the time during which the contracted service (e.g. SVCs, PVCs, end-to-end circuits including protocols, applications, etc.) at the respective SAPs is operational. Operational means that the Customer has the ability to use the service as specified in the SLA (TMF 701 modified).	
Baseline	A snapshot or a position which is recorded. Although the position may be updated later, the baseline remains unchanged and available as a reference of the original state and as a comparison against the current position (PRINCE2).	(awaiting further analysis)		Before a Service/Resource can be configured to deliver a new or improve a Product/Service/Resource the current status of the Services/Resources must be understood
Baselining	Process by which the quality and cost- effectiveness of a service is assessed, usually in advance of a change to the service. Baselining usually includes comparison of the service before and after the change or analysis of trend information. The term benchmarking is usually used if the comparison is made against other enterprises.	(awaiting further analysis)		

ITIL Term	Definition	еТОМ	Definition	Comment
		Equivalent		
Business Process	A group of business activities undertaken by an organisation in pursuit of a common goal. Typical business processes include receiving orders, marketing services, selling products, delivering services, selling products, delivering services, distributing products, invoicing for services, accounting for money received. A business process usually depends upon several business functions for support, e.g., IT, personnel, and accommodation. A business process rarely operates in isolation, i.e., other business processes will depend on it and it will depend on other processes.	Business Process	Activities that a business can engage in (and for which it would generally want one or more partners). A Business Process is formally recorded in XML form conforming to the Business Process Specification Schema but may also be modeled in UML.	
Category	Classification of a group of Configuration Items, change documents or problems.	(awaiting further analysis)		The eTOM does not have the concept of the CMDB in ITIL. In order to understand the relationship between Configuration Items held within the CMDB, the Configuration Items are assigned to Categories (ie Router, Switch, Service)
Change	The addition, modification or removal of approved, supported or baselined hardware, network, software, application, environment, system, desktop build or associated documentation.	(awaiting further analysis)		ITIL provides a ridged framework within which Change is controlled.
Change Authority	A group that is given the authority to approve change, e.g., by the Project Board. Sometimes referred to as the Configuration Board.	(awaiting further analysis)		
Change Control	The procedure to ensure that all changes are controlled, including the submission, analysis, decision-making, approval, implementation and post- implementation of the change.	(awaiting further analysis)		
Change Document	Request for Change, change control form, change order, change record.	(awaiting further analysis)		
Change History	Auditable information that records, for example, what was done, when it was done, by whom and why.	(awaiting further analysis)		
Charging	The process of establishing charges in respect of business units, and raising the relevant invoices for recovery from customers.	(awaiting further analysis)		Essential the billing engine/charging mechanism by which Customers are charged for Services.

ITIL Term	Definition	eTOM	Definition	Comment
		Equivalent		
Classification	Process of formally grouping	lerm		
(Configuration	Configuration Items by type e g	analysis)		
Management)	software, hardware, documentation.	analysis)		
indiagonioni,	environment, application.			
Classification	Process of formally identifying changes	(awaiting further		
(Change	by type e.g., project scope change	analysis)		
Management)	request, validation change request,			
	infrastructure change request.			
Classification	Process of formally identifying	(awaiting further		
(Problem	incidents, problems and known errors	analysis)		
Management)	by origin, symptoms and cause.			
Closure	when the customer is satisfied that an	(awaiting further		
Configuration	Configuration of a product or system	analysis)		
Baseline	established at a specific point in time			
Daseine	which captures both the structure and	analysis)		
	details of the product or system, and			
	enables that product or system to be			
	rebuilt at a later date.			
Configuration	Activities comprising the control of	(awaiting further		
Control	changes to Configuration Items after	analysis)		
	formally establishing its configuration			
	documents. It includes the evaluation,			
	coordination, approval or rejection of			
	changes. The implementation of			
	and waivers that impact on the			
	configuration.			
Configuration	Documents that define requirements,	(awaiting further		
Documentation	system design, build, production, and	analysis)		
	verification for a Configuration Item.			
Configuration	Activities that determine the product	(awaiting further		System/Network auditing
Identification	structure, the selection of	analysis)		
	Configuration Items, and the			
	documentation of the Configuration			
	characteristics including interfaces and			
	subsequent changes. It includes the			
	allocation of identification characters or			
	numbers to the Configuration Items			
	and their documents. It also includes			
	the unique numbering of Configuration			
	control forms associated with changes			
	and problems.			

