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TELEPHONE CIRCUITS, TELEGRAPHY, FACSIMILE
AND LEASED CIRCUITS

Telecommunications management network

Enhanced Telecom Operations Map (eTOM) – Process decompositions and descriptions

ITU-T Recommendation M.3050.2

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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 Recommendation provides further detail concerning the eTOM through definition of the process elements within the eTOM Business Process Framework, at several levels of detail.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

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.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

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Enhanced Telecom Operations Map (eTOM) – Process decompositions and descriptions

1 Scope

The Enhanced Telecoms 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 TM Forum retains the 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 Recommendation 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 Recommendation provides further detail concerning the eTOM through definition of the process elements within the eTOM Business Process Framework, at several levels of detail. It should be read in conjunction with ITU-T Rec. M.3050.1 and other parts of this series of ITU-T Recs M.3050.x.

2 References

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

– ITU-T 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

Abbreviations used in this Recommendation are defined in ITU-T Rec. M.3050.1.

5 Conventions

It is convenient to illustrate all the Level 1 processes within eTOM in a single diagram, as in the main document (GB921 v4.0). To extend this diagram to show all the Level 2 processes within each Level 1 process grouping is possible, but is too graphically complex a picture to be used directly. Once Level 3 processes are included, a single diagram becomes quite impractical. In this Recommendation, each Level 1 process grouping is therefore shown in isolation, with its dependant Level 2 processes, and where available, Level 3 processes. It is to be understood that the aggregation of all these Level 2 processes, within the overall eTOM structure, represents the totality of the Level 2 processes within the eTOM. Similarly, the aggregation of all component Level 3 processes, within their "parent" Level 2 process, represents the totality of that Level 2 process, and this pattern is repeated as further levels of decomposition are exposed.

Note that the process decomposition diagrams used in this Recommendation can include black dots within some of the process boxes. These are not a graphical error, but are inserted automatically by a process-modelling tool, to indicate that a further decomposition of that process has been made in the tool.

To aid understanding, each Level 2 and Level 3 process described here has an associated indication of its positioning within the particular vertical and horizontal Level 1 process with which it is associated. For example, CRM Operations Support & Process Management (shown under Customer Relationship Management Level 2 Process Descriptions, below) has the indication (CRM-OSR) to indicate it is within the horizontal Customer Relationship Management process, and the vertical Operations Support & Readiness process.

Processes have been given a process ID throughout this Recommendation. The format of the numbering scheme works as follows:

aaaaaa.b.XXXX.c.d.e where:

- aaaaaa: This will represent a company specific number. The eTOM team recognizes the need for a company specific identifier but has not yet decided upon one specific format (this is for further study). This field is used to prefix the process ID so that individual companies may extend and/or change the processes; and identify the changes with a company specific identifier.

- b: This digit is used to identify the originator of the process. It is set to 1 if the process is the TMF original one, to 2 otherwise.

- XXXX: These letters (up to 4 letters) are used to identify Level 1 vertical end-to-end processes in the Operations and Strategy, Infrastructure & Product areas, or the Enterprise Management area. They are set as follows:
    - S for Strategy & Commit;
    - I for Infrastructure LifeCycle Management;
    - P for Product LifeCycle Management;
    - O for Operations Support & Readiness;
    - F for Fulfilment;

–   A for Assurance;

–   B for Billing;

–   E for Enterprise Management.

Note that for processes spanning on more than one vertical process, the combination of letters representing those vertical processes is used. (Example "Customer Interface Management" uses FAB).

•   c: Digit representing Level 1 process;

•   d: Digit representing Level 2 process;

•   e: Digit representing Level 3 process.

Clauses have been numbered throughout this Recommendation to assist in locating individual processes.

6   Introduction

In ITU-T Rec. M.3050.1, the overall eTOM Business Process Framework was described. In addition, brief descriptions of the Level 1 process groupings of the eTOM Business Process Framework were provided. This Recommendation provides the Level 2 decompositions and descriptions for each of these high-level process groupings. Each horizontal and vertical Level 1 process grouping is shown with its constituent Level 2 processes, and brief process descriptions are provided for Level 2 processes in each of the major process areas: Operations (OPS), Strategy, Infrastructure & Product (SIP) and Enterprise Management.

This Recommendation is organized using the horizontal functional process groupings as the prime categorization for the SIP and OPS process areas. The Enterprise process groupings are considered individually.

In addition, Level 3 decompositions and descriptions are provided for Level 2 processes within the OPS (Operations) area of eTOM. The processes that have been decomposed are those within the CRM (Customer Relationship Management), the SM&O (Service Management and Operations), RM&O (Resource Management and Operations) and S/PRM (Supplier/Partner Relationship Management) Level 1 process areas.

In the eTOM release Version 3.6, a tentative structure was proposed for Operations Support & Readiness (OSR) vertical end-end process grouping within the Operations process area, and several processes from OSR had been redistributed in the Enterprise Management area. In this release, after further analysis and comment, the Enterprise Management area processes and the Strategy, Infrastructure & Product (SIP) area processes have been revised and reorganized.

7   Operations Level 2 process decompositions

7.1   Customer Relationship Management (CRM) processes

Customer Relationship Management (CRM): This horizontal functional process grouping considers the fundamental knowledge of customers' needs and includes all functionalities necessary for the acquisition, enhancement and retention of a relationship with a customer. It is about customer service and support, whether storefront, telephone, web or field service. It is also about retention management, cross-selling, up-selling and direct marketing for the purpose of selling to customers. CRM also includes the collection of customer information and its application to personalize, customize and integrate delivery of service to a customer, as well as to identify opportunities for increasing the value of the customer to the enterprise.

CRM applies to both conventional retail customer interactions, as well as to wholesale interactions, such as when an enterprise is selling to another enterprise that is acting as the 'retailer'.
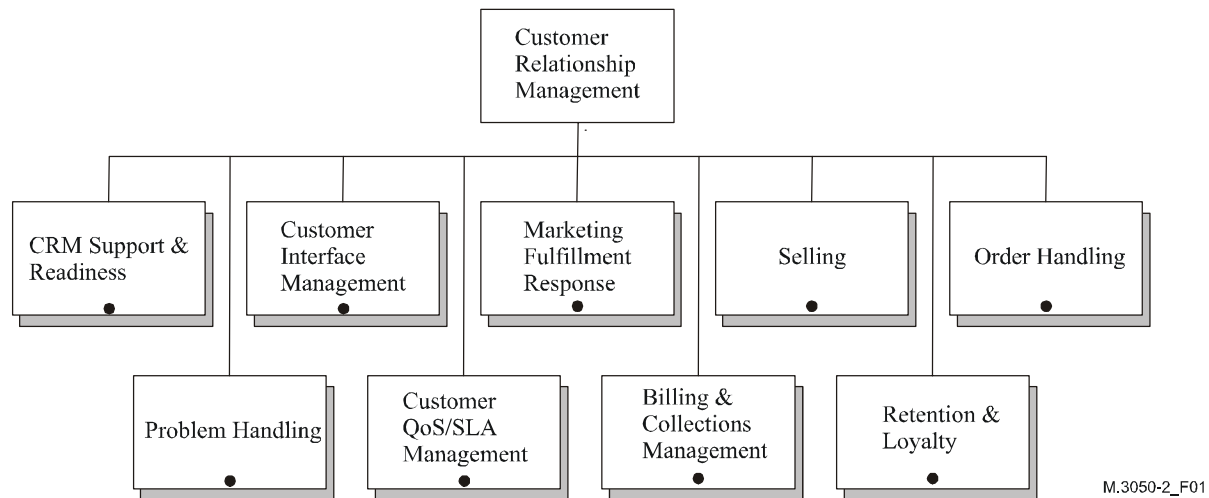

Figure 1/M.3050.2 – Customer Relationship Management decomposition into Level 2 processes

7.1.1 CRM Support & Readiness (CRM-OSR)

CRM Support & Readiness processes manage classes of products, ensuring that all CRM processes in Fulfilment, Assurance and Billing are supported and able to manage interactions with customers promptly and efficiently. They undertake longer-term trend analysis on product classes in order to establish the extent to which enterprise targets for these product classes are being achieved.

These processes support the operational introduction of new product classes and of additional features and enhancements to existing product classes, and are responsible for conducting operations readiness testing and acceptance. They develop the procedures for the specific Fulfilment, Assurance and Billing processes and keep them up to date. After successful testing, these processes accept the new or enhanced product class and perform a full-scale introduction for general availability.

7.1.2 Customer Interface Management (CRM – FAB)

Customer Interface Management processes are responsible for managing all interfaces between the enterprise and potential and existing customers. They deal with contact management, understanding the reason for contact, directing customer contacts to the appropriate process, contact closure, exception management, contact results analysis and reporting. CRM contact may be related to one or several processes of Service Fulfilment, Service Assurance (service quality management and trouble or problem management) and Billing depending on customer enquiries or contacts.

NOTE – Ongoing work on process support for Business-to-Business interaction may result in some changes to processes that are involved in, or link with, such interactions. Specifically, the Customer Relationship Management (CRM), the Supply Chain Development and Management and the Supplier/Partner Relationship Management (S/PRM) process groupings are likely to be impacted. This work is being examined in a separate Application Note, GB921B, and where there is impact on existing process descriptions or structure, this will be reflected in a future eTOM release as appropriate.

7.1.3 Marketing Fulfilment Response (CRM – F)
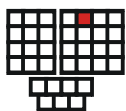
Marketing Fulfilment Response processes are responsible for the issue and distribution of marketing collateral (i.e., coupon, premium, sample, toys, fliers, etc.) directly to a customer and the subsequent tracking of resultant leads. These processes include campaign management activities from lead generation to product and literature fulfilment, and hand-off of leads to the selling processes.

7.1.4 Selling (CRM – F)
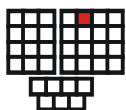
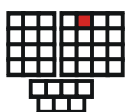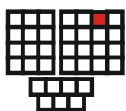Selling processes are responsible for managing prospective customers, for the qualification and education of the customer and for matching customer expectations to the enterprise's products and services and ability to deliver. These processes also manage the response to customer RFPs.

7.1.5 Order Handling (CRM – F)

Order Handling processes are responsible for accepting and issuing orders. They deal with pre-order feasibility determination, credit authorization, order issuance, order status and tracking, customer update on order activities and customer notification on order completion.

7.1.6 Problem Handling (CRM – A)

Problem Handling processes are responsible for receiving trouble reports from customers, resolving them to the customer's satisfaction and providing meaningful status on repair and/or restoration activity to the customer. They are also responsible for customer contact and support in relation to any service-affecting problems detected by the resources or through analysis, including proactively informing the customer and resolving these specific problems to the customer's satisfaction.

7.1.7 Customer QoS/SLA Management (CRM – A)
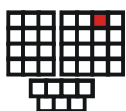
Customer QoS/SLA Management processes encompass monitoring, managing and reporting of delivered vs contractual Quality of Service (QoS), as defined in the enterprise's Service Descriptions, customer contracts or product catalogue. They are also concerned with the performance of the enterprise and its products and services in relation to its Service Level Agreements (SLAs) for specific product instances, and other service-related documents. They include operational parameters such as resource performance and availability, but also encompass performance across all of a product's contractual or regulatory parameters, e.g., % Completion on Time for Order Requests, time to repair commitments, customer contact performance. Failure to meet a contracted SLA may lead to billing adjustments, which are handled by Billing and Collections Management.

7.1.8 Billing & Collections Management (CRM – B)
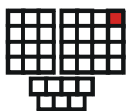
Billing & Collections Management processes encompass creating and maintaining a customer's billing account, sending bills to customers, processing their payments, performing payment collections, monitoring the status of the account balance, and the handling of customer generated or systems reported billing and payment exceptions. These processes are accountable for assuring that enterprise revenue is billed and collected.

7.1.9 Retention & Loyalty (CRM – FAB)
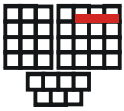
Retention & Loyalty processes deal with all functionalities related to the retention of acquired customers, and the use of loyalty schemes in the potential acquisition of customers. They establish a complete understanding of the needs of the customer, a determination of the value of the customer to the enterprise, determination of opportunities and risks for specific customers, etc. These processes collect and analyse data from all enterprise and customer contact.
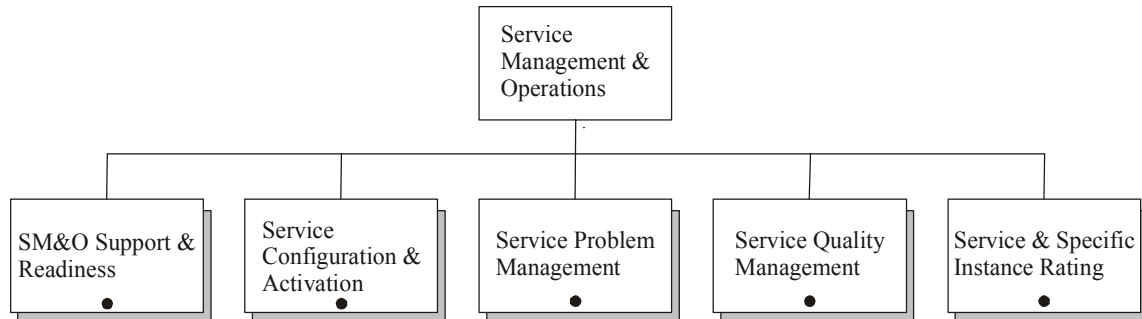
7.2 Service Management & Operations (SM&O) Processes
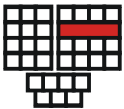
Service Management & Operations (SM&O): This horizontal functional process grouping focuses on the knowledge of services (Access, Connectivity, Content, etc.) and includes all functionalities necessary for the management and operations of communications and information services required by or proposed to customers. The focus is on service delivery and management as opposed to the management of the underlying network and information technology. Some of the functions involve short-term service capacity planning for a service instance, the application of a service design to specific customers or managing service improvement initiatives. These functions are closely connected with the day-to-day customer experience.

The processes in this horizontal functional process grouping are accountable to meet, at a minimum, targets set for Service Quality, including process performance and customer satisfaction at a service level, as well as Service Cost.

The eTOM framework differentiates day-to-day operations and support from planning and development and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.

