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SERIES M: TMN AND NETWORK MAINTENANCE:
INTERNATIONAL TRANSMISSION SYSTEMS,
TELEPHONE CIRCUITS, TELEGRAPHY, FACSIMILE
AND LEASED CIRCUITS

Telecommunications management network

Enhanced Telecom Operations Map (eTOM)

Supplement 1: ITIL application note

ITU-T Recommendation M.3050 – Supplement 1

ITU-T M-SERIES RECOMMENDATIONS

TMN AND NETWORK MAINTENANCE: INTERNATIONAL TRANSMISSION SYSTEMS, TELEPHONE CIRCUITS, TELEGRAPHY, FACSIMILE AND LEASED CIRCUITS

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ITU-T Recommendation M.3050

Enhanced Telecom Operations Map (eTOM)

Supplement 1

ITIL application note

Summary

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

This Supplement provides a mapping to the IT Infrastructure Library.

Source

Supplement 1 to ITU-T Recommendation M.3050 was agreed on 7 May 2004 by ITU-T Study Group 4 (2001-2004).

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FOREWORD

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

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

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

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ITU-T Recommendation M.3050

Enhanced Telecom Operations Map (eTOM)

Supplement 1

ITIL application note

1 Scope

The Enhanced Telecom Operations Map[®] (eTOM) [GB921] has been developed by the TeleManagement Forum as a reference framework for categorizing all the business activities that a service provider will use. It should be noted that the TMF retains ownership of the eTOM and copyright of the underlying IPR. The ITU-T will own the copyright on the M.3050.x-series ITU-T Recommendations themselves.

This Supplement is a part of a series of ITU-T texts dealing with eTOM, and which have the following structure:

- M.3050.0: eTOM – Introduction.
- M.3050.1: eTOM – The business process framework. (TMF GB921 v4.0.)
- M.3050.2: eTOM – Process decompositions and descriptions. (TMF GB921 v4.0 Addendum D.)
- M.3050.3: eTOM – Representative process flow. (TMF GB921 v4.0 Addendum F.)
- M.3050.4: eTOM – B2B integration: Using B2B inter-enterprise integration with the eTOM. (TMF GB921 v4.0 Addendum B.)
- M.3050 Supplement 1: eTOM – ITIL application note. (TMF GB921 v4.0 Addendum L.)
- M.3050 Supplement 2: eTOM – Public B2B Business Operations Map (BOM). (GB921 Addendum C.)
- M.3050 Supplement 3: eTOM to M.3400 mapping.

Additional parts will be published as material becomes available.

This series of ITU-T Recs M.3050.x build on the Management Services approach described in ITU-T Recs M.3010 and M.3200 by developing a Business Process Framework.

This Supplement provides a mapping to the IT Infrastructure Library.

2 References

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

3 Definitions

The following term is defined in ITU-T Rec. M.3050.0:

- a) eTOM

4 Abbreviations

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

- CAB Change Advisory Board
- ICSP Information and Communications Service Providers
- ITIL IT Infrastructure Library
- ItSMF IT Service Management Forum
- OGC Office of Government Commerce

5 Introduction

5.1 Objective

While eTOM is the global *de facto* Business Process Framework at the Enterprise Level for the Telecommunications Industry, specific process frameworks and good practice guides have also been developed for use in other industries, for example, the Supply Chain Council, the IT Infrastructure Library (the subject of this application note) and the Balanced Scorecard. This Supplement is the first in a planned series of texts showing how the frameworks and best practices of other industry sectors can be used together with the eTOM to provide a richer and more complete Enterprise Business Process Framework.

5.2 Background

In recent years there has been a rapid growth and evolution in the sophistication of telecommunications services offered to customers, reflected in increasing complexities in the hosting, switching, routing and transport platforms on which those services are delivered and managed. As the telecommunications market has developed, the network control environments and even the make-up of those services is becoming more IT based and orientated. An example of this is the growth in IP-based products.

To support these trends, Information and Communications Service Providers (ICSPs) are becoming increasingly reliant on the provision of high quality IT services from their own providers. At the same time, customers are making stringent demands on their ICSPs for high quality service management capabilities, as the services they support are becoming ever more critical to the customer's business operations.

These new directions are leading to a juxtaposition of process engineering based challenges in both the IT and telecoms spaces that both eTOM and ITIL can contribute to addressing. One way to show how eTOM can be put to practical use is to use it to model the IT Service Management processes using the Process Elements from eTOM.

5.3 Role of eTOM

eTOM is a business process framework to guide the development and management of key processes within an Information and Communications Service Provider. It provides this guidance by offering a catalogue of industry-standard names, descriptions and scope, at multiple hierarchical levels, of all the

Business Activities (or Process Elements) within an ICSP. Among its objectives is to aid the end-to-end automation of information and communications services for business and operations processes. Its functional coverage is still at a high level with respect to any detailed descriptions of key internal support services, including the management and delivery of IT services. It is intentionally aimed at a broad coverage of activities within an Information and Communications Service Provider, without documenting detail because its purpose is to focus on the commonality between similar processes (whether for telephony, data, Internet, mobiles, content etc), rather than delivering complete detail to guide implementation.

5.4 Role of ITIL

The operational processes described in the IT Infrastructure Library (ITIL®) for managing IT Services have never been more relevant to ICSPs. They were developed to provide guidance on the best practice for IT Service Management processes. In the words of the ITIL authors:

The ethos behind the development of the IT Infrastructure Library (ITIL) is the recognition that organizations are increasingly dependent upon IT to satisfy their corporate aims and meet their business needs. This growing dependency leads to growing needs for quality IT services – quality that is matched to business needs and user requirements as they emerge.

This is true no matter what type or size of organization, be it national government, a multinational conglomerate, a decentralized office with either a local or centralized IT provision, an outsourced service provider, or a single office environment with one person providing IT support. In each case there is the requirement to provide an economical service that is reliable, consistent and of the highest quality.

IT Service Management is concerned with delivering and supporting IT services that are appropriate to the business requirements of the organization. ITIL provides a comprehensive, consistent and coherent set of best practices for IT Service Management processes, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems.

There are three key areas in which ITIL may be applied within an ICSP.

- 1) As Products which are sold to Customers increasingly include IT type offerings (LAN services, Web Hosting, etc.), the internal processes which are needed to enable and support these IT type offerings must be designed to be an integral part of the complete end-to-end processes – i.e., the back-of-house engineering processes must be integrated with the customer-focused sales and customer management processes. This can be done by modelling ITIL processes using eTOM Process Elements.
- 2) Customers are outsourcing the delivery and support of their IT Services to Telcos, so Telcos are offering IT Service Management as a sellable service. Because the Telco is dealing with the Customer IT workforce, they must communicate using ITIL standards or using the language of the ITIL standards.
- 3) Telcos are becoming more dependent on effective IT Service Management of their own computer systems. Since ITIL represents best practice in this area, it is natural that ITIL terminology will be used in this field. Since they are doing this specialist task within a Telco, they need to understand how to describe ITIL activities in eTOM terms.

® ITIL is a registered trade mark of OGC – the Office of Government Commerce.

5.5 Purpose of this Supplement

ITIL can be used very effectively in conjunction with eTOM, in that it will assist in creating a more complete Enterprise Business Process Framework which includes all the functional elements needed for IT support processes. For an ICSP company consolidating their processes, using ITIL as a guide to IT Service Management processes can provide a number of benefits:

- a better understanding of how the IT systems are managed in contributing to the delivery of Services to Customers;
- more efficient and effective management of Customer services having a significant IT basis (e.g., Application and Web Services).

The aim of this application note is to:

- Show how eTOM can be used to model the IT Service Management processes (Incident Management, Configuration Management, etc.) in a way that is consistent with the modelling standard for Information and Communications Service Providers – eTOM.
- Provide an overview and introduction to the ITIL Service Management Frameworks from an Information and Communications Service Provider perspective.
- Show which eTOM process type each ITIL Service Management process belongs to.
- Illustrate the eTOM process elements needed in order to create ITIL-recommended processes.

5.6 Structure of this Supplement

This Supplement has three major parts: an introduction to ITIL Service Management and Service Management Processes, the relationship between eTOM and ITIL, how eTOM process elements can be used to build ITIL processes and a mapping between eTOM and ITIL. The following is the structure of this Supplement:

- | | |
|----------|---|
| Clause 5 | Introduction: Provides overview of this Supplement and outlines its structure. |
| Clause 6 | ITIL Background/Introduction: Background on the ITIL framework and its applicability to the telecommunications environment. |
| Clause 7 | Service Management in ITIL: A guide to the ITIL Service Management processes. |
| Clause 8 | Relationship between ITIL and eTOM: Description of the relationship between the ITIL and eTOM frameworks. |
| Clause 9 | ITIL to eTOM Mapping: Mapping between the eTOM and ITIL frameworks, from a process flow perspective and an analytical perspective. |

Appendices

- | | |
|-------------|--|
| Appendix I | Terminology, acronyms and abbreviations |
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6 ITIL background/introduction

6.1 Overview

"ITIL[®] (the IT Infrastructure Library) was initially developed by the UK government's Central Computer and Telecommunications Agency (CCTA), with input from industry to give guidance upon

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the best practice in managing IT Services. It has recently been rewritten under the direction of the Office of Government Commerce (OGC) which was set up in 2000 and incorporates CCTA, which no longer operates as a separate agency." ITIL is the global *de facto* standard for IT Service Management and forms the basis for BS15000. ITIL is now comprised of a seven-document set consisting of:

- Service Support;
- Service Delivery;
- Application Management;
- ICT Infrastructure Management;
- Security;
- The Business Perspective;
- Planning to Implement Service Management.