ITIL Term	Definition	eTOM	Definition	Comment
		Term		
Configuration Item (CI)	Component of an infrastructure – or an item, such as a Request for Change, associated with an infrastructure – which is (or is to be) under the control of Configuration Management. Cls may vary widely in complexity, size and type – from an entire system (including all hardware, software and documentation) to a single module or a minor hardware component.	(awaiting further analysis)		
Configuration Management Database (CMDB)	A database which contains all relevant details of each CI and details of the important relationships between CIs.	(awaiting further analysis)		
Configuration Structure	A hierarchy of all the CIs that comprise a configuration.	(awaiting further analysis)		
Contingency Planning	Planning to address unwanted occurrences that may happen at a later time. Traditionally, the term has been used to refer to planning for the recovery of IT systems rather than entire business processes.	(awaiting further analysis)		
Continuous Service Improvement Programme	An ongoing formal programme undertaken within an organisation to identify and introduce measurable improvements within a specified work area or work process.	(awaiting further analysis)		Would be part of the SIP processes for example PLM
Customer	Recipient of the service; usually the customer management has responsibility for the cost of the service, either directly through charging or indirectly in terms of demonstrable business need.	Customer	The term Customer refers to companies or organizations that buys products and services from the Enterprise or receives free offers or services. A Customer may be a person or a business. The Customer is the ultimate buyer of a network service, but the end user may or may not be the one who pays for the service.	
Differential Charging	Charging business customers different rates for the same work, typically to dampen demand or to generate revenue for spare capacity. This can also be used to encourage off-peak or night-time running.	(awaiting further analysis)		
Downtime	Total period that a service or component is not operational, within agreed service times.	(awaiting further analysis)		
End User	See 'user'.	(awaiting further analysis)		

ITIL Term	Definition	eTOM	Definition	Comment
		Term		
First-Line	Service Desk call logging and	(awaiting further		
Support	resolution (on agreed areas, for example, MS Word).	analysis)		
Function	The actions of intended purpose of a	(awaiting further		
	person, team or thing in a specific role. Service Management functions may be	analysis)		
	considered as high-level business			
	activities, often with a broad scope and			
	consisting of a collection of lower level			
	activities. The characteristics of a			
	function are that it is continuous and			
	business enterprise. It is usually			
	associated with more then one process			
	and contributes to the execution of those processes. Rarely do (or should)			
	functions mirror the organisational			
ICT	structure			
	Technology, Telecommunications and	(awaiting further analysis)		
	Data Networking Technologies into a			
Impost	single technology.	(our office further		
impact	an incident. Often equal to the extent	analysis)		
	to which an incident leads to distortion	,		
Impact Analysis	of agreed or expected Service Levels.	(awaiting further		
Impact Analysis	processes, and the potential damage	analysis)		
	or loss that may be caused to the	- /		
	organisation resulting from a disruption to those processes.			
Incident	Any event which is not part of the	Fault	The inability of an item to perform a required	
	standard operation of a service and which causes or may cause an		runction, excluding that inability due to preventive maintenance, lack of external	
	interruption to, or a reduction in, the		resources or planned actions. Note that a fault is	
	quality of that service.		often the result of a failure of the item itself, but	
Incident Control	The process of identifying, recording.	(awaiting further		
	classifying and progressing incidents	analysis)		
	until affected services return to normal operation.			
Information	The means of delivering information	(awaiting further		
Systems (Is)	trom one person to another; ICT is the technical apparatus for doing so.	analysis)		