Figure 2/M.3050.2 – Service Management & Operations decomposition into Level 2 processes

7.2.1 SM&O Support & Readiness (SM&O – OSR)
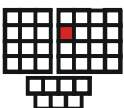
SM&O Support & Readiness processes manage classes of services, ensuring that the appropriate service capacity is available and ready to support the Fulfilment, Assurance and Billing processes in instantiating and managing service instances. This includes but is not limited to:

- Managing the Service Inventory;
- Applying service capacity rules from Infrastructure Lifecycle Management processes;
- Analysing availability and quality over time on service classes, including trend analysis and forecasting;
- Demand balancing in order to maintain service capacity and quality;

- Maintaining rating and tariff information for service classes.

These processes support the operational introduction of new service classes and the enhancement of existing ones and are responsible for conducting operations readiness testing and acceptance. They develop the procedures for the specific Fulfilment, Assurance and Billing processes and keep them up to date. After successful testing, these processes accept the new or enhanced service class and perform a full-scale introduction for general availability.

7.2.2 Service Configuration & Activation (SM&O – F)
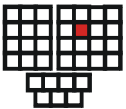
Service Configuration & Activation processes encompass the installation and configuration of the service for customers, including the installation of customer premises equipment. They also support the reconfiguration of the service (either due to customer demand or problem resolution) after the initial service installation. This can include modifying capacity and reconfiguring in response to requests from other providers.

7.2.3 Service Problem Management (SM&O – A)

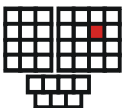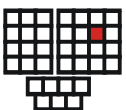The purpose of the Service Problem Management processes is to respond immediately to customer-affecting service problems or failures in order to minimize their effects on customers, and to invoke the restoration of the service, or provide an alternate service as soon as possible. They encompass the reporting of problems, making a temporary fix or work-around, isolating the root cause and finally recovering the complete functionality of the service and providing information for future enhancements.

7.2.4 Service Quality Management (SM&O – A)

The purpose of the Service Quality Management processes encompasses monitoring, analysing and controlling the performance of the service perceived by customers. These processes are responsible for restoring the service performance for customers to a level specified in the SLA or other service KQI descriptions as soon as possible.

7.2.5 Service & Specific Instance Rating (SM&O – B)
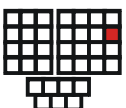
Service & Specific Instance Rating processes manage service events by correlating and formatting them into a useful format. These processes include the service level rating of usage information. Investigation of service related billing event problems is also part of these processes. These processes provide information on customer-related and Service-related events to other process areas. This includes reports on non-chargeable Events and overcharged Events and analysis of Event records to identify fraud and prevent further occurrences.

7.3 Resource Management & Operations (RM&O) Processes
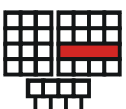
Resource Management & Operations (RM&O): This horizontal functional process grouping maintains knowledge of resources (application, computing and network infrastructures) and is responsible for managing all these resources (e.g., networks, IT systems, servers, routers, etc.) utilized to deliver and support services required by or proposed to customers. It also includes all functionalities responsible for the direct management of all such resources (network elements, computers, servers, etc.) utilized within the enterprise. These processes are responsible for ensuring that the network and information technologies infrastructure supports the end-to-end delivery of the required services. The purpose of these processes is to ensure that infrastructure runs smoothly, is accessible to services and employees, is maintained and is responsive to the needs, whether directly or indirectly, of services, customers and employees. RM&O also has

the basic function to assemble information about the resources (e.g., from network elements and/or element management systems), and then integrate, correlate, and in many cases, summarize that data to pass on the relevant information to Service Management systems, or to take action in the appropriate resource.

In an e-business world, application and computing management are as important as management of the network resources. Moreover, network, computing and applications resources must increasingly be managed in a joint and integrated fashion. To cope with these needs, the eTOM framework includes the Resource Management & Operations process grouping (together with the corresponding Resource Development & Management grouping within SIP), to provide integrated management across these three sets of resources: applications, computing and network. These areas also encompass processes involved with traditional Network Element Management, since these processes are actually critical components of any resource management process, as opposed to a separate process layer.

The RM&O processes thus manage the complete service provider network and sub-network and information technology infrastructures.

The eTOM framework differentiates day-to-day operations and support from planning and development, and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.

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**Figure 3/M.3050.2 – Resource Management & Operations
decomposition into Level 2 processes**

7.3.1 RM&O Support & Readiness (RM&O – OSR)
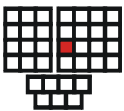
RM&O Support & Readiness processes manage classes of resources, ensuring that appropriate application, computing and network resources are available and ready to support the Fulfilment, Assurance and Billing processes in instantiating and managing resource instances. This includes, but is not limited to:

•   Managing the Resource Knowledge base;

•   Configuring the resources and provisioning of logical resources to be able to support specific service classes;

•   Analysing availability and performance over time on resources or groups of resources, including trend analysis and forecasting;

•   Demand balancing in order to maintain resource capacity and performance;

•   Performing pro-active maintenance and repair activities.

These processes support the operational introduction of new resource classes and the enhancement of existing ones and are responsible for conducting operations readiness testing and acceptance. They develop the procedures for the specific Fulfilment,

Assurance and Billing processes and keep them up to date. After successful testing, these processes accept the new or enhanced resource class and perform a full-scale introduction for general availability.

7.3.2 Resource Provisioning (RM&O – F)
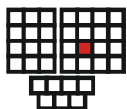
Resource Provisioning processes encompass allocation and configuration of resources to individual customer service instances in order to meet the service requirements. This includes activation as well as testing to ensure the expected performance of the service.

Responsibilities of the Resource Provisioning processes include, but are not limited to:

•   Verifying whether appropriate resources are available as part of pre-order feasibility checks;

•   Allocating the appropriate resources to support the customer service instance;

•   Reserving the resources (if required by the business rules) for a given period of time until the customer confirms the order;

•   Possibly delivering the physical resource to the central office or customer premise;

•   Configuring and activating physical and/or logical resources, as appropriate;

•   Testing the resource to ensure the resource is working correctly and meets the performance requirements implied by the service's Key Quality Indicators;

•   Updating of the Resource Inventory Database to reflect that the resource is being used for a specific customer.

7.3.3 Resource Trouble Management (RM&O – A)
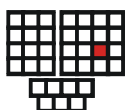
Resource Trouble Management processes are responsible for the management of troubles with allocated resources. The objectives of these processes are to report resource failures, to isolate the root cause and act to resolve them.

Responsibilities of the Resource Trouble Management processes include, but are not limited to:

•   Detect, analyse and report Resource Failure Events;

•   Fault localization analysis;

•   Correcting Resource Faults;

•   Resource trouble reporting to amongst others Service Problem Management processes;

•   Resource trouble administration to ensure repair activities are assigned and tracked efficiently.

On one hand, resource troubles relate to Problems in the Service and hence the customer domain. On the other hand, they relate to resource failures, which are caused by resource faults.

As such, the Resource Trouble Management processes work with resource failure events received from Resource Data Collection & Processing, resource quality problem notifications from Resource Performance Management, and potential resource failure notifications from Support Resource Trouble Management.

Resource Trouble Management processes perform analysis, decide on the appropriate actions/responses and carry them out. However, these activities need to interact with the Service Problem Management processes, as the latter have a view on service impact.

7.3.4 Resource Performance Management (RM&O – A)
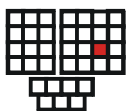
Resource Performance Management processes encompass monitoring, analysing, controlling and reporting on the performance of resources. They work with basic information received from the Resource Data Collection & Processing processes.

If the analysis identifies a resource quality problem, information will be passed to Resource Trouble Management and/or Service Quality Management. The latter processes are responsible for deciding on and carrying out the appropriate action/response. This may include requests to the Resource Performance Management processes to install controls to optimize the resource performance.

The Resource Performance Management processes will continue to track the resource performance problem, ensuring that resource performance is restored to a level required to support services.

Depending on the resource class, the Resource Performance Management processes might send an abatement message to Resource Trouble Management once the resource performance problem has been cleared.

7.3.5 Resource Data Collection & Processing (RM&O – AB)
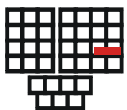
Resource Data Collection & Processing processes interact with the resources to collect usage, network and information technology events and performance information for distribution to other processes within the enterprise. The responsibilities also include processing the data through activities such as filtering, aggregation, formatting and correlation of the collected information before presentation to other processes. Client processes for this information perform usage reporting and billing activities, as well as Fault and Performance analysis of resources and services. These include Resource Performance Management, Service Quality Management and Service & Specific Instance Rating.

7.4 Supplier/Partner Relationship Management (S/PRM) processes

Supplier/Partner Relationship Management (S/PRM): This horizontal functional process grouping supports the core operational processes, both the customer instance processes of Fulfilment, Assurance and Billing and the functional operations processes. Supplier/Partner Relationship Management (S/PRM) processes align closely with a supplier's or partner's Customer Relationship Management processes. The inclusion of distinct Supplier/Partner Relationship Management processes in the eTOM framework enables the direct interface with the appropriate lifecycle, end-to-end customer operations or functional processes with suppliers and/or partners. The processes include issuing RFPs as part of the buy process, issuing purchase orders and tracking them through to delivery, mediation of purchase orders as required to conform to external processes, handling problems, validating billing and authorizing payment, as well as quality management of suppliers and partners.

It is important to note that when the enterprise sells its products to a partner or supplier, this is done through the enterprise CRM processes, which act on behalf of the supplier or the enterprise in such cases. Supplier/Partner processes only cover the buying of services by the enterprise.
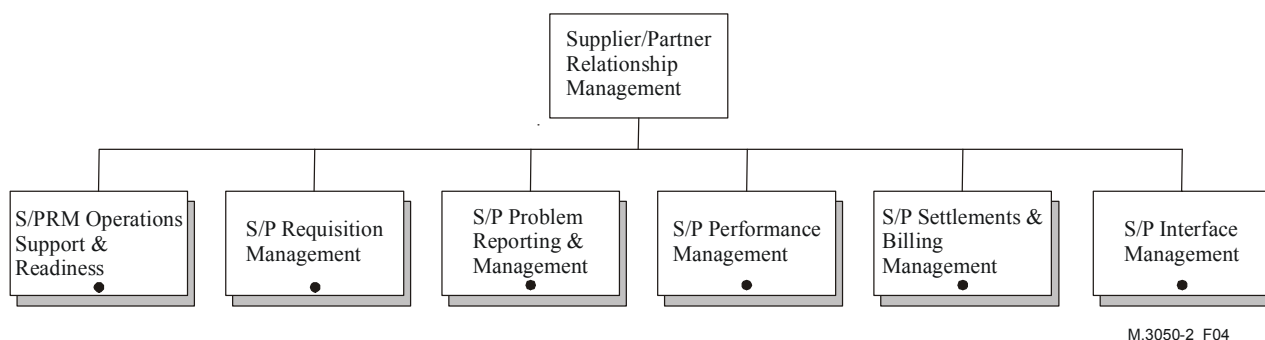
M.3050-2_F04

**Figure 4/M.3050.2 – Supplier/Partner Relationship Management
decomposition into Level 2 processes**

NOTE – Ongoing work on process support for Business-to-Business interaction may result in some changes to processes that are involved in, or link with, such interactions. Specifically the Customer Relationship Management (CRM), the Supplier Chain Development Management, the Supplier/Partner Relationship Management (S/PRM) process groupings are likely to be impacted. This work is being examined in a separate Application Note, GB921B, and where there is impact on existing process descriptions or structure, this will be reflected in a future eTOM release as appropriate.

7.4.1 S/PRM Support & Readiness (S/PRM – OSR)
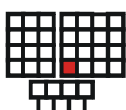
S/PRM Support & Readiness processes are responsible for ensuring that all necessary facilities related to the interaction with Suppliers and Partners are ready and functioning. Moreover, these processes are responsible for longer-term trend analysis and the resolution of problems related to these facilities.

These processes are also responsible for the operational introduction of S/P products and are responsible for conducting operations readiness testing and acceptance. These processes develop the procedures for the specific Fulfilment, Assurance and Billing processes and keep them up to date. After successful testing, these processes accept the new or enhanced product and perform a full-scale introduction for general availability.

7.4.2 S/P Requisition Management (S/PRM – F)
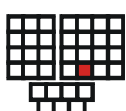
S/P Requisition Management processes manage requisitions with partners/suppliers to ensure on-time and correct delivery of the product or service requested by the enterprise. This process interfaces with supplier's CRM process Order Handling.

Where several suppliers are available, these processes are responsible for selecting between the alternative suppliers with whom a relationship exists. A specification for the service component is received and the range of contracted suppliers surveyed to select the most cost-effective (cost/time trade-off).

7.4.3 S/P Problem Reporting & Management (S/PRM – A)
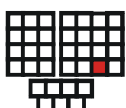
S/P Problem Reporting & Management processes manage problems associated with supplier/partner interactions, whether identified within the enterprise or as notified by the supplier. The processes issue trouble reports or trouble tickets to supplier and partner organizations within the value chain, track them, and ensure timely and correct restoration and repair. These S/P Problem Reporting and Management processes interface with the supplier's CRM process of Problem Handling.

7.4.4 S/P Performance Management (S/PRM – A)
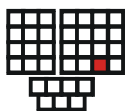
S/P Performance Management processes track, measure and report supplier and partner performance and initiate action with the supplier/partner where this is required to restore performance. These S/P Performance Management processes interface with the supplier's CRM process of Customer QoS/SLA Management.

7.4.5 S/P Settlements & Billing Management (S/PRM – B)
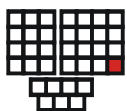
For a value network, and particularly for service providers, settlements and billing management is complex. In many cases, the supplier cost can be the largest single cost and incorrect settlement or billing can mean the difference between profit and loss. S/P Settlements & Billing Management processes manage all settlements and billing for the enterprise, including bill validation and verification and payment authorization. These S/P Settlements and Billing Management processes interface with the supplier's Customer Relationship Management process of Billing and Collection Management.

7.4.6 S/P Interface Management (S/PRM – FAB)

S/P Interface Management processes manage the contacts between the enterprise and its current or future suppliers/partners for products or services. These processes are basically contact management and tracking processes. These S/P Interface Management processes interface with the CRM process of Customer Interface Management.

8 Strategy, infrastructure and product Level 2 process decomposition

8.1 Marketing & Offer Management (M&OM) Processes

Process Identifier: 1.SIP.1

This horizontal functional process grouping focuses on the knowledge of running and developing the core business for an Information & Communications Service Provider enterprise. It includes functionalities necessary for defining strategies, developing new products, managing existing products and implementing marketing and offering strategies especially suitable for information and communications products and services.