The relationship between these documents is shown in Figure 6-1.

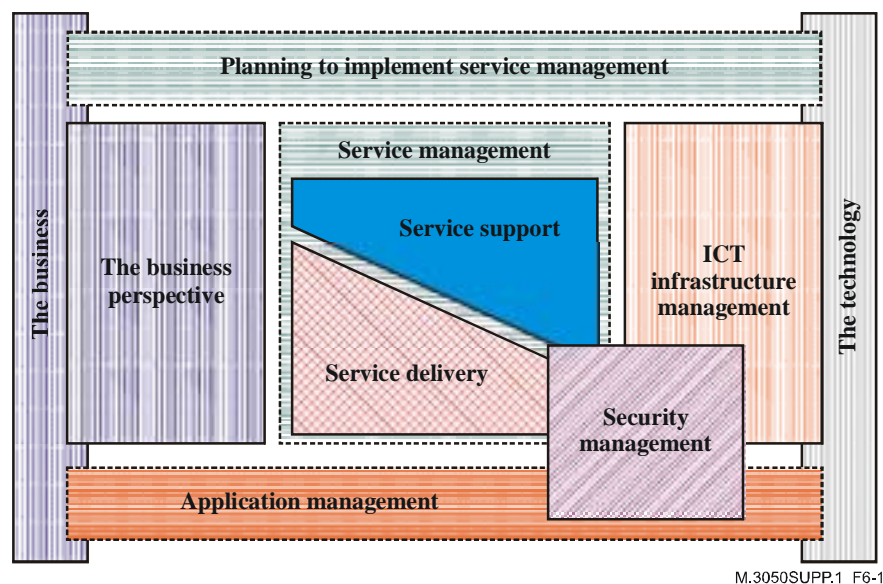


Figure 6-1 – The ITIL publication framework © OGC

6.2 Service Delivery & Service Support – The core of ITIL

The two "core" ITIL documents which were published initially, Service Delivery and Service Support combine to cover all aspects of services as perceived by the end-user of those services. This combination covers the area of "Service Management" as defined by ITIL. The content of these documents is covered in clause 7 below. The remaining ITIL documents (with the exception of "The Business Perspective" – not available at the time of writing) are:

- 1) **Application Management** covers the full lifecycle of a service including Development in addition to Delivery and Support of the service. An application is viewed as being primarily software so the core of this book looks at software development issues with the emphasis being on how to ensure that what is developed is kept aligned with the organizations strategic direction and existing support infrastructure.
- 2) **Security Management** covers issues such as Confidentiality, Integrity and Availability of data as well as the security of hardware, software, documentation and procedures. The Security

Management function is responsible for interfacing with Service Management processes when any of these issues are involved.

- 3) **Planning to Implement Service Management** focuses on how to set about putting in place the core Service Management processes that comprise Service Delivery and Service Support although the principles detailed in the document should apply to processes elsewhere as well.
- 4) **ICT Infrastructure Management** covers the provision and support of the infrastructure necessary for the delivery and support of services and, as such, interacts with virtually all the processes in Service Delivery and Service Support.

7 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.

7.1 Service Support

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

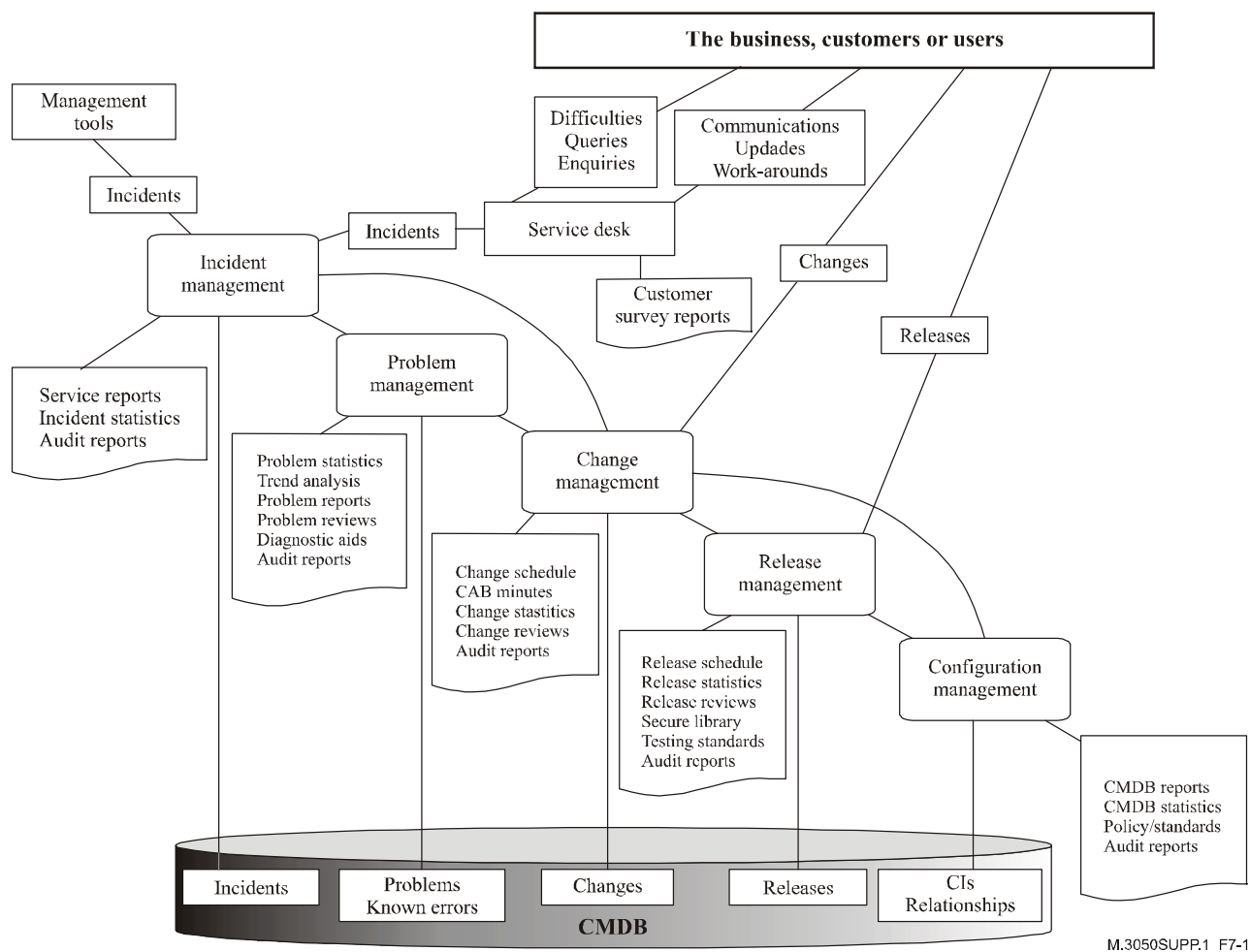


Figure 7-1 – ITIL Service Support diagram (© OGC)

Service Support decomposes into the following functions and processes:

7.1.1 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.

7.1.2 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 minimizing any negative impact upon business operations.

7.1.3 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.

7.1.4 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 organization 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.

7.1.5 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).

7.1.6 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.