ITIL Term	Definition	eTOM Equivalent	Definition	Comment
		Term		
IT Service	A described set of facilities, IT and non-IT, supported by the IT Service Provider that fulfils one or more needs of the customer and that is perceived by the customer as a coherent whole.	(awaiting further analysis)		
IT Service Provider	The role of IT Service Provider is performed by any organisational units, whether internal or external, that deliver and support IT services to a customer.	(awaiting further analysis)		
Key Business Drivers	The attributes of a business function that drive the behaviour and implementation of that business function in order to achieve the strategic business goals of the company.	(awaiting further analysis)		
Key Performance Indicator	A measurable quantity against which specific Performance Criteria can be set when drawing up the SLA.	(awaiting further analysis)		
Key Success Indicator	A measurement of success or maturity of a project or process.	(awaiting further analysis)		
Knowledge Management	Discipline within an organisation that ensures that the intellectual capabilities of an organisation are shared, maintained and institutionalised.	(awaiting further analysis)		
Known Error	An incident or problem for which the root cause is known and for which a temporary Work-around or a permanent alternative has been identified. If a business case exists, an RFC will be raised, but, in any event, it remains a known error unless it is permanently fixed by a change.	(awaiting further analysis)		
Metric	Measurable element of a service process or function.	(awaiting further analysis)		
Operational Level Agreement (OLA)	An internal agreement covering the delivery of services which support the IT organisation in their delivery of services.	(awaiting further analysis)		
Operations	All activities and measures to enable and/or maintain the intended use of the ICT infrastructure.	(awaiting further analysis)		

ITIL Term	Definition	eTOM Equivalent	Definition	Comment
		Term		
Outsourcing	The process by which functions performed by the organisation are contracted out for operation, on the organisation's behalf, by third parties.	Outsourcing	Outsourcing is when an enterprise contracts out one or more of its internal processes and/or functions out to an outside company. Outsourcing moves enterprise resources to an outside enterprise and keeping a retained capability to manage the relationship with the outsourced processes.	
Performance	The expected levels of achievement	(awaiting further		
Criteria	which are set within the SLA against specific Key Performance Indicators.	analysis)		
Priority	Sequence in which an incident or problem needs to be resolved, based on impact and urgency.	(awaiting further analysis)		
Problem	Unknown underlying cause of one or more incidents.	Fault	The inability of an item to perform a required function, excluding that inability due to preventive maintenance, lack of external resources or planned actions. Note that a fault is often the result of a failure of the item itself, but may exist without prior failure.	
		Trouble	The perception of a fault or degradation that is judged to require maintenance.	
		Failure	The termination of the ability of an item to perform a required function. Note that after a failure the item has a fault	
Process	A connected series of actions, activities, changes, etc., performed by agents with the intent of satisfying a purpose or achieving a goal.	Process	A Process describes a systematic, sequenced set of functional activities that deliver a specified result. In other words, a Process is a sequence of related activities or tasks required to deliver results or outputs.	
Process Control	The process of planning and regulating, with the objective of performing the process in an effective and efficient way.	(awaiting further analysis)		

ITIL Term	Definition	eTOM Equivalent Term	Definition	Comment
Quality Of Service	An agreed or contracted level of service between a service customer and a Service Provider.	(awaiting further analysis)	The collective effect of service performances which determine the degree of satisfaction of a user of the service. Note that the quality of service is characterized by the combined aspects of service support performance, service operability performance, service integrity and other factors specific to each service. The collective effect of service performance, which determines the degree of satisfaction of a user of the service.	
Request For Change (RFC)	Form, or screen, used to record details of a request for a change to any CI within an infrastructure or to procedures and items associated with the infrastructure.	(awaiting further analysis)		
Resolution	Action which will resolve an incident. This may be a Work-around	(awaiting further analysis)		
Resources	The IT services section needs to provide the customers with the required services. The resources are typically computer and related equipment, software, facilities or organisational (people).	(awaiting further analysis)		
Risk Reduction Measure	Measures taken to reduce the likelihood or consequences of a business disruption occurring (as opposed to planning to recover after a disruption).	(awaiting further analysis)		
Second-Line Support	Where the fault cannot be resolved by first-line support or requires time to be resolved or local attendance.	(awaiting further analysis)		
Service	One or more IT systems which enable a business process.	Service	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. A telecommunication service is a set of independent functions that are an integral part of one or more business processes. This functional set consists of the hardware and software components as well as the underlying communications medium. The Customer sees all of these components as an amalgamated unit.	