Marketing and offer management are well-known business processes, especially in the more competitive e-business environment, where the rate of innovation and brand recognition determine success. Although most companies carry out all these activities, depending upon the size of the company, they are combined in a variety of ways. These processes are enabling processes, but also the key processes that are accountable for commitment to the enterprise for revenue, overall product results and profit and loss. These processes deal with the creation of product, markets and channels; they manage market and product strategies, pricing, sales, channels, new product development (and retirement), marketing communications and promotion.
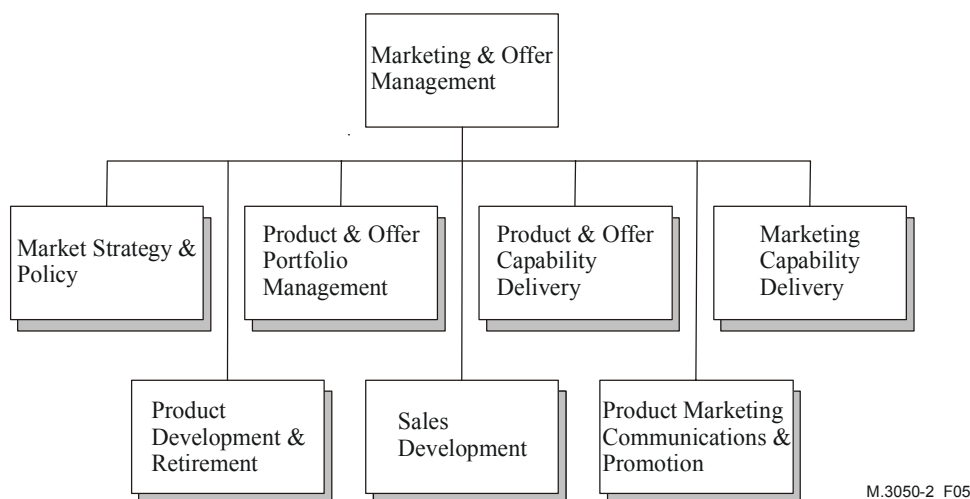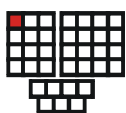
Figure 5/M.3050.2 – Marketing & Offer Management decomposition into Level 2 processes

### 8.1.1 Market Strategy & Policy (M&OM – SC)

Process Identifier: 1.S.1.1

Brief Description: Enable the development of a strategic view of an enterprise's existing and desired marketplace.

Market Strategy & Policy processes enable the development of a strategic view of an enterprise's existing and desired marketplace, activities and aims. Market segmentation and analysis is performed, to determine an enterprise's target and addressable markets, along with the development of marketing strategies for each market segment or set of target customers. The decision is made as to which markets the enterprise wants or needs to be in, and how it plans to enter or grow in these markets and market segments. This will be achieved through multiple inputs: including Enterprise Strategies, Market Research and Market Analysis.

8.1.2 Product & Offer Portfolio Planning (M&OM – SC)
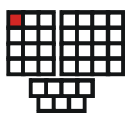
Process Identifier: 1.S.1.2

Brief Description: Develop strategies for products at the portfolio level.

Product & Offer Portfolio Planning processes develop strategies for products at the portfolio level. The decision is made as to which product types the enterprise wants or needs to offer, and how it plans to enter or grow in these sectors. This will be done based on multiple inputs: including Enterprise Strategies, Market Research and Market Analysis.

8.1.3 Product & Offer Capability Delivery (M&OM – ILM)
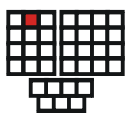
Process Identifier: 1.I.1.3

Brief Description: Manage the delivery and build of new or changed Product & Offer and delivery capabilities within an enterprise.

Based on the Product strategy for the enterprise, the Product & Offer Capability Delivery processes manage the delivery and build of new or changed Product & Offer and delivery capabilities within an enterprise. It also handles their requisite infrastructure, where the technologies, scope or type/depth of infrastructure is significantly different to that currently employed in the enterprise: e.g., introduction of Third-generation Mobile Telephony networks.

8.1.4 Marketing Capability Delivery (M&OM – ILM)
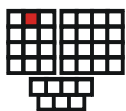
Process Identifier: 1.I.1.4

Brief Description: Manage the delivery and build of new or changed market capabilities or customer-related capabilities.

Based on the market strategy for the enterprise, the Marketing Capability Delivery processes manage the delivery and build of new or changed market capabilities (e.g., on-line channels and sales channels) or customer-related capabilities (e.g., ability to identify, save, manipulate and retrieve and apply new types of knowledge about customers). These capabilities are created and delivered in line with the Market Strategy; for example, one strategy may be to create more on-line channels to allow for customer self-service.

8.1.5 Product & Offer Development & Retirement (M&OM – PLM)

Process Identifier: 1.P.1.5

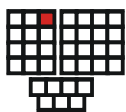Brief Description: Develop and deliver new products or services and product or service enhancements and new features, ready for implementation by the Operations processes.

Product Development & Retirement processes develop and deliver new products or services and product or service enhancements and new features, ready for implementation by the Operations processes. Additionally they handle the withdrawal of product offerings from the marketplace. Product Development and Retirement processes are project oriented (day-to-day management of product offerings are handled by the Operations processes). The key measures of this process are how effectively are the enterprise's products and services broadened and the time to market for new products and services or features. These processes also manage major product and service updates and enhancement. Business Case development tracking and commitment are key elements of this process, as are project management discipline with defined quality gates.

8.1.6 Sales Development (M&OM – PLM)
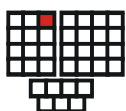
Process Identifier: 1.P.1.6

Brief Description: Develop the Sales support and response for new and existing products and services, as well as existing and potential customers.

Sales Development processes develop the Sales support and response for new and existing products and services, as well as existing and potential customers.

Sales Development processes develop product related compensation plans, define product revenue targets, develop product related sales training, develop prospective customer identification methodology, develop selling processes/methods and procedures for new products.

As an aspect of this, Sales Development processes define channels for selling the enterprise's products. It develops or ensures development of channel ability to sell and support products, including negotiating for the specific channel, defining or updating the account management process, developing pricing for a specific channel, etc.

8.1.7 Product Marketing Communications & Promotion (M&OM – PLM)
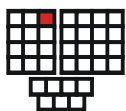
Process Identifier: 1.P.1.7

Brief Description: Develop and manage communications to the market, prospective and existing customers.

Product Marketing Communications & Promotion processes deal with overall communication to customers and markets. Product Marketing Communications processes develop and manage communications to the market, prospective and existing customers. Communications involve both the message and the media. Product Marketing Communications can develop a message and manage its delivery through a bill insert, phone communication with customers, a magazine advertisement, or any other appropriate mechanism. Product Marketing Communications develop and manage interfaces with press/news, e.g., schedules press interviews, manage an editorial calendar to plan placements, etc.

Product Marketing Promotion on the other hand is the development of specific promotions to sell products, retain customers, and bring in new customers. Product Marketing Promotion processes create the promotional campaigns and advertising to reach the market, customers and channels. They develop the campaigns and collateral, whether direct mail, newspaper ad, etc. Product Marketing Promotion processes work with all other processes of Marketing, Sales and Offer, Brand Management, Market Research and Advertising Management to design marketing promotions and advertising, to determine trade show participation and presence, to support product introductions, etc. Product Marketing Promotions processes interface with Customer Relationship Management to execute the campaign. One of the key roles of these processes is to position the product in the market, especially versus competitive products.

8.2 Service Development & Management (SD&M) processes
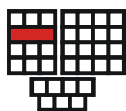
Process Identifier: 1.SIP.2

This horizontal functional process grouping focuses on planning, developing and delivering services to the Operations domain. It includes processes necessary for defining the strategies for service creation and design, managing existing services, and ensuring that capabilities are in place to meet future service demand.
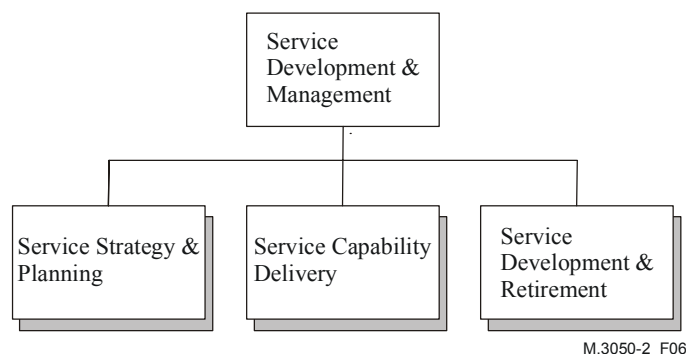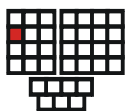

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**Figure 6/M.3050.2 – Service Development & Management
decomposition into Level 2 processes**

8.2.1 Service Strategy & Planning (SD&M – SC)

Process Identifier: 1.S.2.1

Brief Description: Enable the development of a strategic view and a multi-year business plan for the enterprise's services and service directions, and the parties who will supply the required services.

Service Strategy & Planning processes enable the development of a strategic view and a multi-year business plan for the enterprise's services and service directions, and the parties who will supply the required services. Research & analysis is performed to determine service targets as well as strategies to reach the defined targets. This research may be obtained from the external market, or developed internally through research programs and activities, or leverage of other internal knowledge. A key input to the service strategy arises from the enterprise's market and product portfolio strategy and forecasts. A focus is placed on the expansion of the existing service capabilities and the identification of new service capabilities required.

These processes deliver and develop annual and multi-year service plans in support of products and offers that include volume forecasts, negotiation for required levels of resources, gaining service development and management as well as supply chain commitment and executive approval for the plans.

Forecasting of service demand, and capturing of new opportunities, are both essential to ensure that the enterprise can implement the services necessary for the future needs of their customers and potential customers.

These processes define the service standards sought, key new service capabilities required, service support levels and approaches required, service design elements to be developed, as well as service cost parameters and targets. These processes also define the policies relating to technical services and their implementation.

8.2.2 Service Capability Delivery (SD&M – ILM)
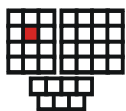
Process Identifier: 1.I.2.2

Brief Description: Plan and deliver the total capabilities required to deliver changes to service.

Service Capability Delivery processes plan and deliver the total capabilities required to deliver changes to service, as necessary. This involves integration of capability delivered from within the enterprise, and capability delivered from a partner/supplier.

Service demand forecasting and capturing of new opportunities are both essential to ensure that the enterprise can implement the services necessary for the future needs of their customers and potential customers.

8.2.3 Service Development & Retirement (SD&M – PLM)
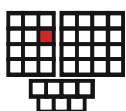
Process Identifier: 1.P.2.3

Brief Description: Develop and deliver new or enhanced service types.

Service Development & Retirement processes are project oriented in that they develop and deliver new or enhanced service types. These processes include process and procedure implementation, systems changes and customer documentation. They also undertake rollout and testing of the service type, capacity management and costing of the service type. Additionally, they handle the withdrawal of services that enterprise no longer offers to customers. They ensure the ability of the enterprise to deliver service types according to requirements.

8.3 Resource Development & Management (RD&M) processes
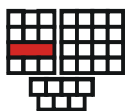
Process Identifier: 1.SIP.3

This horizontal functional process grouping focuses on planning, developing and delivering the resources needed to support services and products to the Operations domain. It includes processes necessary for defining the strategies for development of the network and other physical and non-physical resources, introduction of new technologies and interworking with existing ones, managing of existing resources and ensuring that capabilities are in place to meet future service needs.

Resource
Development &
Management

Resource Strategy
& Planning

Resource
Capability Delivery

Resource
Development &
Retirement

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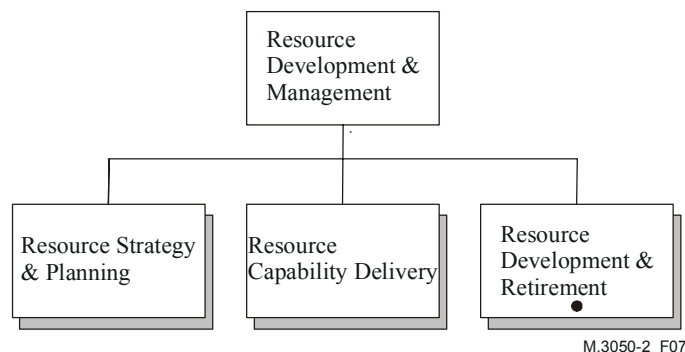
**Figure 7/M.3050.2 – Resource Development & Management
decomposition into Level 2 processes**

8.3.1 Resource Strategy & Planning (RD&M – SC)
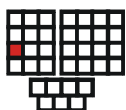
Process Identifier: 1.S.3.1

Brief Description: Develop resource strategies, policies and plans for the enterprise, based on the long-term business, market, product and service directions of the enterprise.

Resource Strategy & Planning processes develop resource strategies, policies and plans for the enterprise, based on the long-term business, market, product and service directions of the enterprise. These processes understand the capabilities of the existing enterprise infrastructure, capture the requirements on the infrastructure based on market, product and service strategies of the enterprise, manage the capabilities of the suppliers and partners to develop and deliver new resource capabilities, and define the way that new or enhanced infrastructure may be deployed.

Research & analysis is performed to determine resource targets as well as strategies to reach the defined targets. This research may be obtained from the external market and resource suppliers and partners, or developed internally through research programs and activities, or leverage of other internal knowledge. A key input to the resource strategy arises from the enterprise's market, product portfolio and service strategy and forecasts. A focus is placed on the expansion of the existing resource capabilities and the identification of new resource capabilities required.

These processes deliver and develop annual and multi-year resource plans in support of services, products and offers that include volume forecasts, negotiation for required levels of resources, gaining resource development and management as well as supply chain commitment and executive approval for the plans.

Forecasting of resource demand, and capturing of new opportunities, are both essential to ensure that the enterprise can construct and implement the resources necessary for the future needs of their customers and potential customers.

These processes define the resource implementation standards sought, key new resource capabilities required, resource support levels and approaches required, resource design elements to be developed, as well as resource cost parameters and targets. These processes also define the policies relating to technical resources and their implementation.

### 8.3.2 Resource Capability Delivery (RD&M – ILM)
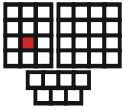
Process Identifier: 1.I.3.2

Brief Description: Use the capability definition or requirements to deploy new and/or enhanced technologies and associated resources.

Resource Capability Delivery processes use the capability definition or requirements to deploy new and/or enhanced technologies and associated resources.