7.2 Service Delivery

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

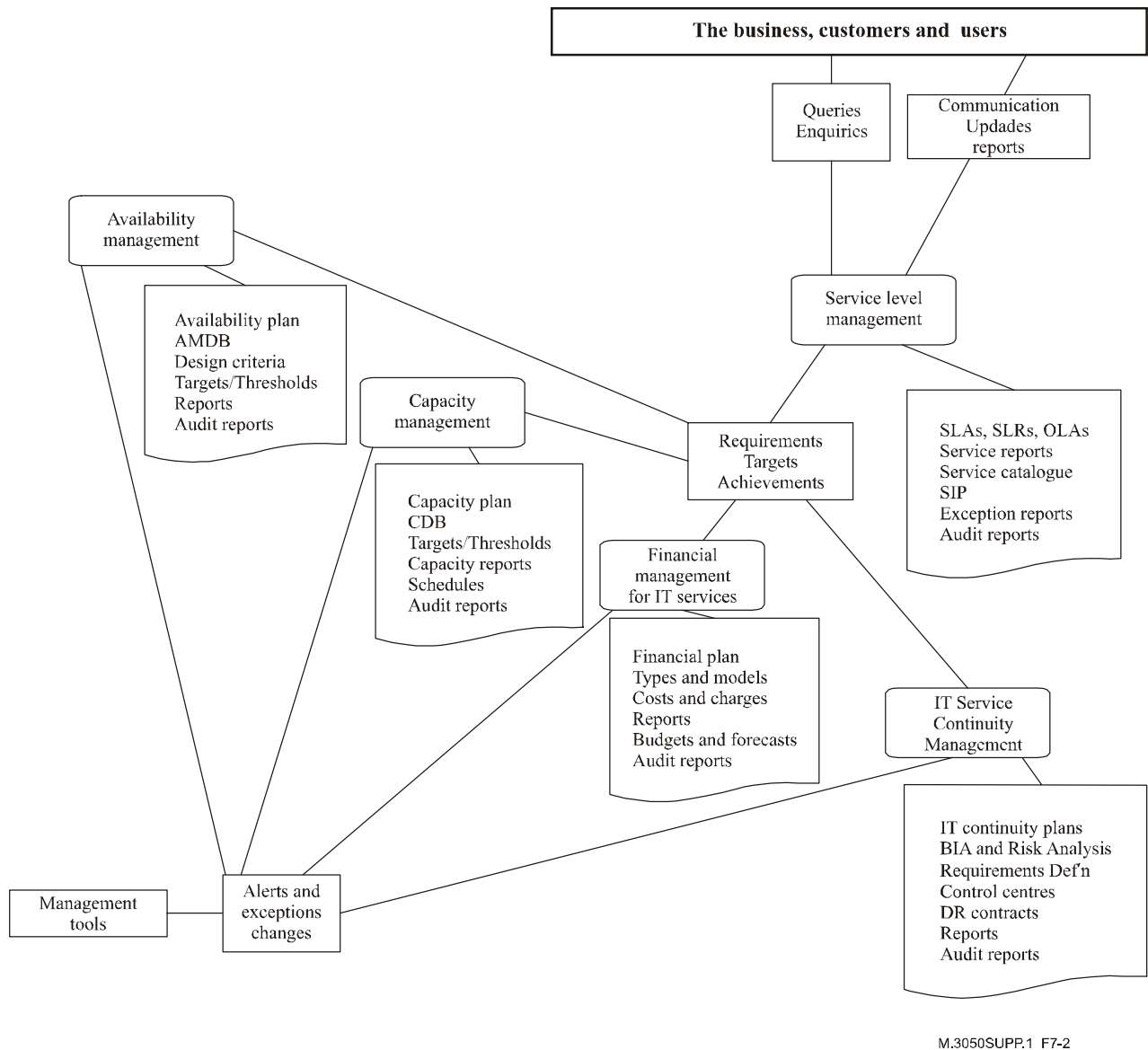


Figure 7-2 – ITIL Service Delivery diagram (© OGC)

Service Delivery decomposes into the following main processes:

7.2.1 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 organization) through Service Level Agreements (SLAs), Operational Level Agreements (OLAs) and Underpinning Contracts (UCs).

7.2.2 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.

7.2.3 Capacity Management

The aim of the Capacity Management process is to 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 process also looks at improving IT Service Delivery through the introduction of new technology and continuous monitoring and improvement of the IT Service.

7.2.4 IT Service Continuity Management

The IT Service Continuity Management process underpins the organizations 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.

7.2.5 Availability Management

The aim of the Availability Management process is to ensure that the availability of the IT Services meets 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.

7.3 Application Management

Application Management overlaps Service Management as shown in Figure 7-3 below and is divided into two areas:

- 1) Application development – those activities are 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 in Figure 7-3 below:

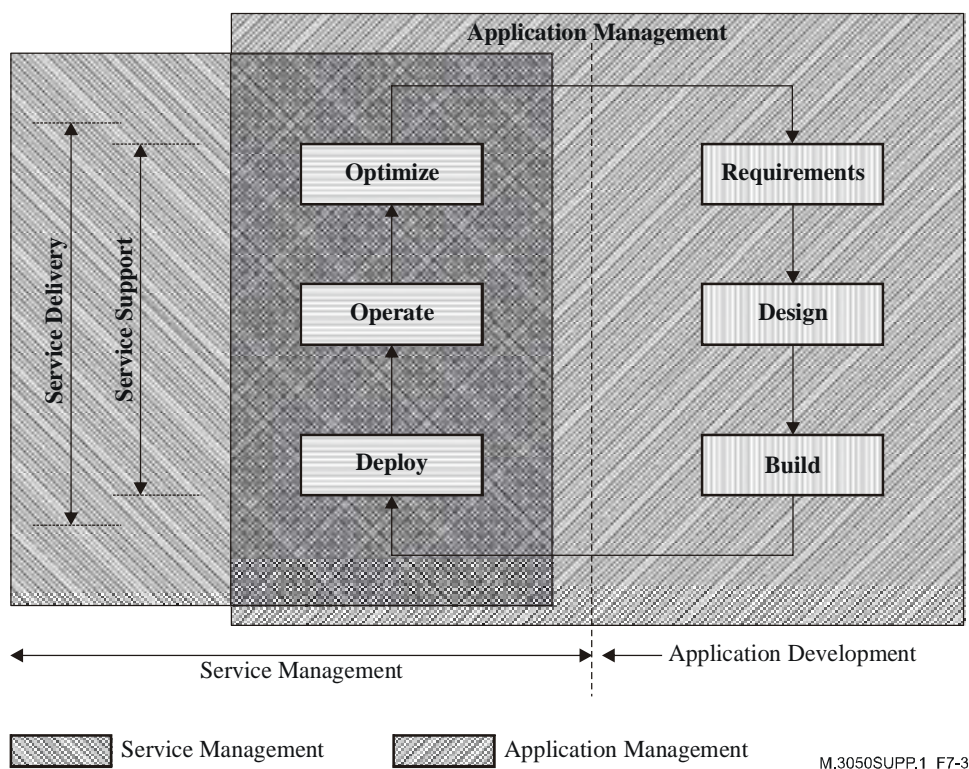


Figure 7-3 – Relationship between Service & Application Management

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 Figure 7-3, the functionality they will typically embody, the interactions they will have with other Service Management processes and the way in which an organization should approach implementing these processes.

8 Using eTOM to model ITIL processes

8.1 ITIL is a guideline for IT Service Management

ITIL was originally developed as a guideline to serve a single Customer, though many Users, delivering many IT Services. The Customer in this case is generally the organization or company that is using the IT Services to support its business whether they are provided using internal resources or external outsourcers. Below this single point of delivery any number of Operational Level Agreements (OLAs) and Under Pinning Contracts can be used to support the delivery of IT Services to the Customer and their Users. An OLA is an internal Service Level Agreement while an Under Pinning Contract is a Service Level Agreement with a third party supplier.

ITIL is primarily non-prescriptive – it offers advice/guidance on the implementation and continued delivery of Service Management. It contains extensive advice covering the construction of cases for the systematic implementation of Service Management, overcoming objections raised to those proposals,

planning their implementation and resolving typical problems likely to be encountered during the implementation process.

8.2 eTOM is a catalogue of Process Element categories

eTOM is a business process framework to guide the development and management of key processes within an Information and Communications Service Provider. It provides this guidance by offering a catalogue of industry-standard names, descriptions and scope, at multiple hierarchical levels, of all the Business Activities (or Process Elements) within an Information and Communications Service Provider.

The current version of eTOM is customer centric viewing business processes in terms of their contribution (whether directly or indirectly) to customer service. At that level, it is difficult to discern the shape of some of the internal support processes dealing with the infrastructure, resource and business needs of the organization. Those processes supporting IT systems fall into this category. Future iterations of eTOM may illustrate the shape of these processes, as well as develop the linkages needed between these processes and Customer-related processes.

To accelerate these enhancements to eTOM, reference to specialized process recommendations such as ITIL will bridge these gaps with proven, reliable process models. Further, the application of eTOM to the development of ITIL processes is likely to improve the scope and design of these processes, and will ensure their successful integration into a Service Provider's overall process environment.

8.3 Distinguishing between Service and Service Instant

The ITIL framework is centred on the two Service Management areas of "service delivery" and "service support", but without a clear demarcation between the delivery/support of a service (into the company's product portfolio) and the delivery/support of an instance of that service to a specific customer.

Consider for example an ITIL process such as Capacity Management:

- When a new product is being planned/developed consideration needs to be given to the implications of deploying this product on the capacity of the existing infrastructure, conversely, it might be a design aim that the product minimizes its impact on capacity. (For example, it could utilize compression technology to reduce bandwidth requirements.)
- When a product is deployed and new instances are being supplied to end-users, continuous monitoring is required to assess the impact of uptake on capacity.

eTOM represents Service Instance within the Operations level-0 process grouping that is concerned with the delivery of service to a user, and Generic Services within the SIP level-0 process grouping which is concerned with the lifecycle management of both Products and Infrastructure.

An ITIL process such as Capacity Management will be represented within both of these major groupings.

9 Mapping and modelling between ITIL and eTOM

9.1 Scope and types of mapping in this Supplement

There are several methods of mapping the relationship between the ITIL processes and the eTOM framework. For example ITIL processes can be decomposed into lower-level processes and end-to-end

flows can be constructed from a combination of both eTOM and ITIL processes. Alternatively, ITIL processes can be constructed solely from lower-level eTOM process elements¹. This Application Note is focused on the latter methodology, showing how ITIL Service Management processes can be modelled using the Process Elements of the eTOM process framework. Modelling any operational process using these Process Elements is essential for communicating and understanding processes in a way that will achieve enterprise-wide efficiencies and reuse. Mappings of other ITIL processes may be the subject of later revisions of this Application Note or may be the subject of separate Application Notes.

It is also possible to take an information-mapping approach to show a relationship between eTOM and ITIL (see Figure 9-9). But this should be considered an analytic view useful to managers of the models, whereas the flow mapping (see Figures 9-1 to 9-8) is what is useful to process analysts and operators. Though modellers may find benefit in the analytical view in understanding which eTOM process elements form ITIL processes.

9.2 Modelling ITIL processes using eTOM process elements

Information and Communications Service Providers need to ensure that the many different processes that they operate will work together effectively, staff can easily understand the processes without having to learn a new language and they must be effectively implemented in IT. To do this, they need to model all their operational process in a standard way, and that can be done by modelling the processes using the Process Elements of the eTOM process framework. The approach used to model ITIL operational processes is exactly the same as for modelling other operations processes such as Fulfilment or Assurance and this methodology is documented in ITU-T Rec. M.3050.3.

Here are seven processes as examples to show how the ITIL Assurance processes can be modelled (or built up) in a standardized way using the eTOM Process Elements.

¹ It should be noted that eTOM v4.0 is currently defined to Level 2 for Operations processes and Level 2 for all other processes.