ITIL Term	Definition	eTOM Equivalent	Definition	Comment
		Term		
Service Achievement	The actual Service Levels delivered by the IT organisation to a customer within a defined life span.	(awaiting further analysis)		
Service Catalogue	Written statement of IT services, default levels and options	(awaiting further analysis)		Product Catalogure?
Service Desk	The single point of contact within the IT organisation for users of IT services.	Customer Contact Point	A physical or conceptual point at which a Service Provider can interact with any Customer of the offered service for the purpose of maintaining communication services	
Service Level	The expression of an aspect of a service in definitive and quantifiable terms.	(awaiting further analysis)		
Service Level Agreement (SLA)	Written agreement between a Service Provider and the customer(s) that documents agreed Service Levels for a service.	(awaiting further analysis)	A formal negotiated agreement between two parties, sometimes called a Service Level Guarantee. It is a contract (or part of one) that exists between the Service Provider and the Customer, designed to create a common understanding about services, priorities, responsibilities, etc.	
Service Management	Management of Services to meet the customer's requirements.	(awaiting further analysis)		
Service Provider	Third-party organisation supplying services or products to customers.	Information and Communications Service Provider (ICSP)	A company or organization that provides telecommunication services as a business. SPs may operate networks, or they may simply integrate the services of other providers in order to deliver a total service to their Customers. Providing a telecommunication service to any one end Customer may involve multiple SPs, where one provider may "sub-contract" with other providers to fulfil the Customer's needs. The term Service Provider is now being used generically and may include Telecom Service Providers (TSPs), Internet Service Providers (ISPs), Application Service Providers (ASPs) and other organizations that provide services, e.g. internal IT organizations that need or have SLA capabilities or requirements.	
Service Request	Every incident not being a failure in the IT Infrastructure.	Purchase Order		

ITIL Term	Definition	eTOM Equivalent	Definition	Comment
Services	The deliverables of the IT services organisation as perceived by the customers; the services do not consist merely of making computer resources available for customers to use.	(awaiting further analysis)	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. A telecommunication service is a set of independent functions that are an integral part of one or more business processes. This functional set consists of the hardware and software components as well as the underlying communications medium. The Customer sees all of these components as an amalgamated unit.	
System	An integrated composite that consists of one or more of the processes, hardware, software, facilities and people, that provides a capability to satisfy a stated need or objective.	(awaiting further analysis)		
Third-Line Support	Where specialists' skills (e.g., development/engineer) or contracted third-party support is required.	(awaiting further analysis)		
Third-Party Supplier	An enterprise or group, external to the customer's enterprise, which provides services and/or products to that customer's enterprise.	Third-Party Supplier	The Third Party Service Provider provides services to the Enterprise for integration or bundling as an offer from the enterprise to the Customer. Third party service providers are part of an enterprise's seamless offer. In contrast, a complementary service provider is visible in the offer to the enterprise's customer, including having customer interaction.	
Urgency	Measure of the business criticality of an incident or problem based on the impact and the business needs of the customer.	(awaiting further analysis)		
User	The person who uses the service on a day-to-day basis.	End User	The End User is the actual user of the Products or Services offered by the Enterprise. The end user consumes the product or service. See also Subscriber.	
Work-Around	Method of avoiding an incident or problem, either from a temporary fix or from a technique that means the customer is not reliant on a particular aspect of the service that is known to have a problem.	(awaiting further analysis)		

ITIL Term	Definition	eTOM	Definition	Comment
		Equivalent		
		Term		
Workloads	In the context of Capacity	(awaiting further		
	Management Modelling, a set of	analysis)		
	forecasts which detail the estimated			
	resource usage over an agreed			
	planning horizon. Workloads generally			
	represent discrete business			
	applications and can be further			
	subdivided into types of work			
	(interactive, timesharing, batch).			