The objective of these processes is to ensure that network, application and computing resources are deployed, according to the plans set by Resource Development. They deliver the physical resource capabilities necessary for the ongoing operations, and long-term well being of the enterprise, and ensure the basis on which all resources and services will be built.

Responsibilities of the Resource Capability Delivery processes include, but are not limited to:

• Planning resource supply logistics (warehousing, transport, etc.);

• Planning the Resource Installation;

• Contracting and Directing the Resource Construction where needed;

• Verifying the Resource Installation;

• Handover the Resource Capability to Operations through interactions with the Manage Resource Class Configuration.

Logical network configurations (such as resource elements integration) are as important to the network resources as the physical aspects. All aspects must be planned and considered in the design and implementation of the network, including infrastructure owned by the enterprise, and by supplier/partners, other physical resources and logical elements.

8.3.3 Resource Development & Retirement (RD&M – PLM)
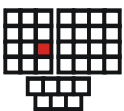
Process Identifier: 1.P.3.3

Brief Description: Develop new, or enhance existing technologies and associated resource types, so that new Products are available to be sold to customers.

Resource Development & Retirement processes develop new, or enhance existing technologies and associated resource types, so that new Products are available to be sold to customers. They use the capability definition or requirements defined by Resource Strategy & Planning. They also decide whether to acquire resources from outside, taking into account the overall business policy in that respect. These processes also retire or remove technology and associated resource types, which are no longer required by the enterprise.

Resource types may be built, or in some cases leased from other SPs or suppliers. To ensure the most efficient and effective solution can be used, negotiations on network level agreements with suppliers or partners are paramount for both building and leasing.

These processes interact strongly with Product and Supply Chain Development processes.

8.4 Supply Chain Development & Management (SCD&M) processes
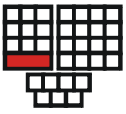
Process Identifier: 1.SIP.4

This horizontal functional process grouping focuses on the interactions required by the enterprise with suppliers and partners, who are involved in maintaining the supply chain. The supply chain is a complex network of relationships that a service provider manages to source and deliver products. In the e-business world, companies are increasingly working together with suppliers and partners (synergistic clusters, coalitions and business ecosystems) in order to broaden the products they offer and improve their productivity. These processes ensure that the best suppliers and partners are chosen as part of the enterprise supply chain. They help to support sourcing decisions made by the enterprise, and ensure that the capabilities are in place for interaction between the enterprise and its suppliers and partners. They ensure that the contribution of suppliers and partners to the supply chain is timely and delivers the required support, and that their overall performance and contribution is as good as or better than for vertically integrated enterprises. These processes include establishing and maintaining all the information flows managing any mediation required, and financial flows between the provider and supplier.

Figure 8/M.3050.2 – Supply Chain Development & Management decomposition into Level 2 processes

8.4.1 Supply Chain Strategy & Planning (SCD&M – SC)
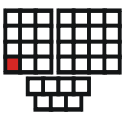
Process Identifier: 1.S.4.1

Brief Description: Develop the Supply Chain strategies and policies of the enterprise.

Supply Chain Strategy & Planning processes develop the Supply Chain strategies and policies of the enterprise, and the enterprise policies for supplier/partner engagement and interaction. For example, the enterprise decides that it will outsource the supply of all Mobiles Networks. Both the functional processes, as well as Infrastructure and Product Lifecycle Management processes, drive the Supply Chain Strategy and Policy processes.

8.4.2 Supply Chain Capability Delivery (SCD&M – ILM)
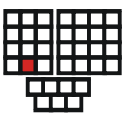
Process Identifier: 1.I.4.2

Brief Description: Manage the evaluation of new suppliers/partners, to determine those with the goods and services that best meet the enterprise's needs.

Supply Chain Capability Delivery processes manage the evaluation of new suppliers/partners, to determine those with the goods and services that best meet the enterprise's needs. These processes also initiate and complete business agreements with the supply chain, to allow the delivery of business and technical capabilities required by the enterprise. For example, through these processes, the enterprise might contract with a supplier of a Third-generation Mobile Network and put in place links between the IT Systems of the Supplier and the enterprise, ready to allow specific processes and products to be developed. Another example might be contracts for the supply of personal computers or office supplies for the enterprise. Supply Chain Capability Delivery processes manage the sourcing of infrastructure components, consumables, etc., required to support the capability requirements of the enterprise, evaluate and select new suppliers/partners, and establish commercial arrangements with selected suppliers/partners. The processes manage the specific evaluation of new suppliers/partners to determine those with the best capabilities to meet the enterprise's specific needs (for infrastructure, consumables, etc.), and establish commercial arrangements with selected suppliers/partners. These processes manage the activities associated with developing tender documents, running tender processes, gaining enterprise agreement to tender decisions, and negotiating commercial arrangements as a result of the tender decisions.

On completion of the contract arrangements, these processes can manage supply of the contracted goods and services (infrastructure, consumables, etc.) or can ensure that other processes are able to make requisitions against the contract (e.g., during Fulfilment), according to the appropriate policy and practices of the enterprise. Managing supply includes tracking of the goods and services to be supplied, interaction with the Supplier/partner over any delays or problems, and acceptance on completion of the supply.

These processes are also responsible for the establishment of commercial agreements between the enterprise and external parties/providers on B2B frameworks and interactions.

The tender process for the sourcing activity can be used not only for managing the sourcing of infrastructure of various types, but is also applicable for use in outsourcing tender processes, and for the sourcing of commodity items used within a business. The actual depth to which the sourcing process is used is dependent on such factors as the value of the sourced items. Note that these processes can also be used for the negotiated agreements between the enterprise and its competitors as a part of regulated inter-carrier agreements. While tender processes are not used in such a case, the processes for determining appropriate commercial arrangements and for gaining enterprise agreement are used for these regulated and competitive activities.

8.4.3 Supply Chain Development & Change Management (SCD&M – PLM)
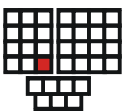
Process Identifier: 1.P.4.3

Brief Description: Support the development of a supply chain, to support service catalogue extension or modification.

Supply Chain Development & Change Management processes support the development of a supply chain, to support service catalogue extension or modification. New suppliers may be required to broaden the services a service provider offers to its customers, to improve performance, for outsourcing and out-tasking requirements, etc. These project-oriented processes identify new suppliers or partners, develop agreements and implement with the supplier or partner. In addition, these processes drive automation and change management for the supply chain: e.g., new/modified

processes and IT applications may be needed so that Mobile Number Portability for Third-generation Mobiles can be offered. Supply Chain Development & Change Management processes manage the ongoing commercial arrangements and processes between the enterprise and the selected supplier/partner, and manage the periodic agreement on specifications for deliverables within the context of the negotiated commercial agreement.

These processes recognize that the initial commercial arrangements may need to be varied over the course of the commercial agreement and manage the processes, which deliver this commercial variation. These processes also manage regular agreement between the enterprise and the supplier/partner on product deliverables, their specification, pricing and delivery timetable.

In addition the end-end commercial, delivery and operational processes between the enterprise and supplier/partner need to be monitored, reviewed and changed to improve their effectiveness.

These processes particularly apply when the commercial arrangements between the two parties exist over an extended period, and the commercial agreement allows for the ongoing specification of deliverables within the period of the commercial agreement. Shorter-term commercial agreements are unlikely to require the comprehensive level of commercial administration that these processes bring (but note that S/P Support & Readiness processes may have a role in this case).

9   Enterprise management processes Level 2 process decomposition
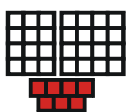
The TM Forum does not at this stage intend to completely develop Level 3 and further process decompositions and flows for all Enterprise Management Level 2 processes. The Enterprise Management processes tend to be generic in the sense that they are applicable to all enterprises, and cross-industry models may become available and then can be used. However, in some cases the eTOM working team is able to provide Level 3 decompositions based on the knowledge contained within information and communications service providers' organizations.

9.1   Strategic & Enterprise Planning (S&EP) processes

Process Identifier: 1.E.1

The Strategic & Enterprise Planning process grouping focuses on the processes required to develop the strategies and plans for the service provider enterprise. This process grouping includes the discipline of Strategic Planning that determines the business and focus of the enterprise, including which markets the enterprise will address, what financial requirements must be met, what acquisitions may enhance the enterprise's financial or market position, etc. Enterprise Planning develops and coordinates the overall plan for the business working with all key units of the enterprise. These processes drive the mission and vision of the enterprise. IT Planning for the enterprise is also a key process within this process grouping. The IT Planning process directs IT across the enterprise, provides IT guidelines and policies, funding approval, etc. (Note that IT development and management processes are managed within the Resource Development & Management horizontal functional process grouping.)
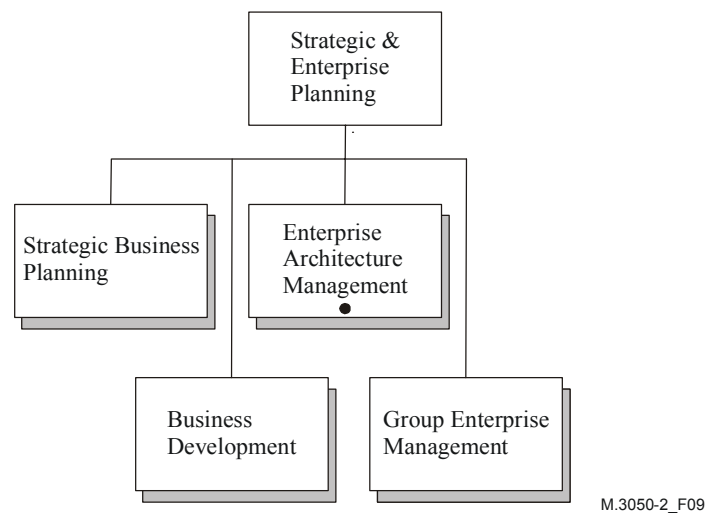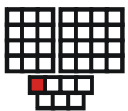
Figure 9/M.3050.2 – Strategic & Enterprise Planning decomposition into Level 2 processes

### 9.1.1   Strategic Business Planning (S&EP – EM)

Process Identifier: 1.E.1.1

Brief Description: Provide strategic business direction to the enterprise.

Strategic Business Planning processes provide strategic business direction to the enterprise. These processes encompass all of the functions required to provide strategic business direction to the enterprise, to create actionable plans based on the business strategy and to provide high-level program management of their implementation.

9.1.2   Business Development (S&EP – EM)
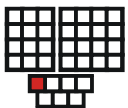
Process Identifier: 1.E.1.2

Brief Description: Broaden the scope of the enterprise activities through expansion, or sharpening of the enterprise's focus through divestment or outsourcing of non-critical activities.

Business Development processes develop concepts for new revenue streams, diversification of revenue streams and focusing or broadening of the customer base via investigating new markets, as well as different products and services for the enterprise. The focus is on broadening the scope of the enterprise activities through expansion, or sharpening the enterprise focus through divestment or outsourcing of non-critical activities. The Marketing & Offer Management processes are responsible for the development of markets and products within the existing scope of the enterprise. Business Development processes understand what processes are critical to the identity of the enterprise as priority processes and look for higher quality and lower cost solutions for these high priority processes. In many cases, these processes would identify the opportunity for a 'surgical' outsourcing of a function or process that is not a priority of the enterprise, or is a process the enterprise cannot deliver at competitive benchmarks. Business Development processes are closely related to Strategic Planning. To realize certain enterprise strategies, Business Development processes manage investigation of potential merger and acquisition options and facilitate negotiation and implementation of mergers or acquisitions.

9.1.3 Enterprise Architecture Management (S&EP – EM)
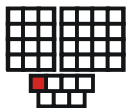
Process Identifier: 1.E.1.3

Brief Description: Define, develop, manage and maintain the enterprise architecture.

Enterprise Architecture Management processes define, develop, manage and maintain the enterprise architecture, which is the model describing the enterprise in all its facets. These processes define/select, develop and deploy the enterprise architecture methodology, which is a framework that identifies the reference models, their relationships to each other, and the architecture management processes used to establish and maintain the enterprise architecture. The framework contains the policies, guidelines, documentation templates and approaches to be used throughout the enterprise. In addition, Enterprise Architecture Management details the processes used to capture, modify, communicate, and review the enterprise architecture and manage exceptions to it. These processes define and select the toolsets used to capture the enterprise architecture (e.g., UML tools), and develop any required standards or reference framework to be used with the tools. The processes define, develop and maintain the repositories and associated repository meta-models to be used to capture architecture details, and manage and administer the capture processes.

In addition, enterprise architecture management processes define the skill sets required for architects, develop training programs and manage any certification process for architects across the enterprise.

Enterprise Architecture Management provides the reference source for the enterprise Standard Operating Environment that is the collection of applications, hardware, software and network components that have been standardized for use across the enterprise.

Lastly, enterprise architecture management provides a point of review for strategy and tactical/solution architecture, and defines and manages the review processes.

The business strategies and plans provide a key starting point for the development and direction provided by the Enterprise Architecture Management.

Note that enterprise architecture management covers both IT and network technologies.

The Enterprise Architecture Management processes impact other areas within the eTOM model, such as Knowledge Management and Process Architecture Management.

9.1.4 Group Enterprise Management (S&EP – EM)
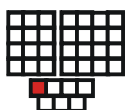
Process Identifier: 1.E.1.4

Brief Description: Plan and manage coordination across business units within the enterprise, and between the enterprise and its subsidiaries.

Group Enterprise Management processes are responsible for planning and management of coordination across business units within the enterprise, and between the enterprise and its subsidiaries (note that similar interactions concerning outsourcing involving suppliers and partners is handled elsewhere, through Supply Chain and Supplier/Partner processes). The focus is on processes concerned with the coordination within the enterprise's own organization, including subsidiaries, from an Enterprise-wide point of view.

This includes planning and implementation of cross-business unit operations, harmonization of processes and communication systems; funding and cross-subsidies, investment for business development; and planning, execution and management of

existing and new business activities.

9.2 Enterprise Risk Management (ERM) processes
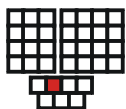
Process Identifier: 1.E.2

The Enterprise Risk Management process grouping focuses on assuring that risks and threats to the enterprise value and/or reputation are identified, and appropriate controls are in place to minimize or eliminate the identified risks. The identified risks may be physical or logical/virtual. Successful risk management ensures that the enterprise can support its mission critical operations, processes, applications, communications in the face of a serious incident, from security threats/violations and fraud attempts.