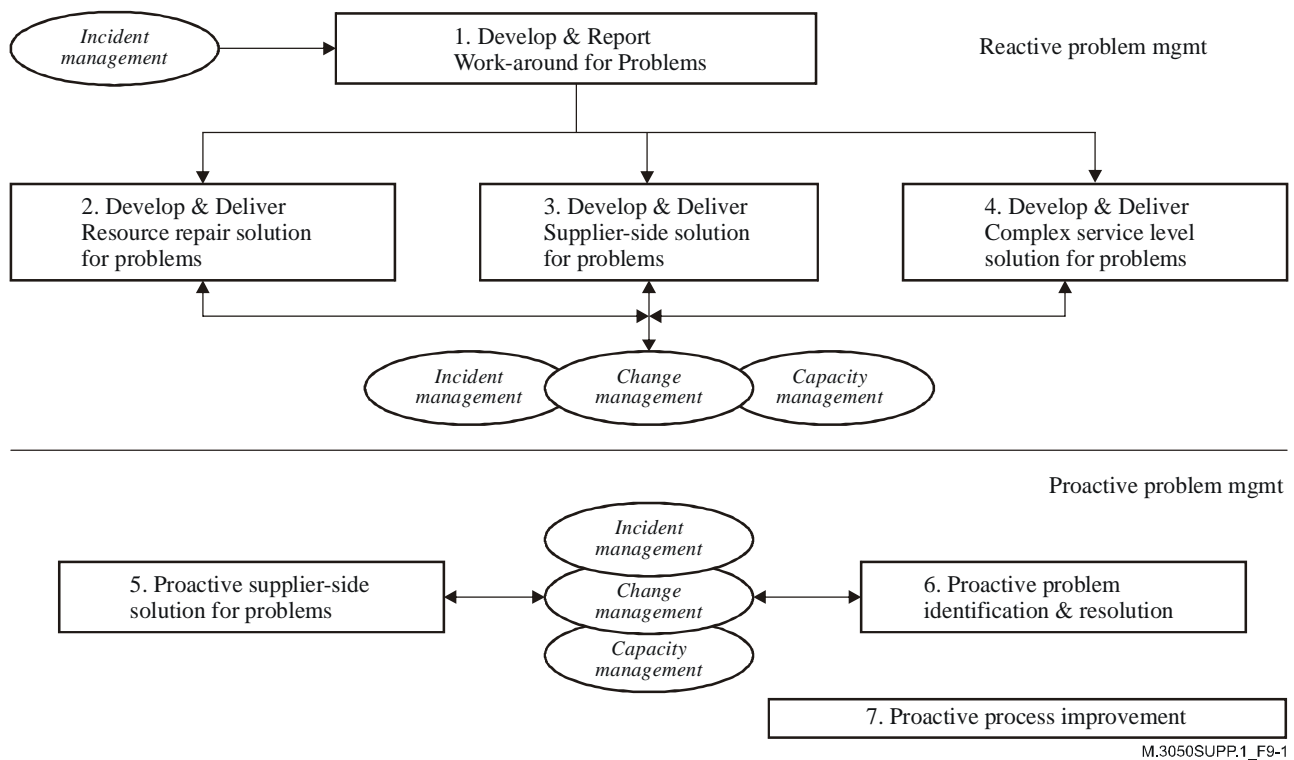


Figure 9-1 – Overview of ITIL Assurance processes to be modelled in these examples

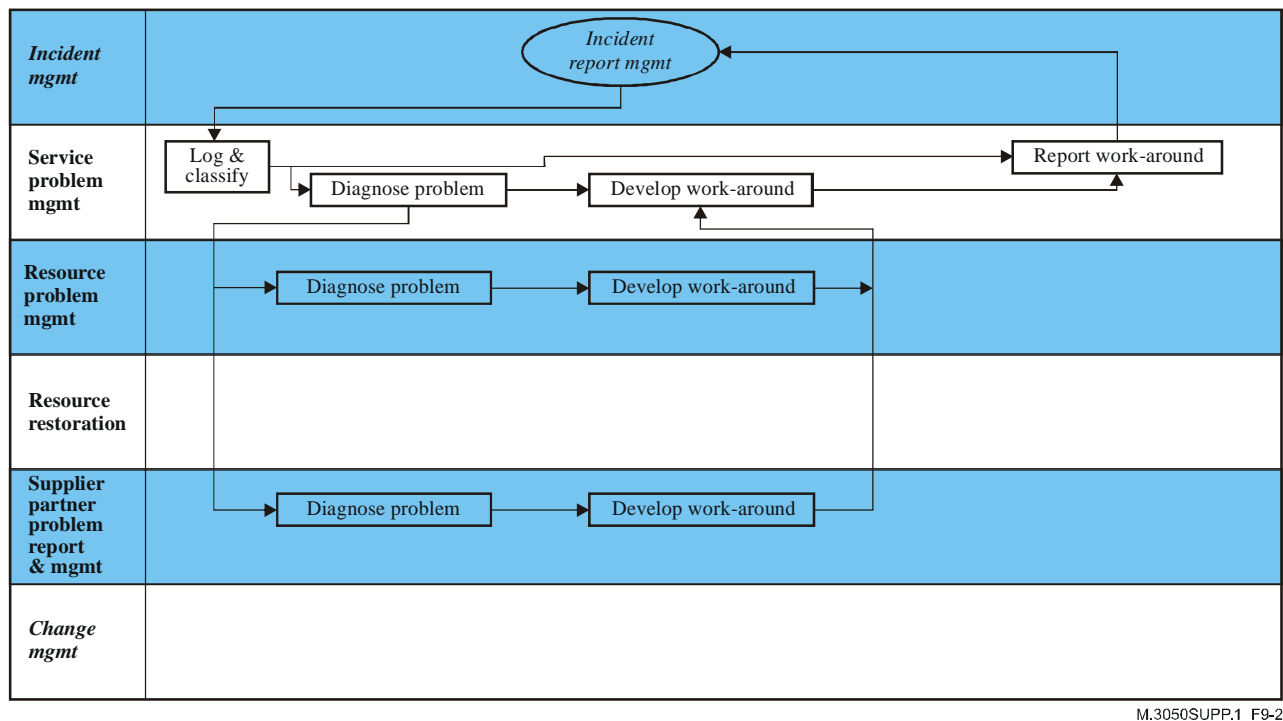
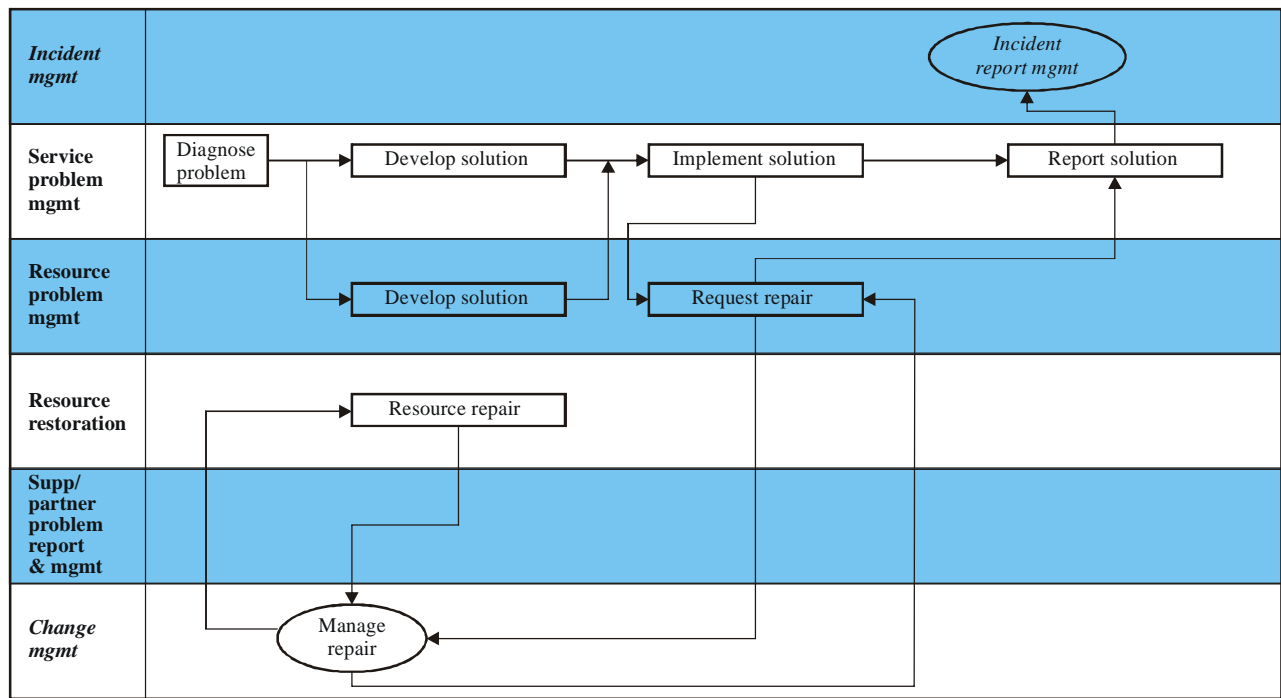
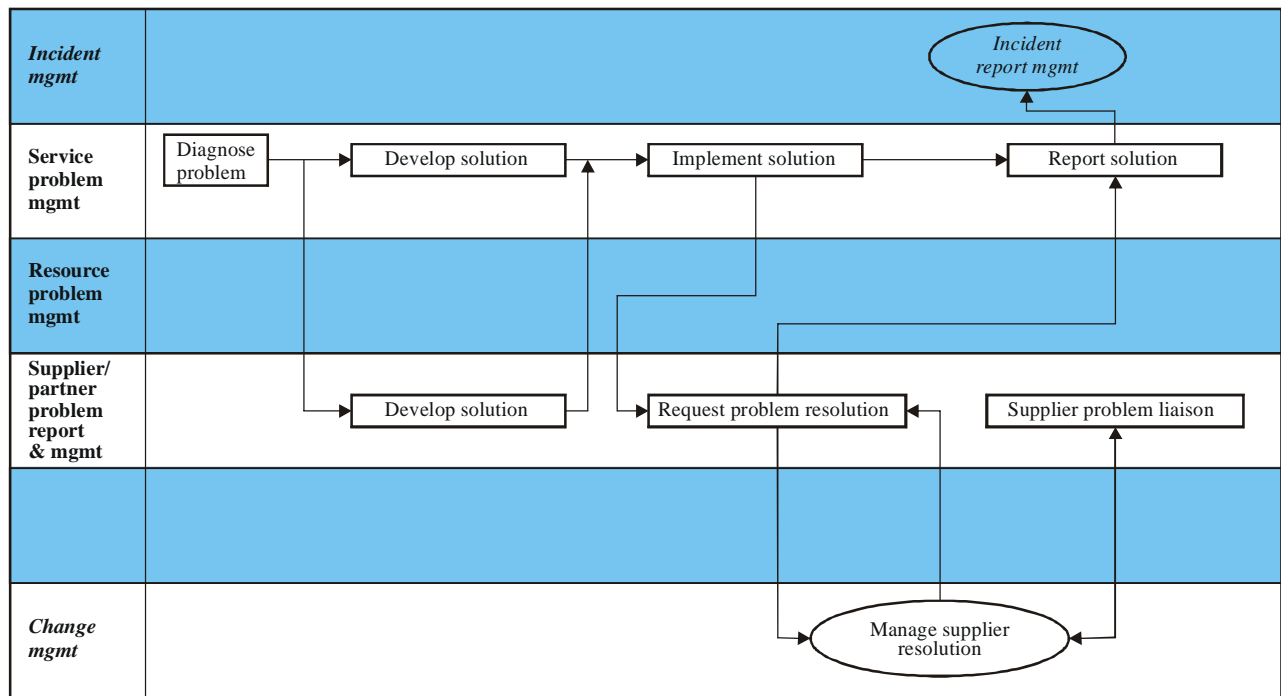