Annex 2: Correlation Table eTOM / ITIL Incident Management

Strong correlation Medium correlation Low correlation		Strong correlation	Medium correlation	Low correlation
---	--	--------------------	--------------------	-----------------

	Incident Management
Supply Chain Development & Management (SCD&M Processes)	
Supply Chain Capability Delivery (SCD&M - ILM)	
Manage the Tender Process (SCD&M – ILM)	
Customer Relationship Management CRM Processes	
Customer Interface Management (CRM – FAB)	
Selling (CRM - F)	
Order Handling (CRM - F)	
Receive PO and Issue Orders	
Track Order & Manage Jeopardy	
Complete Order	
Problem Handling (CRM - A)	
Isolate Problem & Initiate Resolution	
Report Problem	
Track and Manage Problem	
Close Problem	
Customer QoS/SLA Management (CRM – A	
Retention & Loyalty (CRM - FAB)	
Service Management & Operations Processes (SM&O)	
Service Configuration & Activation (SM&O - F)	

Track & Manage Work Orders	
Service Problem Management (SM&O - A)	
Evaluate & Qualify Problem	
Diagnose Problem	
Plan & Assign Resolution	
Track & Manage Resolution	
Close & Report	
Resource Management & Operations (RM&O) Processes	
Resource Provisioning (RM&O - F)	
Configure & Activate Resource (RM&O – F)	
Resource Trouble Management (RM&O - A)	
Survey & Analyze Resource Trouble (RM&O – A)	
Localize Resource Trouble (RM&O – A)	
Correct & Recover Resource Trouble (RM&O – A)	
Track & Manage Resource Trouble (RM&O – A)	
Close Resource Trouble (RM&O – A)	
Resource Performance Management (RM&O - A)	
Supplier/Partner Relationship Management (S/PRM) Processes	
S/PRM Operations Support & Readiness (S/PRM - OSR)	
Support S/P Performance Management	
S/P Requisition Management (S/PRM - F)	
S/P Problem Reporting & Management (S/PRM - A)	
Report Problem to S/P	
Receive & Notify Problem from S/P	
Manage S/P Problem Resolution	
S/P Interface Management (S/PRM - FAB)	
Manage S/P Requests (Including Self Service)	
Analyze & Report S/P Interactions	

Annex 3: A combined eTOM and ITIL process approach

Customer oriented business view

A combined eTOM-ITIL approach represents an opportunity to ICSP's and more specifically for their service delivery workforce to learn about a process standard being used by their enterprise customers in their strategic business environment. The business value this could deliver can be articulated as follows:

Focused customer communication: Using the same process jargon as being used by enterprises to communicate details around service delivery in an IT environment will facilitate and improve the communication between ICSP's and their respective enterprise customers.

Improved service offering: Being able to communicate on the same wavelength with their respective enterprise customers will allow ICSP's to extend their comprehension on service requirements hereby being able to customize services to particular business requirements.

Customer satisfaction: Speaking the same business process language and being able to deliver services that are addressing the customer requirements will improve customer satisfaction.

The high level layout of an eTOM-ITIL combined process environment and the interaction between the two is shown in Figure A3/1 below.



Figure A3/1: Value of an eTOM-ITIL combined process environment

The interaction between the ICSP and enterprise customer will be partially based on ITIL while the actual service delivery process is eTOM framed. The service operations activities will be based upon the eTOM framework where ITIL could deliver components to constitute the actual end to end eTOM process.

The enterprise company will be able to continue to use ITIL has the business process framework supporting the ICT department in the internal delivery of services. It will be the mapped approach of eTOM-ITIL at the ICSP level that will assure customer communication transparency.

ICSP internal oriented business view

A combined eTOM-ITIL business process framework gives an opportunity to service providers to use the best of both worlds to strengthen and/or constitute a strategic business process environment. This by using:

- eTOM's business perspective and wide scope
- ITIL's details and process best practice definitions

Both process framework are complementary to each other and can deliver incremental value to the process standardization efforts.

A combined eTOM-ITIL approach will streamline and consolidated separate process environments hereby creating an opportunity to identify redundant areas and opportunities for process improvement. In summary the benefits could be articulated as follows:

OPEX optimization: Redundant functions could be consolidated and integrated hereby reducing the cost of process operations.