The Enterprise Risk Management processes deal with issues surrounding business continuity, security and fraud. Where those risks can be managed within the context of the enterprise, they are managed. However, there are some risks, which are outside of the ability of the enterprise to re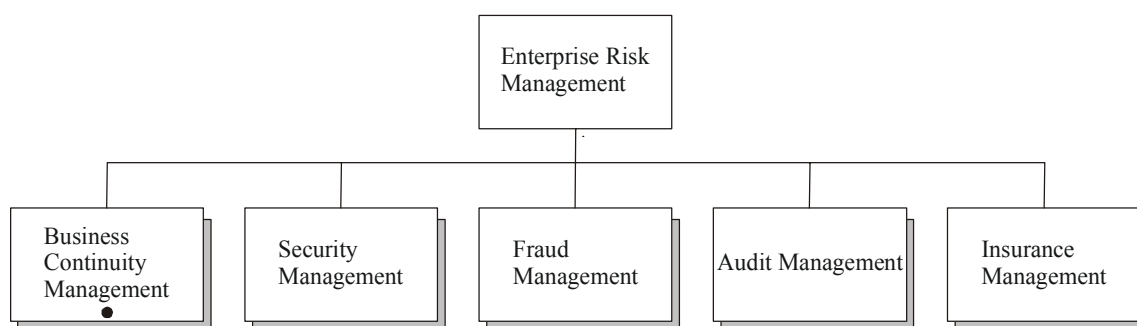duce. In those circumstances external insurance can give some comfort to the enterprise, and so the area of insurance management is a key element.

A key aspect of risk management is an independent assessment that the identified controls are in place and working effectively. This independent assessment is provided by the Audit Management processes.

In many enterprises the area of credit management can be incorporated within the Enterprise Risk Management processes. In the information and communications technology industry, the issuing of credit and credit assessment is intimately tied with the operational processes surrounding the identification and management of customers. In the eTOM Business Process Framework, credit management processes are therefore placed within the CRM horizontal process grouping.

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Figure 10/M.3050.2 – Enterprise Risk Management decomposition into Level 2 processes

9.2.1 Business Continuity Management (ERM – EM)
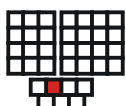
Process Identifier: 1.E.2.1

Brief Description: Manage the development of strategies, policies, plans, organizational roles & responsibilities, and escalation procedures for ensuring continuation of business processes and activities in the event of serious and/or sustained interruption.

Business Continuity Management processes manage the development of strategies, policies, plans, organizational roles & responsibilities, and escalation procedures for ensuring continuation of business processes and activities in the event of serious and/or sustained interruption. These processes ensure that appropriate plans and procedures

are established and tested to provide continuous operation, or controlled re-establishment, of key business processes and activities, to provide for a controlled recovery of infrastructure capability to normal levels, and for determination of operational accountability and processes until the abnormal circumstances are resolved. These processes have four major aspects:

- Business continuity planning which provides for the proactive planning and testing of business and operational procedure continuity;

- Infrastructure recovery planning which provides for the proactive determination of recovery and backup procedures for all key infrastructure capabilities, and their proactive testing;

- Serious incident management planning which defines the operational roles and responsibilities, and proactively defines the operational procedures and escalation criteria which are initiated when abnormal operation circumstances occur; and

- Business continuity management methodologies, which ensure consistent application of business continuity management across the enterprise.

Note that business continuity management is an extended process structure which incorporates disaster recovery planning.

Note that serious incident management is used instead of crisis management as serious disruption can occur to the business through events which would not normally be classified as a crisis.

9.2.2 Security Management (ERM – EM)
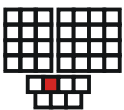
Process Identifier: 1.E.2.2

Brief Description: Assess threats to the enterprise and provide capabilities and controls to minimize the threats identified.

Security Management processes assess threats to the enterprise and provide capabilities and controls to minimize the threats identified. These processes are responsible for setting Security Management corporate policies, guidelines, best practices and auditing for compliance by the enterprise. Security Management addresses internal and external sources of security violations.

Security management deals with enterprise exposure to loss of value or reputation through threats or security violations.

Proactive Security Management processes identify areas of threat to the enterprise (covering both internal and external sources of threat), and monitor industry trends and best practice approaches to ensure that the enterprise remains at the forefront of security management threat minimization. Areas of threat can be physical (e.g., break-ins or terrorist incident, inappropriate use of network) or logical (e.g., inappropriate access to and use of information technology). The processes support the categorization and prioritization of areas of threat. These processes define the policies, guidelines, practices and procedures to be followed and provide assistance to the enterprise operational areas to deploy appropriate physical infrastructure, procedures and monitoring capabilities.

Reactive Security management processes deal with the establishment of tools and data collection capabilities to capture details of operation activity, analysis of monitored activity to detect potential threats/security violations, and forensic investigations to determine whether the potential threat is imminent or a security violation has occurred, and the potential or actual perpetrators.

Security Management processes interface to external security, police and/or investigative organizations.

These processes strongly interact with Fraud Management and have common elements and information services and communications specific elements.

Security Management processes are implemented at many levels of the enterprise and at the user, system/network, etc. levels.

Note that the actual security monitoring, control and management procedures and facilities are embedded in the operational infrastructure and processes defined and deployed within the SIP and Operations process areas.

Note that Audit Management processes provide assurance that the necessary control structures are in place, and provide an estimate to the extent to which the procedures are followed and are effective.

9.2.3   Fraud Management (ERM – EM)
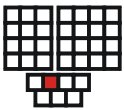
Process Identifier: 1.E.2.3

Brief Description: Define Fraud Management corporate policies, guidelines, best practices and control procedures to be deployed to ensure fraud minimization within the enterprise.

Fraud Management processes define Fraud Management corporate policies, guidelines, best practices and control procedures to be deployed to ensure fraud minimization within the enterprise. Fraud management deals with enterprise exposure to loss of value or reputation through fraudulent activity, and covers financial, intellectual property, identity theft, as well as other aspects.

Proactive Fraud Management processes identify areas of fraud risk within the enterprise (including internal and external sources of risk), and monitor industry trends and best practice approaches to ensure that the enterprise remains at the forefront of fraud management minimization. The processes support the categorization and prioritization of areas of fraud risk. These processes define the policies, guidelines, practices and procedures to be followed and provide assistance to the enterprise operational areas to deploy appropriate procedures and monitoring capabilities.

Reactive Fraud management processes deal with the establishment of tools and data collection capabilities to capture details of operation activity, analysis of monitored activity to detect potential fraudulent concerns, and forensic investigations to determine whether fraud has occurred, and the perpetrators of the fraud.

These processes strongly interact with Security Management and have common elements and information services and communications specific elements.

Fraud processes are implemented at many levels of the enterprise and at the user, system/network, etc., levels.

Note that the actual fraud monitoring, control and management procedures and facilities are embedded in the operational processes defined and deployed within the Operations process area.

Note that Audit Management processes provide assurance that the necessary control structures are in place, and provide an estimate to the extent to which the procedures are followed and are effective.

9.2.4   Audit Management (ERM – EM)
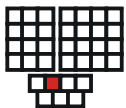
Process Identifier: 1.E.2.4

Brief Description: Provide assurance to senior management and the enterprise Board that the enterprise processes and controls are effective and conform to relevant adopted standards.

Audit Management processes provide assurance to senior management and the enterprise Board that the enterprise operational processes and controls are effective and conform to relevant adopted standards (which may be externally imposed or internally adopted). Audit Management processes may be managed by external independent organizations, or by internal groups within the enterprise, but in either case are designed to support senior management/Board assurance. They can also be used proactively to develop risk assessment methodologies, scoring systems, and advice to operational groups who are responsible for the operations processes. However, the assurance role of the processes is more related to reactive assessment.

The processes identify, prioritize and manage audit programs, define the audit policies and procedures, assess operational activities to ensure necessary or mandated control structures are in place, and provide an estimate to the extent to which the procedures are followed and are effective. The processes ensure that appropriate reports relating to compliance and capability are provided to senior management/Board within appropriate defined time-frames. The processes define the audit approach to be used depending on the circumstances, as well as the risk assessment methodology and scoring approach to be used.

### 9.2.5   Insurance Management (ERM – EM)
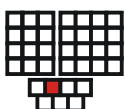
Process Identifier: 1.E.2.5

Brief Description: Assess and manage the insurable risks within an enterprise.

Insurance Management processes are responsible for assessing and managing the insurable risks within an enterprise. These processes identify areas and activities within the enterprise where risk aspects are insurable, and analyse the cost/benefits of undertaking specific insurance. These processes provide advice and consultancy to the enterprise relating to insurance of local activities and programs. These processes manage the engagement with the external insurance industry, and administer insurance policies and portfolios. Depending on the nature of the risk being insured, the Supply Chain Development and Management processes are used to select an appropriate insurer, in other cases where the number of insurance providers is small, the negotiation process may be directly managed by these processes.

9.3   Enterprise Effectiveness Management (EEM) processes
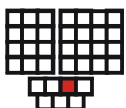
Process Identifier: 1.E.3

The Enterprise Effectiveness Management process grouping focuses on defining and providing the tools, methodologies and training to ensure that the enterprise processes and activities are managed and run efficiently and effectively.

Any enterprise has a host of processes which are used to support the business of the enterprise and its customers and suppliers. By necessity, these processes need to evolve and change over time. Process Management & Support processes ensure that the enterprise has the capability to undertake this process evolution.
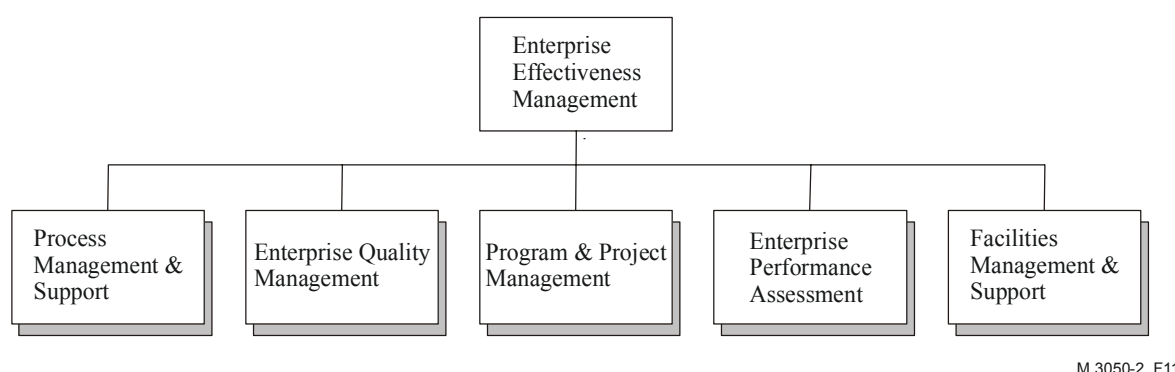
Across an enterprise many activities occur to expand the capability of the enterprise to deliver products and services, provide other facilities, deliver new processes, etc. By

the nature of the enterprise, these activities are complex and require a high degree of coordination, often across the enterprise. Program and project management is a key competence of an enterprise, and the Program & Project Management processes establish and maintain this core competence.

Ensuring that the enterprise is both effective and efficient requires that activities undertaken are done correctly the first time. The Enterprise Quality Planning & Support processes establish the quality framework to be employed within the enterprise.

Effective management requires effective measurement, and the Enterprise Performance Assessment processes provide the control framework for the establishment and management of appropriate enterprise performance measures.
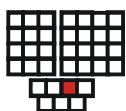
Facilities Management & Support processes take care of environmental aspects within the enterprise's workplace, making sure the workplace facilities are adequate to guarantee an optimal performance of the employees.

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**Figure 11/M.3050.2 – Enterprise Effectiveness Management
decomposition into Level 2 processes**

9.3.1   Process Management & Support (EEM – EM)
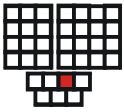
Process Identifier: 1.E.3.1

Brief Description: Define and manage enterprise process management.

Process Management & Support processes define and manage enterprise process management. These processes define the methodology to be employed by all process design, process change management or process re-engineering activities across the enterprise. As a part of this definition the tools sets, if any, to be used as a part of the process design, process change management or process re-engineering activity are defined, sourced and deployed as required across the enterprise. The required skill sets to support the methodology are defined, appropriate training is developed or arranged, staff to be trained identified and administration of the training undertaken. Any certification processes for the process methodologies are managed by these processes. If the selected methodology requires licensing from external parties, these processes manage the establishment and maintenance of the necessary licences. These processes ensure coordination of distributed process design, process change management or process re-engineering activities to ensure that duplication is minimized and that process reuse is achieved to the maximum extent possible. These processes also define enterprise policies and guidelines for process management within the enterprise.

Cost and performance of individual process activities is the accountability of the operational area using the process. These processes monitor the value of the overall

process management activities to ensure that the enterprise continues to gain value from using process management. Appropriate reports on performance at the enterprise level and lower levels are produced by these processes.

### 9.3.2 Enterprise Quality Management (EEM – EM)

Process Identifier: 1.E.3.2

Brief Description: Define the enterprise quality management policies and the enterprise model for quality management.

Enterprise Quality Management processes define the enterprise quality management policies and the enterprise model for quality management. They support all operations and lifecycle processes in the implementation and control of this model.

Note that quality is actually assessed within each area of the enterprise, but follows the guidelines defined by this process, which provides a template for specific applications of quality management in any areas of the Enterprise.

### 9.3.3 Program & Project Management (EEM – EM)
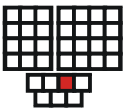
Process Identifier: 1.E.3.3

Brief Description: Define and manage the program and project management methodologies, skills and tools within the enterprise.

Program & Project Management processes define and manage the program and project management methodologies, skills and tools within the enterprise. These processes document the program and project methodologies to be used by all projects within the enterprise, and provide documentation templates and any project management tools required. The processes select any tools required to support project and program management, using the Supply Chain Development & Management processes as required. The skills sets and required levels of certification, if any, are defined and managed by these processes. If used, these processes may develop and manage an enterprise repository of program and project information. Metrics associated with program and project management are defined, collected and analysed by these processes.

Note that projects are actually managed within other areas of the enterprise but follow the guidelines defined by this process, which provides a template for specific applications of Program & Project Management in any area of the enterprise.

9.3.4 Enterprise Performance Assessment (EEM – EM)
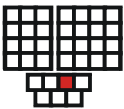
Process Identifier: 1.E.3.4

Brief Description: Check that the goals defined for the enterprise are on track and being met.