Figure 9-2 – Develop & Report work-around for problems



M.3050SUPP.1_F9-3

Figure 9-3 – Develop & Deliver resource repair solution for problems



M.3050SUPP.1_F9-4

Figure 9-4 – Develop & Deliver supplier-side solution for problems

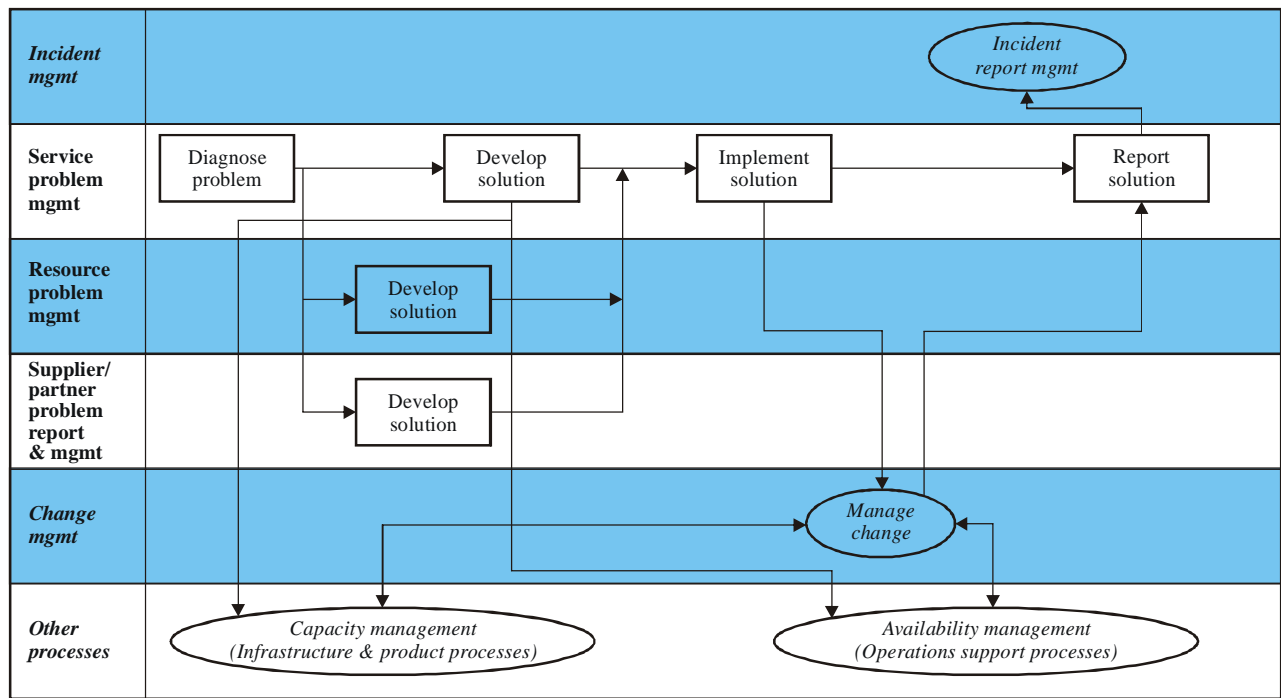


Figure 9-5 – Develop & Deliver complex service level solution for problems

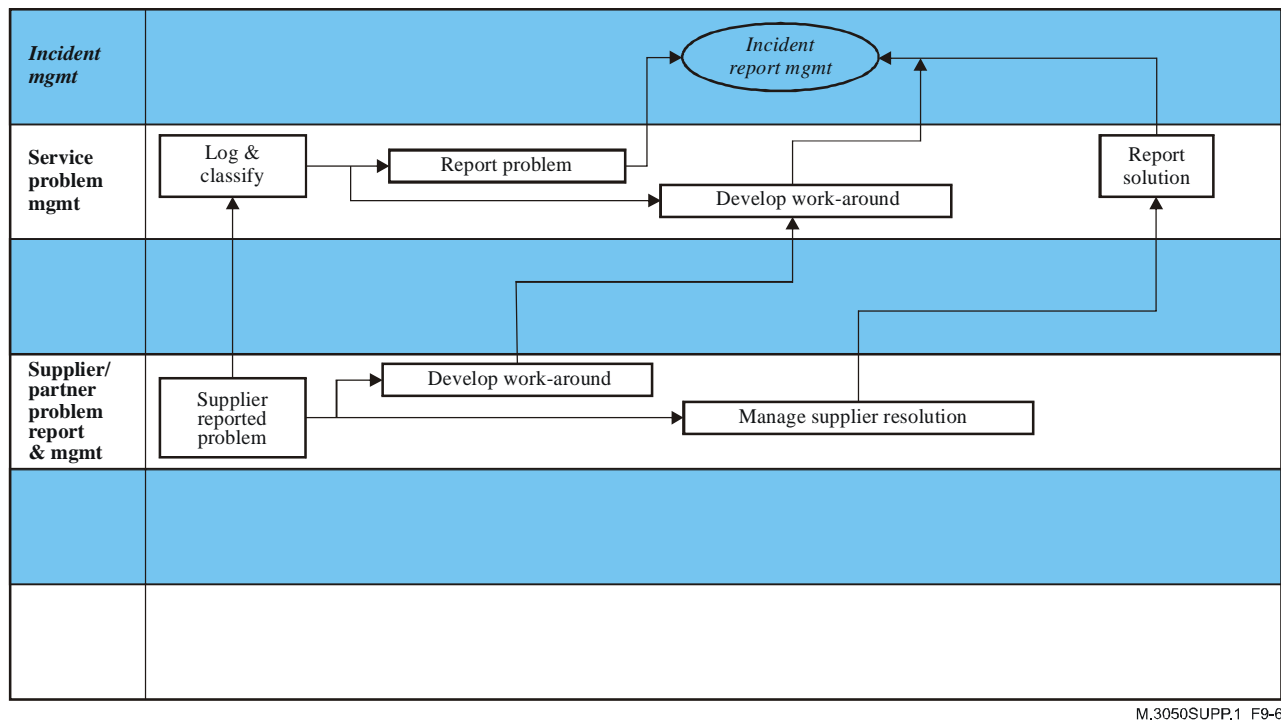
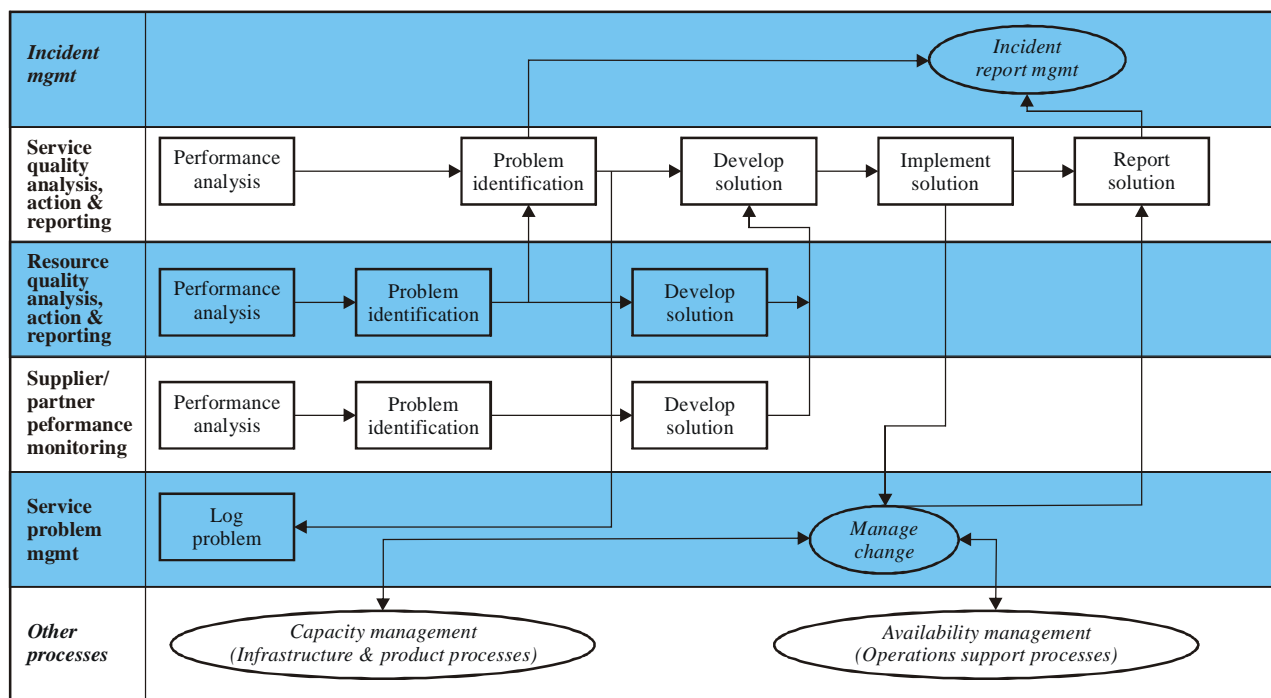
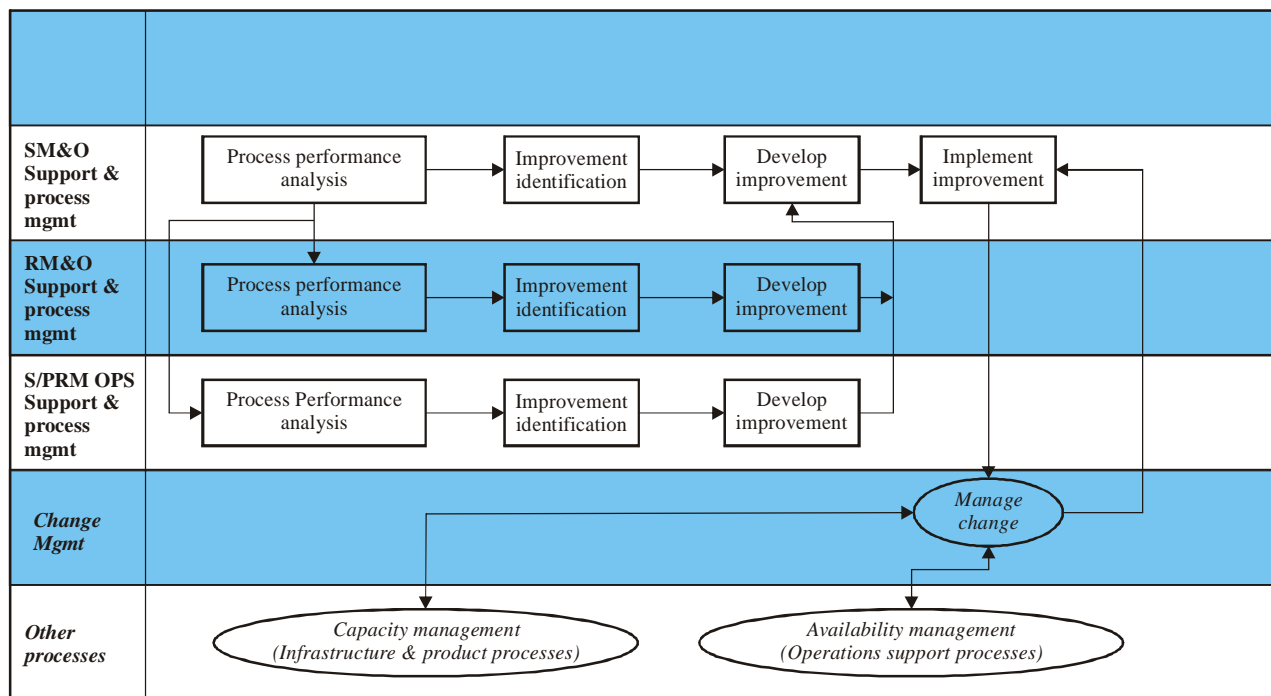


Figure 9-6 – Proactive supplier side solution for problems



M.3050SUPP.1_F9-7

Figure 9-7 – Proactive problem identification and resolution



M.3050SUPP.1_F9-8

Figure 9-8 – Proactive process improvement

9.3 Information-mapping approach to ITIL and eTOM

As ITIL recommends operational end-to-end processes, and eTOM standardizes process element decompositions, information-mapping views will appear to be complex. In addition, because ITIL and eTOM dissect their respective domains of interest in essentially different ways, the overlay of processes will not typically be one to one.