Clarity on process strategy: A clear strategy on business process frameworks will minimize and even avoid disputes between departments and process verticals.

Process environment complexity reduction: An integration of two process environments into one horizontal process layout will remove vertical process boundaries and eliminate the need of unnecessary interactions with dispersed process building blocks being part of a split process environment. Also the re-usability of standard process building blocks will reduce the necessity to develop add-hock process building blocks.

Clearer communication: Simplification and reduced number of measurement points will improve the communication with the ICSP's executive management around service delivery & process performance metrics.

Figure A3/2 below shows from a high level viewpoint the advantages of a split versus combined process environment as articulated above.



Figure A3/2 – Split versus combined process environment

Simpler and clearer communication with the executive management and being able to deliver metrics that really matter for the strategic directions of the ICSP company will increase the importance of a combined and standard based process environment.

A combined process strategy will improve customer engagements around service delivery and will create a good foundation to address the future process requirements for the next generation networks and services.

Administrative Appendix

Acknowledgements

This document release has been developed with the contribution and assistance of individuals and companies active in both the TM Forum/eTOM community and the itSMF/ITIL community. The main contributors for this interim release are:

- Philip Williams, BT Group, (eTOM/ITIL SubTeam Lead)
- Sandra Hausmann, Casewise
- Tony Verspecht, Cisco Systems
- Karen Shepherd, Gefion
- Nick Webb, QinetiQ
- Bridget Bannear, Telstra
- Mike Kelly, TM Forum

In addition, valuable comments and directional reviews from the following people are also greatly appreciated:

- Jenny Huang, AT&T
- Martin Huddleston, QinetiQ

See main document (GB921) for other acknowledgements.

About this document

This is a TM Forum Application Note. This provides additional guidance on the application of other TMF artifacts (in this case, principally eTOM).

Document Life Cycle

The "Enhanced Telecom Operations Map® (eTOM) The Business Process Framework For The Information and Communications Services Industry" has been issued as Release 6.0 with a Guidebook Number of 921. This document (GB921V) is provided for information only and will be updated or superseded in a future eTOM Release as further information and analysis in this area is developed, and as the result of TMF Member comments on it.

See main document (GB921) for further information on the eTOM Solution Suite documents.

Time Stamp

This version of GB921V is expected to be updated within six months of release.

How to obtain a copy

An electronic copy of the eTOM Business Process Framework can be downloaded at the TM Forum Web Site (<u>http://www.tmforum.org</u>). Contact the TM Forum office (see previously for contact details, or via the web site) for any further information.

How to comment on the document

Comments must be in written form and addressed to the contacts below for review with the project team. Please send your comments and input to:

Mike Kelly, TM Forum eTOM Program Manager mkelly@tmforum.org

Please be specific, since your comments will be dealt with by a team evaluating numerous inputs and trying to produce a single text. Thus, we appreciate significant specific input. We are looking for more input than "word-smith" items, however editing and structural help are greatly appreciated where better clarity is the result.

Document History

Version History
Version Number	Date Modified	Modified by:	Description of changes
6.0.1 to	Mar-Aug 2005	Philip Williams	Updates to
6.0.7			include
			Change
			Management
6.0.8	29 Sept 05	Mike Kelly	Final editing
			to prepare for
			Team
			Approval
6.0.9	Oct 05	Mike Kelly	Fixed
			diagrams 7
			and 8
			(accidentally
			reversed)
6.1	November 2005	Tina O'Sullivan	Minor
			corrections
			prior to
			Member
			Evaluation.

Release History

Release	Date	Purpose
eTOM Addendum	05/04	Launch of this Application Note, packaged as GB921V for this release.
V Release 4.6		Provides an interim view of analysis of eTOM/ITIL linkage, and will be updated and enlarged in future releases
eTOM Addendum V Release 5.0	Mar 05	Update to merge previous GB921L content
eTOM Addendum V Release 6.0	Sept 05	Update with Change Management detail

Summary of Changes in this Version

The major change from the previous version (GB921V 6.0) is introduction of new material around ITIL Change Management.

See main document (GB921) for further change information and future additions.

References

Related or Source Documents

See main document (GB921) for references.