Enterprise Performance Assessment processes check that the goals defined for the enterprise are on track and being met. These processes provide regular reporting to senior management and the Board on the status of all defined performance metrics on a regular basis (usually monthly). The processes define and determine the most appropriate performance measures, collect and analyse the associated data and produce summary reports. The measures may be internally developed, or may be based on externally produced or collected measures. Examples of external measures could be customer satisfaction surveys, within or across market segments, or benchmarking studies of particular aspects of the enterprise performance. Examples of internal performance measures can be based on financial performance (i.e., progress against budget), operational process performance based metrics, or employee related measures

such as employee opinion surveys.

The Enterprise Performance Assessment processes produce the enterprise Balanced Scorecard.

These processes establish and administer relationship with external survey companies if required to provide external measures or assist in developing internal measures.

Note that performance is actually assessed within each area of the enterprise, but follows the guidelines defined by this process, which provides a template for specific applications of Performance Assessment in any areas of the Enterprise.

9.3.5 Facilities Management & Support (EEM – EM)
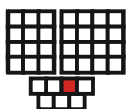
Process Identifier: 1.E.3.5

Brief Description: Take care of environmental aspects within the enterprise's workplace.

Facilities Management & Support processes take care of environmental aspects within the enterprise's workplace, making sure the workplace facilities are adequate to guarantee the optimal performance of the employees.

9.4 Knowledge & Research Management (KRM)

Process Identifier: 1.E.4

The Knowledge and Research Management process grouping performs knowledge management and research management within the enterprise including evaluation of potential technology acquisitions.

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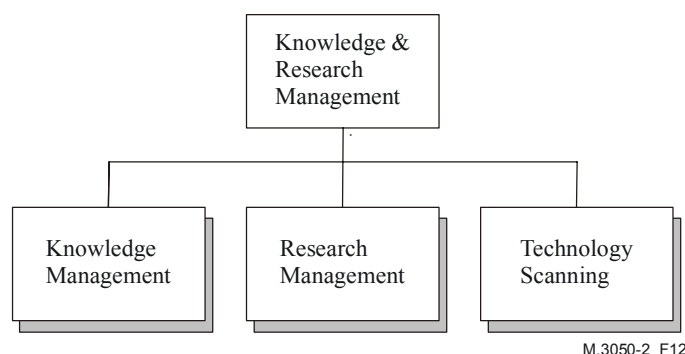
**Figure 12/M.3050.2 – Knowledge & Research Management
decomposition into Level 2 processes**

9.4.1 Knowledge Management (KRM – EM)
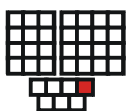
Process Identifier: 1.E.4.1

Brief Description: Manage the tacit and explicit knowledge contained with the enterprise.

Knowledge Management processes are responsible for managing the tacit and explicit knowledge contained with the enterprise. This includes establishing processes and capabilities to ensure that all staff have the necessary knowledge available to them to be effective in their work, and to ensure that knowledge captured through work activities is retained and made available as required across the enterprise. Some examples of knowledge management processes include processes associated with patent management, Intellectual Property Rights management, standards for

information and information capture and storage, assigning and providing direction for data stewardship, minimizing instances of the same data, etc. Other processes examples include establishment of policies and managing establishment of enterprise portals and intranet capabilities.

9.4.2   Research Management (KRM – EM)
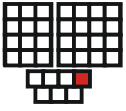
Process Identifier: 1.E.4.2

Brief Description: The Research Management processes plan and prioritize research and development activities within the enterprise.

The Research Management processes plan and prioritize research and development activities within the enterprise. These processes identify and evaluate the business value of R&D investment. These processes manage the commitment of financial and other resources to the pursuit of areas of R&D, and management of R&D programs and ongoing assessment of their value and priority. These processes cooperate with Technology Acquisition for corporate-level decisions on "make vs buy" concerning internal or external Research & Development investment.

9.4.3   Technology Scanning (KRM – EM)
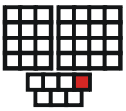
Process Identifier: 1.E.4.3

Brief Description: Perform scanning and initial assessment of emerging technology from external sources for the enterprise.

Technology Scanning processes perform scanning and initial assessment of emerging technology from external sources for the enterprise. This includes identification and evaluation of potential technologies, and sources of technologies, and comparison with the "in-house" research capabilities. It also includes determining the business value of potential technology acquisitions, and provides an initial assessment of any financial or other commitments to actually acquire specific technologies where this is appropriate.

These processes cooperate with Research Management processes for corporate-level decisions on "internally develop vs buy" concerning emerging technology, by providing expert assessment assistance in making decision. Any sourcing of the proposed technology is delivered through the Supply Chain Capability Delivery processes.

9.5   Financial & Asset Management (F&AM) processes

Process Identifier: 1.E.5

The Financial & Asset Management (F&AM) process grouping focuses on managing the finances and assets of the enterprise. Financial Management processes include Accounts Payable, Accounts Receivable, Expense Reporting, Revenue Assurance, Payroll, Book Closings, Tax Planning and Payment, etc. Financial Management processes collect data, report and analyse the results of the enterprise. They are accountable for overall management of the enterprise income statement. Asset Management processes set asset policies, track assets and manage the overall corporate balance sheet.

Figure 13/M.3050.2 – Financial & Asset Management decomposition into Level 2 processes

Figure 13/M.3050.2 – Financial & Asset Management decomposition into Level 2 processes
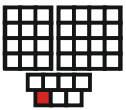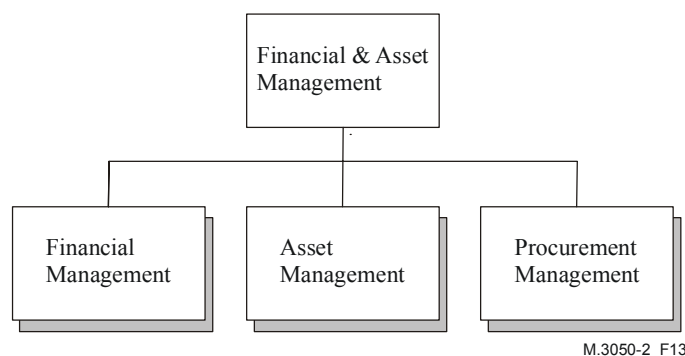
9.5.1 Financial Management (F&AM – EM)

Process Identifier: 1.E.5.1

Brief Description: Manage the financial management aspects of the enterprise.

Financial Management processes manage the financial aspects of the enterprise such as Treasury, Banking, Payroll, Financial Planning, Auditing and Accounting Operations functions, e.g., Accounts Receivable and Payable. These processes are accountable for the financial health of the enterprise, managing cash flow, auditing for compliance to financial and expense policies, etc.

9.5.2 Asset Management (F&AM – EM)

Process Identifier: 1.E.5.2

Brief Description: Manage all financial and policy aspects of the physical assets of the enterprise.

Asset Management processes manage all financial and policy aspects of the physical assets of the enterprise (corporate real-estate, fleets, infrastructure, stocks, consumables, etc.); they set asset management policies, track assets using physical asset recording systems and manage the overall corporate balance sheet.

For each managed corporate asset, these processes plan for future needs and coordinate with the Supply Chain Development & Management processes for all aspects related to purchasing.

9.5.3 Procurement Management (F&AM – EM)
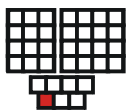
Process Identifier: 1.E.5.3

Brief Description: Define corporate procurement and logistics policies and rules, for all purchases, warehousing, transport, stock level management and physical resource distribution, and supervise their application.

Procurement Management processes define corporate procurement and logistics policies and rules, for all purchases, warehousing, transport and physical resource distribution, and supervise their application. These processes manage and control the acceptance of goods from suppliers and any transport arrangements to deliver the goods to either warehouses or site. They define the warehousing structure (centralized and/or distributed) and the associated management policies to be applied to purchased goods. The logistics/transport processes develop policies related to transport of purchased material to warehousing, to site, etc. The stock/inventory management processes, in conjunction with Asset Management processes which provide the inventory information resource, develop corporate policies relating to locations of, and

levels of, stock/inventory holdings. These processes also manage the processes associated with the return of faulty goods for repair.

9.6 Stakeholder & External Relations Management (S&ER) processes

Process Identifier: 1.E.6

The Stakeholder & External Relations Management process grouping focuses on managing the enterprise's relationship with stakeholders and outside entities. Stakeholders include shareholders, employee organizations, etc. Outside entities include regulators, local community and unions. Some of the processes within this grouping are Shareholder Relations, External Affairs, Labour Relations and Public Relations.
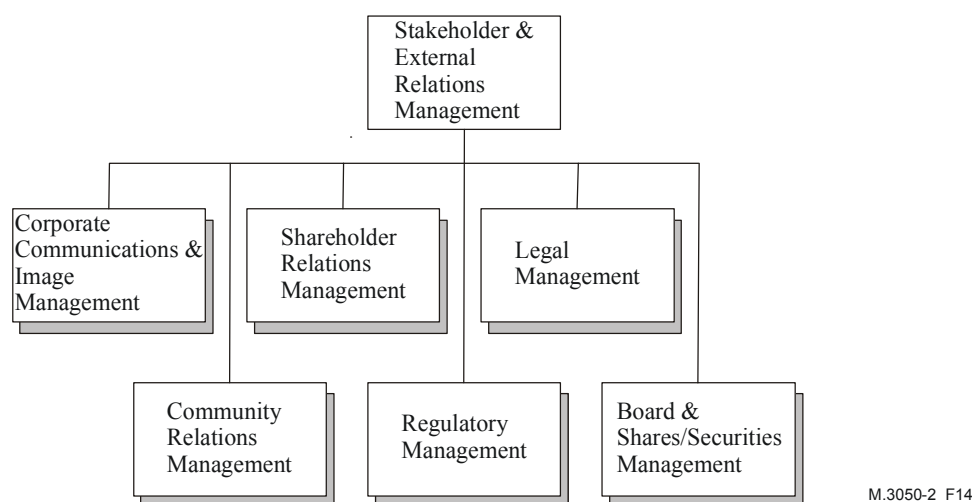
Figure 14/M.3050.2 – Stakeholder & External Relations Management decomposition into Level 2 processes

9.6.1 Corporate Communications & Image Management (S&ER – EM)
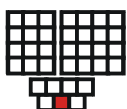
Process Identifier: 1.E.6.1

Brief Description: Communicate the required messages to the market and industry about the overall enterprise, and handle enquiries and other interactions with the mass media.

Corporate Communications & Image Management processes are responsible for communicating the required messages to the market and industry about the overall enterprise. These include promotion of the desired corporate image for the enterprise and its general business and products. Areas such as sponsorship, corporate-level advertising and general contact with industry bodies, and government and regulatory agencies, are addressed here. These processes also assign spokespeople for marketing topics and any corporate issues, develop specific messages for topics of concern to the enterprise, manage message release approval, manage media interactions with spokespeople, and monitor market reaction to messages and implement any necessary changes or adaptations.

9.6.2 Community Relations Management (S&ER – EM)

Process Identifier: 1.E.6.2

Brief Description: Ensure the enterprise's position within the community, or communities, within which it operates.

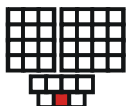Community Relations Management processes are responsible for ensuring the enterprise's position within the community, or communities, within which it operates. This includes local activities with, and financial and other support for, schools, libraries, hospitals, emergency services, etc.; concern for the immediate environment; visibility at local events; etc. This area also communicates the desired messages about the enterprise to the community that the enterprise operates within, as well as to employees from a global enterprise standpoint. These processes also handle contact with customer interest groups and customer representatives, as well as dealing with public relations and community relations contacts made to the enterprise. These processes also influence the privacy policy for the enterprise.

9.6.3 Shareholder Relations Management (S&ER – EM)

Process Identifier: 1.E.6.3

Brief Description: Manage the relationship between the enterprise and its shareholders.

Shareholder Relations Management processes manage the relationship between the enterprise and its shareholders, consistent with all business, financial, legal, and regulatory requirements. This includes incoming and outgoing communication with shareholders.

Also included in these processes are the management and administration of employee share and/or option plans. Note that the structure and level of employee share and/or option plans is determined within the HR Policies and Practices processes.

9.6.4 Regulatory Management (S&ER – EM)

Process Identifier: 1.E.6.4

Brief Description: Ensure that the enterprise complies with all existing government regulations.

Regulatory Management processes ensure that the enterprise complies with all existing government regulations. Additionally, this process is responsible for legally influencing pending regulations and statutes for the benefit of the enterprise and to inform the enterprise of potential consequences of pending legislation or regulations. In addition, these processes are responsible for tariff filings as required.

9.6.5 Legal Management (S&ER – EM)
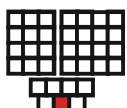
Process Identifier: 1.E.6.5

Brief Description: Ensure that the enterprise complies with all relevant legal requirements.

Legal Management processes are responsible for ensuring that the enterprise complies with all relevant legal requirements, including due diligence. They are also responsible for carrying out legal requests within the enterprise, supporting the enterprise by providing legal advice related to business decisions, and proactively notifying the enterprise of relevant changes or trends that can affect the legal environment that the enterprise operates within. These processes deal with any legal action taken on behalf of or against the enterprise.

9.6.6 Board & Shares/Securities Management (S&ER – EM)
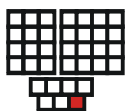
Process Identifier: 1.E.6.6

Brief Description: Manage all activities associated with Board administration and securities regulation.

The Board & Shares/Securities Management processes manage all activities associated with Board administration and securities regulation. The Board Management processes manage Board related activities, and communication of Board decisions throughout the enterprise as required. Shares/Securities Management manages all activities associated with securities/shares of the enterprise and any securities/company regulations impacting on the company, including the administration and management of continuous disclosure/announcements to the securities exchange and/or securities/company regulator. These processes manage all activities associated with modifying the capital/equity structure of the enterprise, including all logistics functions associated with approaching the market for capital/increased equity. These processes manage and administer the enterprise's share/stock registry.

9.7 Human Resources Management (HR) processes

Process Identifier: 1.E.7

The Human Resources Management process grouping provides the human resources infrastructure for the people resources that the enterprise uses to fulfil its objectives.

For example, Human Resources Management processes provide salary structures by level, coordinate performance appraisal and compensation guidelines and set policies in relation to people management, employee benefit programs, etc.

Moreover it supports the definition of the organization of the enterprise and coordinates its reorganizations.