Because ITIL recommends operational end-to-end processes, and eTOM standardizes process element decompositions, information-mapping views will appear to be complex and of little use. The reason that so many ITIL process steps are shown mapping to one eTOM Process Element is because eTOM is currently only defined to Level 2. When eTOM Level 3 Process Elements are published, a more detailed modelling of ITIL Processes will be possible. Another reason so many ITIL process steps are shown mapping to one eTOM Process Element is because in eTOM a process element (e.g., Customer Interface Management) appears only once in a taxonomy, however, it will appear many times in operational process flow and vice versa.

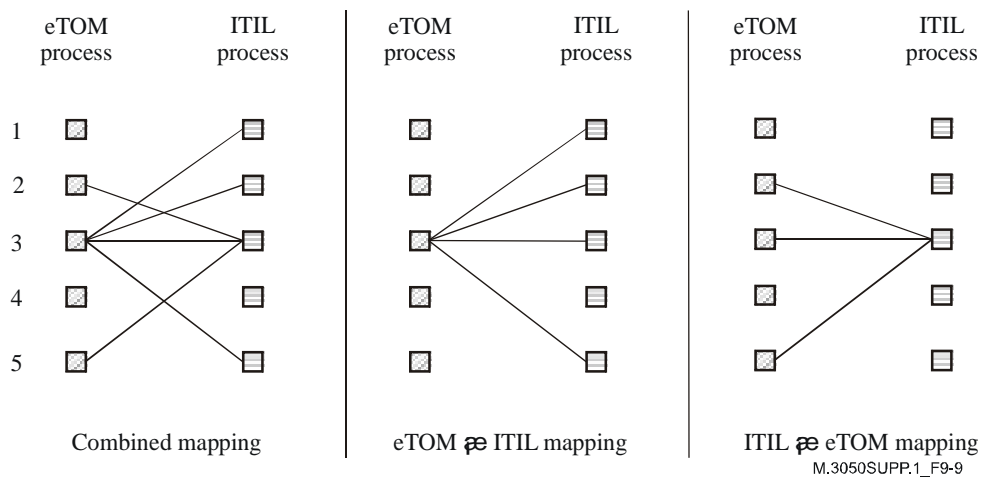
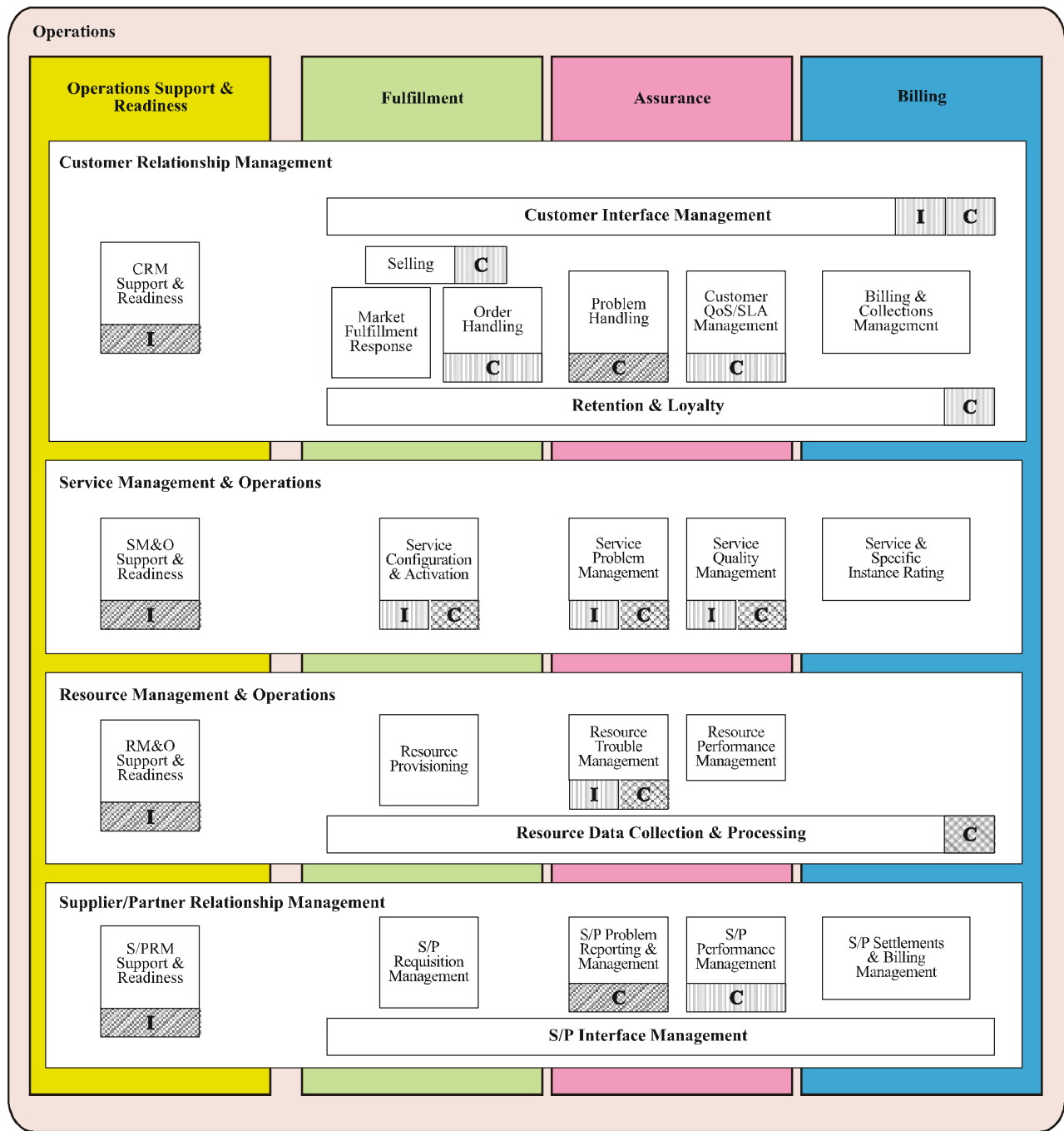