Note that Human Resources Management processes are concerned with preparing people to carry out their assigned tasks (e.g., organizing training, remuneration, recruiting, etc.). The actual assignment of specific tasks is the responsibility of Work Force Management processes.

M.3050-2_F15

Figure 15/M.3050.2 – Human Resources Management decomposition into Level 2 processes

9.7.1 HR Policies & Practices (HR – EM)

Process Identifier: 1.E.7.1

Brief Description: Support people management throughout the enterprise.

HR Policies & Practices include the processes that support people management throughout the enterprise, e.g., performance appraisal, remuneration policies, remuneration levels, allowances, b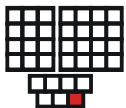enefits, occupational health and safety, equal employment opportunity, compensation guidelines, code of conduct, hiring and termination guidelines, employee satisfaction measurement and management, etc.

9.7.2 Organization Development (HR – EM)

Process Identifier: 1.E.7.2

Brief Description: Support the definition of the organization of the enterprise and coordinate its reorganizations.

Organization Development processes support the definition of the organization of the enterprise and coordinate its reorganizations. These processes can apply for the overall organization, can define the organization of single business units, or at least can ensure coherency and/or guarantee support to specific processes defining the organization of single business units elsewhere within the enterprise.

9.7.3 Workforce Strategy (HR – EM)

Process Identifier: 1.E.7.3

Brief Description: Drive overall enterprise workforce strategies, including their development and execution at the individual business unit level.

Workforce Strategy processes drive overall enterprise workforce strategies, including their development and execution at the individual business unit level. Workforce Strategy processes include understanding the requirements of the business and defining the competencies and skills required of the human resources. The processes define the requirements for competency modelling, application of profiling, overall job design, approach to employee satisfaction, etc. These processes create the strategies needed to ensure that the correct type, quantity and quality of employees will be available in right locations for future business. These processes, working with all areas of the enterprise, determine the changes required in the enterprise's workforce and the strategies required to make the necessary changes.

9.7.4 Workforce Development (HR – EM)

Process Identifier: 1.E.7.4

Brief Description: Develop employees to meet the needs of the business.

Workforce Development processes focus on development of employees to meet the needs of the business. These processes include competency modelling, skills assessment, job and employee strength profiling, succession planning, training development and delivery, career development, work design, employee recruitment, etc. These processes support both the overall enterprise and the needs of individual business units or functions.

9.7.5 Employee & Labour Relations Management (HR – EM)
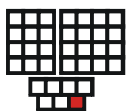
Process Identifier: 1.E.7.5

Brief Description: Manage relationships with employees at an enterprise and employee group level.

Employee & Labour Relations Management processes focus on relationships with employees at an enterprise and employee group level. Labour Relations processes include definition of terms of employment, labour contracts development, union contract negotiations, arbitration management, etc. Employee Relations processes cover a variety of processes, e.g., counselling programs, interface to employee groups, employee involvement in the community and charities in the name of the company, etc.

10 Operations Level 3 process decompositions

10.1 Customer Relationship Management (CRM) processes

Process Identifier: 1.OFAB.1

This horizontal functional process grouping considers the fundamental knowledge of customers needs and includes all functionalities necessary for the acquisition, enhancement and retention of a relationship with a customer. It is about customer service and support, whether storefront, telephone, web or field service. It is also about retention management, cross-selling, up-selling and direct marketing for the purpose of selling to customers. CRM also includes the collection of customer information and its application to personalize, customize and integrate delivery of service to a customer, as well as to identify opportunities for increasing the value of the customer to the enterprise.

CRM applies to both conventional retail customer interactions, as well as to wholesale interactions, such as when an enterprise is selling to another enterprise that is acting as the 'retailer'.

Figure 16/M.3050.2 – Customer Relationship Management decomposition into Level 2 processes

10.1.1 CRM Support & Readiness (CRM – OSR)
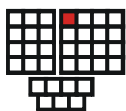
Process Identifier: 1.O.1.1

Brief Description: CRM Support & Readiness processes manage classes of products, ensuring that all CRM processes in Fulfilment, Assurance and Billing are supported and able to manage interactions with customers promptly and efficiently.
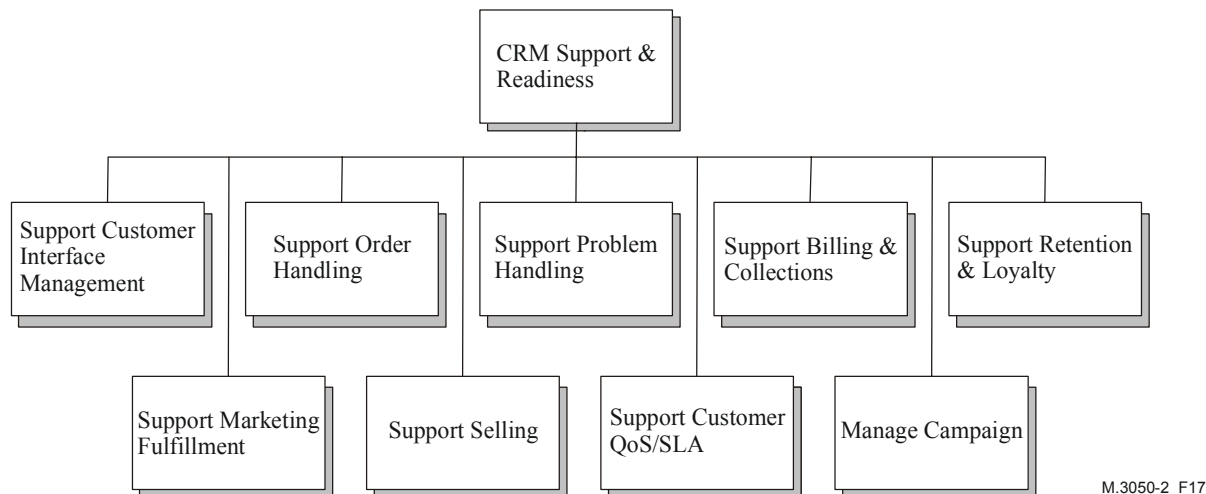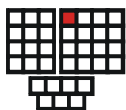

Figure 17/M.3050.2 – CRM Support & Readiness decomposition into Level 3 processes

10.1.1.1 Support Customer Interface Management

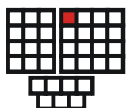**Process Name: Support Customer Interface Management**

Process Identifier: 1.O.1.1.1

Brief Description: Ensure that all information, materials, systems and resources are available so that the Customer Interface Management processes can operate effectively, when a contact with a customer occurs.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resource) so that the Customer Interface Management processes can operate effectively when a contact with a customer occurs. Examples are information on how to handle unusual requests based on temporary situations, systems needed to accept and track customer contacts, requests for the provisioning of additional resources where it has been identified that current levels will impact on timely contact handling. These processes are responsible for implementing generic and specific changes to customer interfaces. This support could be in updating agent scripts, IVR announcements, Web pages, etc. Customer Interface Support processes keep up to date all information concerning customers.

These processes undertake trend analysis on customer contacts, e.g., type, frequency, duration, outcome.

10.1.1.2 Support Order Handling

Process Name: Support Order Handling
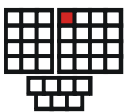
Process Identifier: 1.O.1.1.2

Brief Description: Ensure that all information, materials, systems and resources are available so that the Order Handling processes can operate effectively when a request is received from a customer.

Extended Description: The purpose of these processes is to ensure that there is capability (for example information, materials, systems and resources) so that the Order Handling processes can operate effectively when a request is received from a customer. Examples are information on how to process orders for specific products and services, information needed to carry out designs, materials needed to confirm order requests, systems needed to validate product and service availability, requests for the provisioning of additional resources where it has been identified that current levels will impact on timely order completion.

These processes update product intervals, product pricing and ordering codes, etc. They manage blocks of numbers provided for assignment, updates for correct ordering, etc.

The processes undertake trend analysis on order handling, such as time taken to complete an order, frequency and type of problems involved, and cancelled orders.

10.1.1.3 Support Problem Handling

**Process Name: Support Problem Handling**

Process Identifier: 1.O.1.1.3

Brief Description: Ensure capability to support the expected demand for the Problem Handling processes so that they can respond to customers effectively.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the Problem Handling processes can operate effectively. These processes monitor new product launches, environmental conditions, media coverage and current problem trends, then redistribute existing capability or enable new capability (people, facilities, infrastructure).

These processes undertake trend analysis on problem handling, including type and frequency of problems occurring and time taken to resolve.

10.1.1.4 Support Billing & Collections
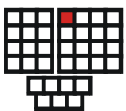
Process Name: Support Billing & Collections

Process Identifier: 1.O.1.1.4

Brief Description: Ensure that all information, materials, systems and resources are available so that the Billing & Collections Management processes can be completed without delay.

Extended Description: The purpose of these processes is to make sure that there is capability (for example, information, materials, systems and resources) so that the Billing & Collections Management processes can operate effectively. Examples are information on how to respond to current billing issues being raised by customers, materials needed to deliver bills to customers, systems needed to create bills or analyse customer billing concerns, requests for provisioning of additional resources where it has been identified that current levels will impact on timely bill preparation and billing complaint handling.

These processes undertake trend analysis on billing issues, including queries, delays and complaints.

10.1.1.5   Support Retention & Loyalty
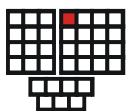
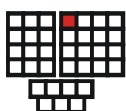**Process Name: Support Retention & Loyalty**

Process Identifier: 1.O.1.1.5

Brief Description: Ensure that all information, materials, systems and resources are available so that the Retention & Loyalty processes can be completed without delay, when a request is received from a customer.

Extended Description: The purpose of these processes is to make sure that there is capability (for example, information, materials, systems and resources) so that the Retention & Loyalty processes can operate effectively. Examples are information on current requests for analysis and collection of customer profile information, materials needed to analyse customer retention and loyalty information, systems needed to analyse customer retention and loyalty information, requests for the provisioning of additional resources where it has been identified that current levels will impact on timely retention and loyalty information collection and delivery.

These processes undertake trend analysis on retention and loyalty, including customer acquisitions and churn, and the effectiveness of loyalty schemes.

10.1.1.6   Support Marketing Fulfilment
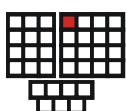
Process Name: Support Marketing Fulfilment

Process Identifier: 1.O.1.1.6

Brief Description: Ensure that there is capability to support the expected demand for the Marketing Fulfilment Response processes so that they can operate effectively.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the Marketing Fulfilment Response processes can operate effectively. These processes monitor planned Product Launches and current Marketing Fulfilment activity, then redistribute existing capability or enable new capability (people, facilities, infrastructure).

These processes undertake trend analysis on marketing, including problems occurring and launch effectiveness.

10.1.1.7   Support Selling

Process Name: Support Selling

Process Identifier: 1.O.1.1.7

Brief Description: Ensure capability to support the expected demand for the Selling processes so that they can respond to customers according to agreed targets.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) to support the Selling processes so that they can operate effectively. These processes monitor planned Marketing Campaigns and current selling trends, then redistribute existing capability or enable new capability (people, facilities, infrastructure).

Support Selling processes deal with the administration of the Selling processes and the effectiveness of the channels to support new and existing products and services, as well as existing and potential customers. The processes ensure the effectiveness of the sales staff and channels both in terms of skill sets available, but also in terms of demand forecasting and management of utilization.

Support Selling works in concert with all other marketing processes to determine the appropriate selling route or channel, and the required selling method and mechanism for specific market segments and channels, by product or product family, e.g., face-to-face contact, telemarketing, etc.

The Support Selling processes manage the processes associated with distribution of the enterprise's products and services (but they are, however, not responsible for day-to-day product distribution and logistics of product shipping and supply). Channels may be retail storefronts, e.g., a third-party retailer or an enterprise's own storefront, various websites or ISPs, B2B marketplaces or direct relationships with external parties, distributors for that product family, etc.

These processes undertake trend analysis on selling, including problems, successes, profit and loss.

10.1.1.8   Support Customer QoS/SLA
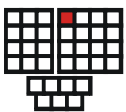
Process Name: Support Customer QoS/SLA

Process Identifier: 1.O.1.1.8

Brief Description: Ensure capability to support the Customer QoS/SLA Management processes to carry out monitoring and analysis of customer service performance.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the Support Customer QoS/SLA processes can operate effectively. They carry out monitoring and longer-term (for example trend) analysis of customer service performance according to agreed targets, such as those contained in customer SLAs. In order to maintain SLAs agreed for products they redistribute existing capability or enable new capability (people, facilities, infrastructure), and can initiate other actions to improve product class quality.

10.1.1.9   Manage Campaign
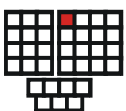
Process Name: Manage Campaign

Process Identifier: 1.O.1.1.9

Brief Description: Manage individual marketing campaigns developed by Product Marketing Communications & Promotion processes.

Extended Description: Manage Campaign processes manage individual Marketing Campaigns developed by Product Marketing Communications & Promotion processes. These processes monitor and undertake trend analysis on the effectiveness of the campaigns, make modifications and report results. Manage Campaign processes ensure that Marketing Fulfilment Response is staffed, trained and equipped appropriately to support the specific campaign, whether direct mail, TV ad, etc.

10.1.2   Customer Interface Management (CRM – FAB)

Process Identifier: 1.FAB.1.2

Brief Description: Managing all interfaces between the enterprise and potential and existing customers.
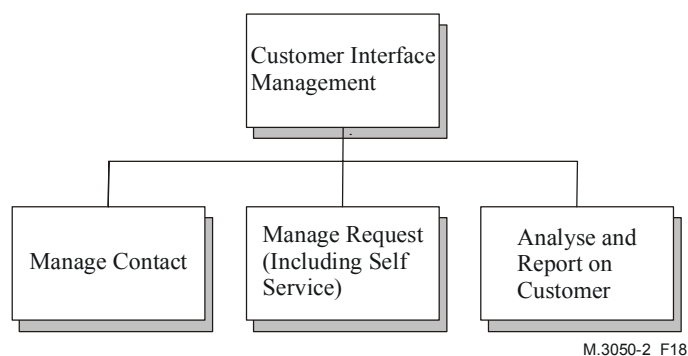
**Figure 18/M.3050.2 – Customer Interface Management
decomposition into Level 3 processes**

10.1.2.1 Manage Contact

Process Name: Manage Contact

Process Identifier: 1.FAB.1.2.1

Brief Description: Manage all contacts/requests between potential or existing customers and the enterprise.