Figure 9-9 – ITIL to eTOM mappings

9.4 Overlay of ITIL to the level 2 eTOM framework

The ITIL Service Support and Service Delivery Processes can be readily overlaid onto the eTOM. Figures 9-10, 9-11 and 9-12 show the eTOM level-2's within the eTOM level-0's of Operations, SIP and Enterprise, that will be used, in building ITIL processes from the Service Support and Service Delivery recommendations. The ITIL processes and functions that have been described are of an equivalent process level to the eTOM level 2 decompositions. One of the limitations in using eTOM in its present form to map ITIL processes, is that in version 4.0, eTOM is only defined down to Level 2, though Operations processes are defined to Level 3. Because ITIL Processes aim to guide detailed implementation, they really need to be mapped using Level 3 Process Elements. Though the ITIL documentation shows some 'decomposed' flows which provide lower level process detail. It is this lower level detail and level 3 eTOM process decompositions that will provide a clearer process overlay between the two frameworks and a better understanding of the modelling of ITIL processes using eTOM process elements.

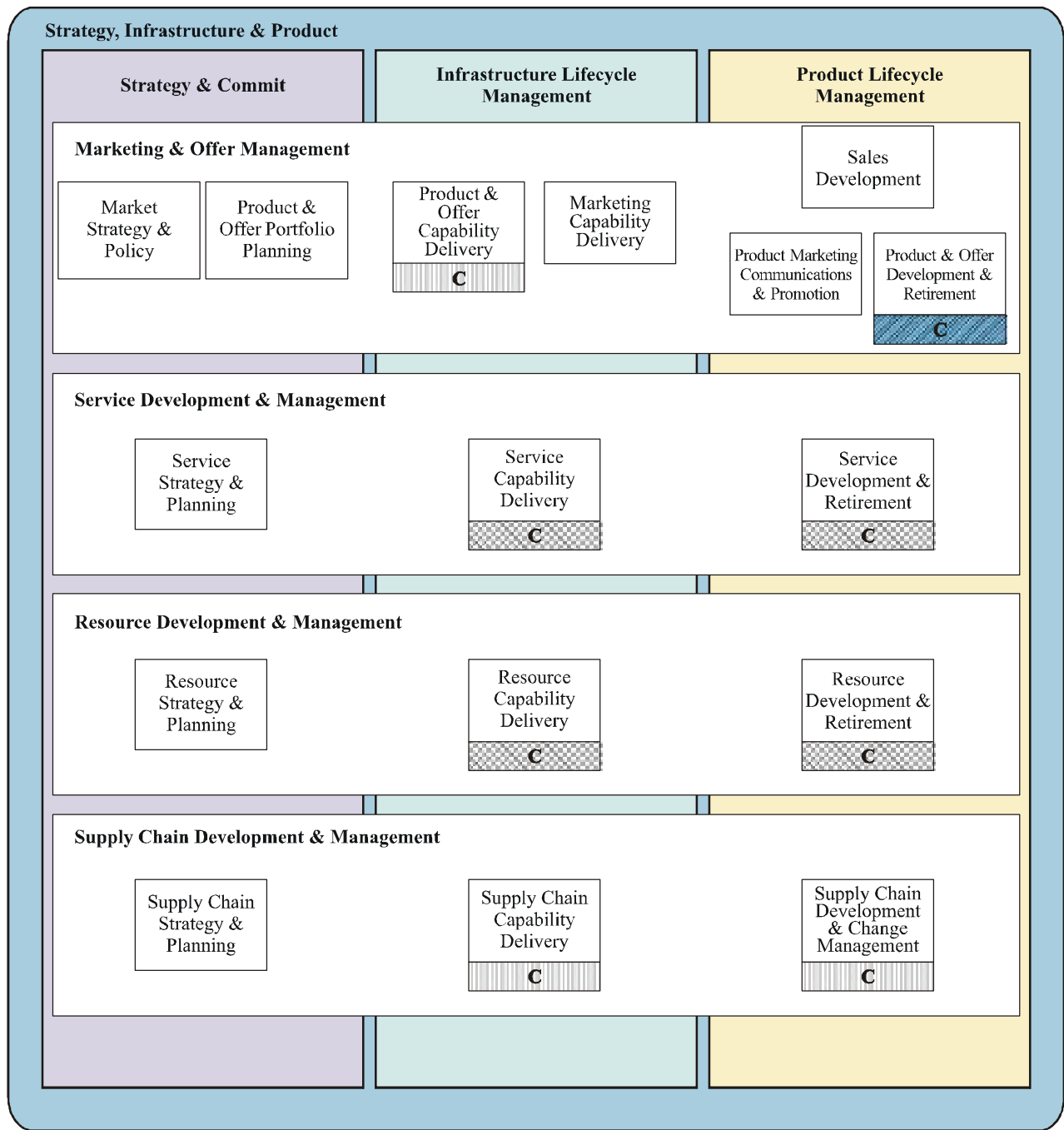
The red shading indicates where ITIL supports the management of internal IT services, while the blue shading indicates where ITIL supports the management of customer services. The type of shading also shows the amount of correlation between the processes at this level.



M.3050SUPP.1_F9-10

- | | |
|--|---|
| I Low correlation of processes of internal IT services | C Low correlation of processes of customer services |
| I Medium correlation of processes of internal IT services | C Medium correlation of processes of customer services |
| I High correlation of processes of internal IT services | C High correlation of processes of customer services |

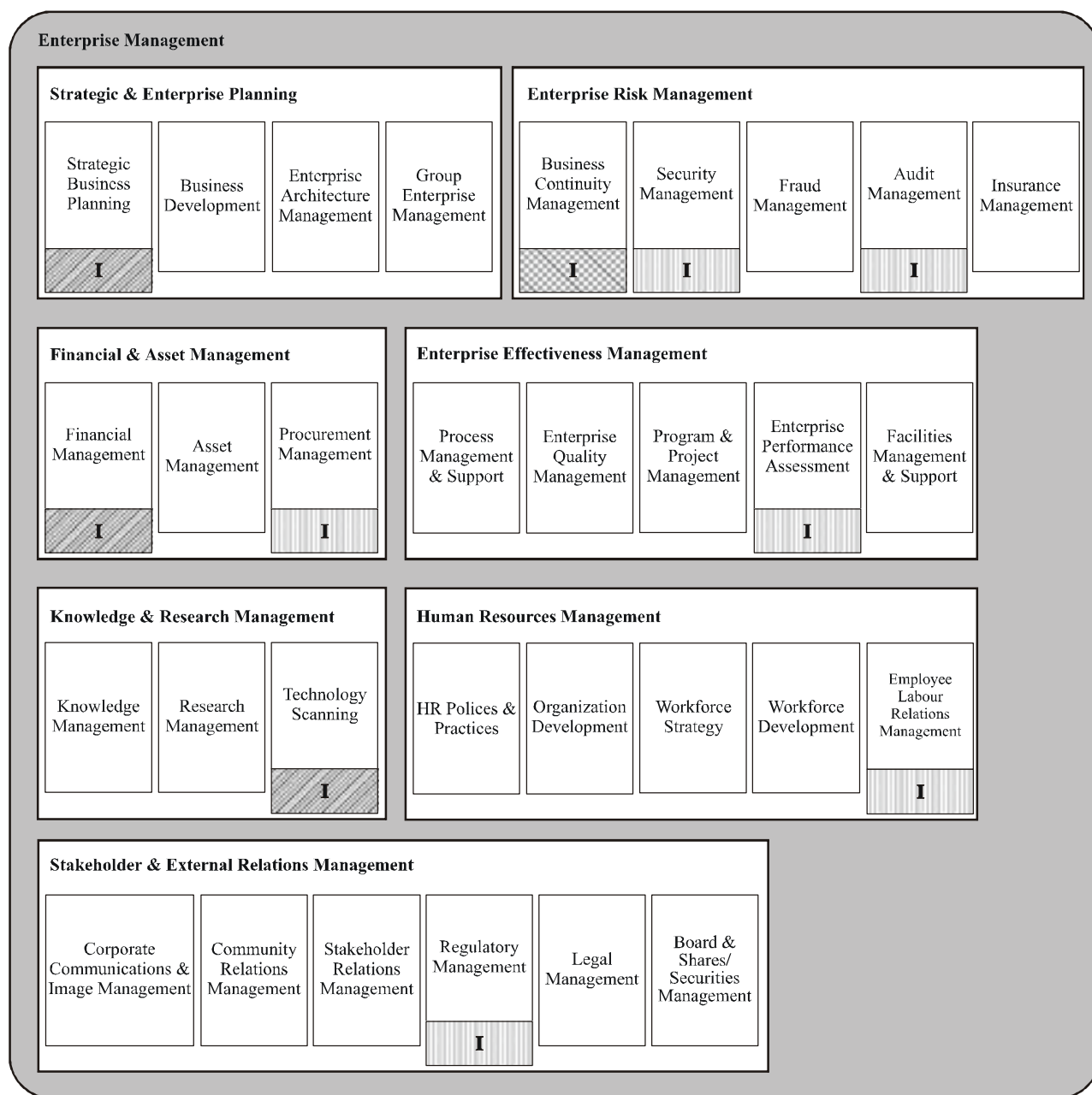
Figure 9-10 – How ITIL processes overlay eTOM operations process elements



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- | | |
|--|---|
| I Low correlation of processes of internal IT services | C Low correlation of processes of customer services |
| I Medium correlation of processes of internal IT services | C Medium correlation of processes of customer services |
| I High correlation of processes of internal IT services | C High correlation of processes of customer services |

Figure 9-11 – How ITIL processes overlay eTOM SIP process elements



M.3050SUPP.1_F9-12

- | | |
|--|---|
| I Low correlation of processes of internal IT services | C Low correlation of processes of customer services |
| I Medium correlation of processes of internal IT services | C Medium correlation of processes of customer services |
| I High correlation of processes of internal IT services | C High correlation of processes of customer services |

Figure 9-12 – How ITIL processes overlay eTOM enterprise process elements

9.5 Detailed overlay of ITIL processes with eTOM level 2 processes

Table 9-1, a textual description of Figures 9-10, 9-11 and 9-12, shows the eTOM level 2 processes and the ITIL processes that overlay them with an explanation of how ITIL process supports eTOM processes. This provides a further indication of how the ITIL processes can be constructed from eTOM process elements.

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

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 Desk	Customer Interface Management Customer QoS/SLA Management Resource Data Collection and Processing CRM Capability Delivery Enterprise Performance Management Employee and Labour Relations Management	<ul style="list-style-type: none"> • The Service Desk is the only function within ITIL and acts as the first point of contact for the Customer/Users and as well as their interface to all the other ITIL processes • Inform Customer/Users of the Service Level Agreements (SLAs), Operational Level Agreements (OLAs) in place • Monitor usage of the Support Services, provide appropriate metrics (call logs, incident records, RFCs raised, Service Requests, etc.) • Act as first point of contact for Customers and Users; gather data on Customer/User perception of Service Quality 	<ul style="list-style-type: none"> • Monitor usage of the Support Services, provide appropriate metrics (call logs, incident records, RFCs raised, Service Requests, etc.) • Ensure that the Service Desk meets the requirements of the Customer as defined in the SLA or OLA • ITIL covers some of the softer issues with regard to workplace environment, etc.

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

ITIL Function/Process	eTOM level 2 process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
Incident Management	Order Handling Problem Handling Service Problem Management Resource Trouble Management RM&O Support and Readiness S/P Problem Reporting and Management	<ul style="list-style-type: none"> • Incident Management also handles Service Requests (Requests for Change (RFCs), enquires, etc.) • Incident Management Process Steps: <ul style="list-style-type: none"> ⇒ Classification and Initial Support ⇒ Classification of Problem (Hardware, Software, Network, etc.) ⇒ Investigation and diagnosis ⇒ Resolution and Recovery • Escalation, either internally or externally and either functional or hierarchical, of Incident to Problem Management or other 2nd, 3rd or nth line support organization 	
Problem Management	Service Problem Management Resource Trouble Management RM&O Support and Readiness S/P Problem Reporting and Management	<ul style="list-style-type: none"> • Problem Management Process Steps: <ul style="list-style-type: none"> ⇒ 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 organization 	

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

ITIL Function/Process	eTOM level 2 process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
Configuration Management	Service Configuration and Activation Regulatory Management Audit Management	<ul style="list-style-type: none"> • Maintain the Configuration Management Database so all assets are known and their relationship between each other 	<ul style="list-style-type: none"> • 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
Change Management	Service Configuration and Activation RM&O Support and Readiness Product and Offer Development and Retirement Resource Development and Retirement Supply Chain Development and Change Management	<ul style="list-style-type: none"> • Manage changes that occur and inform the Configuration Manager of any changes made • Acceptance of the RFC, Authorization and Planning of the Change required for the Resolution of Services 	<ul style="list-style-type: none"> • 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
Release Management	Service Configuration and Activation RM&O Support and Readiness Product and Offer Development and Retirement Service Development and Retirement Resource Development and Retirement Supply Chain Development and Change Management Procurement Management	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Policy, Planning and Development of changes to IT Services/infrastructure • Define policy, purchase, test and accept any COTS or bespoke IT hardware or software

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

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 Level Management	CRM, SM&O, RM&O and S/PRM Support and Readiness Selling Customer QoS/SLA Management Retention and Loyalty Service Quality Management S/P Performance Management Product Marketing Communications & Promotion Service Capability Delivery Resource Capability Delivery Supply Chain Capability Delivery Supply Chain Development and Change Management Strategic Business Planning Technology Scanning Audit Management Enterprise Performance Assessment	<ul style="list-style-type: none"> • 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 analyse if 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 	<ul style="list-style-type: none"> • 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

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

ITIL Function/Process	eTOM level 2 process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
Capacity Management	Service Quality Management Resource Data Collection and Processing Product & Offer Development and Retirement Service Capability Delivery Service Development and Retirement Resource Capability Delivery Resource Development and Retirement Strategic Business Planning Technology Scanning Enterprise Performance Assessment	<ul style="list-style-type: none"> • Model, monitor and analyse Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements • Technology watch, introduction of new technology to offer new, different and improved Services (Service Quality, Availability, Capacity, and Continuity) 	<ul style="list-style-type: none"> • Model, monitor and analyse Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements • Ensure that the Service Desk meets the requirements of the Customer as defined in the SLA or OLA (resourcing both people and equipment) • Technology watch, introduction of new technology to offer new, different and improved Services (Service Quality, Availability, Capacity, and Continuity)
Availability Management	Service Quality Management Resource Data Collection and Processing Service Capability Delivery Resource Capability Delivery Technology Scanning Security Management Enterprise Performance Assessment	<ul style="list-style-type: none"> • Model, monitor and analyse Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements 	<ul style="list-style-type: none"> • Model, monitor and analyse Service/Resource performance to ensure that capacity is sufficient to meet Business needs and SLA or OLA requirements • Responsible for the implementation of the Security Policy

Table 9-1 – Detailed overlay of ITIL processes with eTOM level 2 processes

ITIL Function/Process	eTOM level 2 process	How ITIL supports the management of customer services	How ITIL supports the management of internal IT services
IT Service Continuity Management	Regulatory Management Business Continuity Management		<ul style="list-style-type: none"> • Compliance with any legal requirement as regards IT Service Continuity • The IT Service Continuity Plan forms part of the Business Continuity Plan
Financial Management for IT Services	CRM, SM&O, RM&O and S/PRM Support and Readiness Billing and Collections Management Financial Management	<ul style="list-style-type: none"> • Collect monies for the use of the IT Service as per the Charging model/SLA or OLA 	<ul style="list-style-type: none"> • Budget, Account (develop Cost Model) and charge

Appendix I

Terms and abbreviations used within this Supplement

I.1 Terminology

Table I.1 – Terminology

Term	Definition	TMF or outside source
Incident	An event which is not part of the standard operation of a service and which causes or may cause disruption or a reduction in the quality of services and Customer productivity.	ITIL Service Delivery Guidance
Problem	The unknown root cause of one or more existing or potential Incidents.	ITIL Service Delivery Guidance

I.2 Abbreviations and acronyms

Table I.2 – Abbreviations and acronyms

Abbreviation/ Acronym	Abbreviation/Acronym spelled out	Definition	TMF or external source
ITIL	Information Technology Infrastructure Library	<i>De facto</i> standard on best practice for IT Service Management	
OGC	Office of Government Commerce	Department of UK Government whose previous incarnation developed the ITIL guidelines	<<Source>>
ItSMF	IT Service Management Forum	Organization, similar in nature to the TeleManagement Forum, who works with the OGC in the development and promotion of ITIL	

Appendix II

References

II.1 References

Table II.1 – References

Reference	Description	Brief use summary
Project Charter	eTOM Team	
TMF Glossary	TMF Glossary made available to public and members Version <<#>>	
TOM	TMF Telecom Operations Map: A high-level view of end-to-end service fulfilment, service assurance and billing, TMF-GB910, TMF, Morristown, 1998	
TMF Project Management, Process and Methodology Documents	TMF Team Leader Handbook, TMF Process Guides, TMF Templates, TMF Template Guides, TMF Modeling Methodology Manual	
ITIL Service Delivery Guidance	Guidance on the ITIL Service Delivery Processes which, with Service Support Processes, form the basis of IT Service Management	
ITIL Service Support Guidance	Guidance on the ITIL Service Support Processes which, with Service Delivery Processes, form the basis of IT Service Management	

BIBLIOGRAPHY

[GB921] TMF, GB921, Version 4.0 – eTOM – The Business Process Framework.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communications
Series Y	Global information infrastructure, Internet protocol aspects and Next Generation Networks
Series Z	Languages and general software aspects for telecommunication systems