Extended Description: The purpose of this process is to manage all contacts between potential or existing customers and the enterprise. It deals with the identification of the contact, its development, enhancement and update.

10.1.2.2 Manage Request (Including Self Service)

Process Name: Manage Request (Including Self Service)

Process Identifier: 1.FAB.1.2.2

Brief Description: Manage all requests (inbound and outbound) made by potential and existing customers.

Extended Description: The purpose of this process is to manage all requests (inbound and outbound) made by potential and existing customers. It receives the request and either enables its originator to automatically fulfil it, or identifies and activates the opportune process to accomplish the request; it manages the status of the request and is able to provide status information at any moment in which the request is active; it formally closes the request when all related activities have been terminated.

10.1.2.3 Analyse and Report on Customer

Process Name: Analyse and Report on Customer

Process Identifier: 1.FAB.1.2.3

Brief Description: Perform all necessary analysis on closed requests and on customer contacts and generate related reports.

Extended Description: The purpose of this process is to perform all necessary analysis on closed (completed or unfulfiled) requests and on customer contacts and it generates related reports, to be utilized for process improvement activities, proactive problems prevention, up-sell opportunities definition, etc.

10.1.3 Marketing Fulfilment Response (CRM – F)
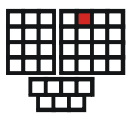
Process Identifier: 1.F.1.3

Brief Description: Responsible for the issue and distribution of marketing collateral directly to a customer and the subsequent tracking of resultant leads.

Figure 19/M.3050.2 – Marketing Fulfilment Response decomposition into Level 3 processes

10.1.3.1 Issue and distribute marketing collaterals

Process Name: Issue and distribute marketing collaterals

Process Identifier: 1.F.1.3.1

Brief Description: Issue and distribute marketing collateral (i.e., coupon, premium, sample, toys, fliers, etc.) directly to a customer.

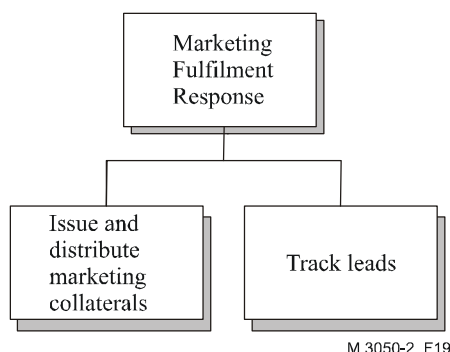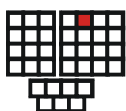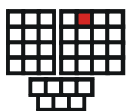Extended Description: The purpose of this process is to handle the issuing and distribution of marketing collateral to customer, in line with marketing campaign needs. This can involve mailshots, leafleting and displays at events, inserts in newspapers, television and other media advertising and magazines, voice and text messaging to individuals, and so on. Where required, this process deals with customization of general campaign material for individual regions or customer groups. Direct marketing and sales through shop premises, in-store franchises, etc. are also included, and this process also manages distribution of marketing collaterals to such outlets.

10.1.3.2 Track Leads

Process Name: Track Leads

Process Identifier: 1.F.1.3.2

Brief Description: Track leads generated through marketing, or that arise in the course of business.

Extended Description: The purpose of this process is to identify leads following on from marketing campaign advertising, or those that otherwise arise in the course of business and are collected here. Leads are tracked, evaluated and notified to other processes (e.g., Selling) for further action.

10.1.4 Selling (CRM – F)
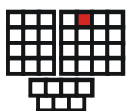
Process Identifier: 1.F.1.4

Brief Description: Responsible for managing prospective customers, for qualifying and educating customers, and matching customer expectations.
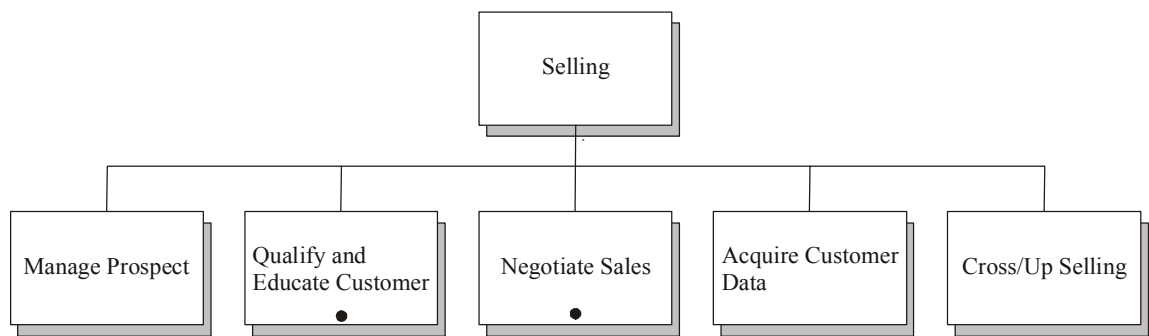
Figure 20/M.3050.2 – Selling decomposition into Level 3 processes

10.1.4.1 Manage Prospect

Process Name: Manage Prospect

Process Identifier: 1.F.1.4.1

Brief Description: Match identified leads with the most appropriate products and ensure that these prospects are handled appropriately.

Extended Description: The purpose of this process is to match identified leads with the most appropriate products and ensure that these prospects are handled appropriately. These prospects represent a "pipeline" of potential sales, each of which is expressed in terms of the probability of successful sales closure and an estimate of the total attainable revenue. The needs of each potential prospect are analysed. Based on these needs, potential solutions are identified from the service provider's product portfolio. Each prospect is tracked through these processes and the outcome (win or loss) of each prospect is reported. Prospects are assigned to the appropriate sales channel.
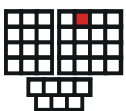
10.1.4.2 Qualify and Educate Customer

Process Name: Qualify and Educate Customer

Process Identifier: 1.F.1.4.2

Brief Description: Ensure that the business agreement between the customer and service provider is based upon mutual understanding.

Extended Description: The purpose of this process is to ensure that the business agreement between the customer and service provider is based upon mutual understanding. The customer is qualified in terms of any associated risk, and the amount of effort required (e.g., response to a Request for Proposal [RFP]). Alternative solutions may be developed and customized to the specific customer's requirements. The solution alternatives must be available (e.g., capacity) or scheduled on a product roadmap.

10.1.4.3 Negotiate Sales
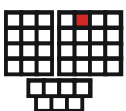
Process Name: Negotiate Sales

Process Identifier: 1.F.1.4.3

Brief Description: Close the sale with terms that are mutually agreeable to both the customer and the service provider.

Extended Description: The purpose of this process is to close the sale with terms that are mutually agreeable to both the customer and the service provider. One specific

solution is selected and its details are described in a sales proposal. The sale is concluded through negotiations of features, service levels, pricing and discounts, resulting in a sign-off formal agreement between the customer and service provider. The formal agreement could include a purchase Order.

10.1.4.4 Acquire Customer Data

Process Name: Acquire Customer Data

Process Identifier: 1.F.1.4.4

Brief Description: Record all pertinent customer data.

Extended Description: The purpose of this process is to record all pertinent customer data.
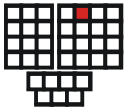
10.1.4.5 Cross/Up Selling

Process Name: Cross/Up Selling

Process Identifier: 1.F.1.4.5

Brief Description: Ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products.

Extended Description: The purpose of this process is to ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products. The ongoing analysis of customer trends (e.g., usage, problems, complaints) is used to identify when the current offerings may no longer be appropriate for the customer, or when the opportunity for a larger sale arises. Based on the data collected, more appropriate offerings should be recommended to the customer.

10.1.5 Order Handling (CRM – F)

Process Identifier: 1.F.1.5

Brief Description: Responsible for accepting and issuing orders.
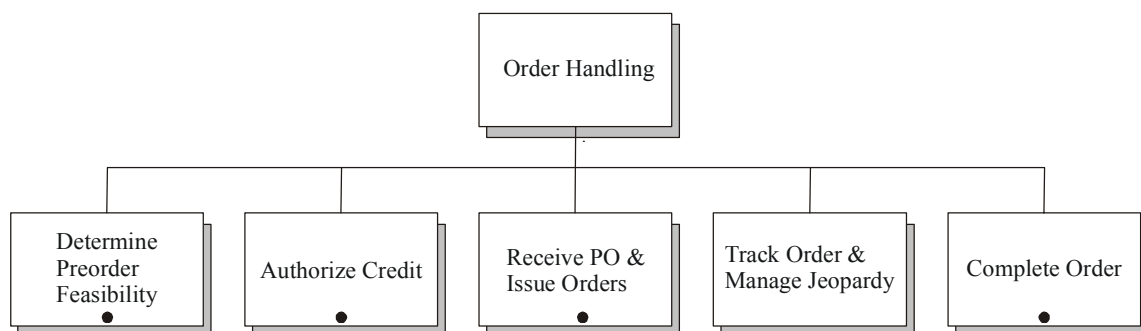
M.3050-2_F21

Figure 21/M.3050.2 – Order Handling decomposition into Level 3 processes

10.1.5.1 Determine PreOrder Feasibility
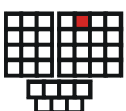
Process Name: Determine PreOrder Feasibility

Process Identifier: 1.F.1.5.1

Brief Description: Check the availability and/or the feasibility of providing non-standard product(s) and/or special solutions on standard product(s) to a customer.

Extended Description: The purpose of this process is to check the availability and/or the feasibility of providing non-standard product(s) and/or special solutions on standard product(s) to a customer.

10.1.5.2 Authorize Credit
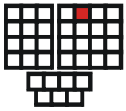
Process Name: Authorize Credit

Process Identifier: 1.F.1.5.2

Brief Description: Assess a customer's credit worthiness in support of managing customer risk and company exposure to bad debt.

Extended Description: The purpose of this process is to assess a customer's credit worthiness in support of managing customer risk and company exposure to bad debt. This process is responsible for initiating customer credit checks and for authorizing credit and credit terms in accordance with established enterprise risk and policy guidelines.

10.1.5.3 Receive PO and Issue Orders

Process Name: Receive PO and Issue Orders

Process Identifier: 1.F.1.5.3

Brief Description: Validate Purchase Order received and issue correct and complete service orders to be completed.

Extended Description: This process is responsible for validating the Purchase Order received and issuing correct and complete service orders to be completed.

10.1.5.4 Track Order & Manage Jeopardy
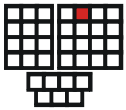
Process Name: Track Order & Manage Jeopardy

Process Identifier: 1.F.1.5.4

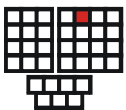Brief Description: Track the status of the customer's purchase/service request order and ensure the order is being undertaken to meet the agreed committed date.

Extended Description: The purpose of this process is to track the status of the customer's purchase/service request order and ensure that the procedures associated with the order are being undertaken within the time required to meet the committed date agreed with the customer. This process is responsible for tracking a purchase/service request order after the order commitment has been agreed with a customer. It initiates mechanisms to check the progress of all components of the order and to update the status as changes occur. It is also responsible for initiating actions if the order completion plan is in danger of not being kept and/or if the agreed order completion date deviates from the date originally scheduled. It terminates tracking the order when the order has been completed or cancelled.

10.1.5.5 Complete Order
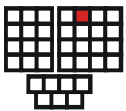
Process Name: Complete Order

Process Identifier: 1.F.1.5.5

Brief Description: Manage customer information and interactions after customer contracts or customer Service Orders have been finalized and during the Order Completion phase.

Extended Description: The purpose of this process is to focus on customer information and interactions after customer contracts or customer Service Orders have been

finalized and during the Order Completion phase. The customer may want to initiate changes, even after committing. The customer may participate in commissioning or end-to-end testing and then satisfactory delivery. The customer is trained in the functionality and benefits of the solution. Validation of any changes occurring after Contact/Order commitment may be needed to ensure that post-sales Processes will start up correctly.

10.1.6 Problem Handling (CRM – A)
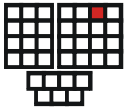
Process Identifier: 1.A.1.6

Brief Description: Responsible for receiving trouble reports from customers, resolving them to the customer's satisfaction and providing meaningful status on repair and/or restoration activity to the customer.

M.3050-2_F22
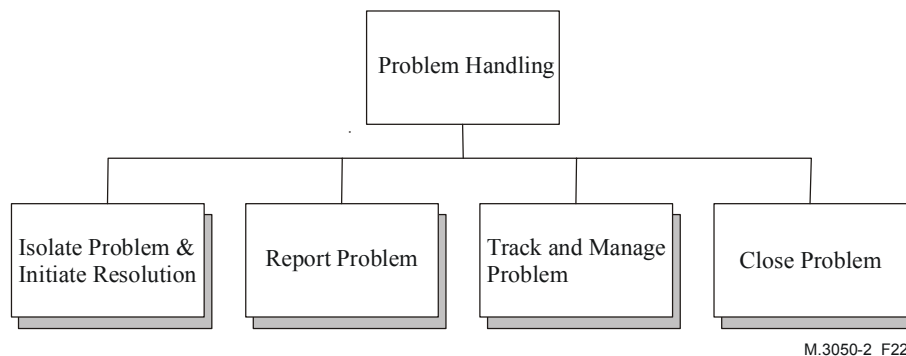
Figure 22/M.3050.2 – Problem Handling decomposition into Level 3 processes

10.1.6.1 Isolate Problem & Initiate Resolution
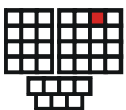
Process Name: Isolate Problem & Initiate Resolution

Process Identifier: 1.A.1.6.1

Brief Description: Receive & isolate problem and initiate resolution actions.

Extended Description: The purpose of this process is:

• to register and analyse received trouble reports from customer;

• to register received information about customers impacted by service affecting problems, and reported problem information;

• to isolate the source/origin of the problem in order to determine what actions have to be taken; and

• to initiate the resolution of the problem.

10.1.6.2 Report Problem
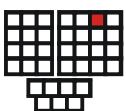
Process Name: Report Problem

Process Identifier: 1.A.1.6.2

Brief Description: Generate and manage all reports related to problems that will be issued to the customer and/or to other processes.

Extended Description: The purpose of this process is to generate and manage all reports related to problems that will be issued to the customer and/or to other processes.

10.1.6.3   Track and Manage Problem
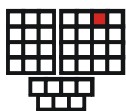
Process Name: Track and Manage Problem

Process Identifier: 1.A.1.6.3

Brief Description: Track and manage the evolution of the problem during its lifecycle.

Extended Description: The purpose of this process is to track and manage the evolution of the problem during its lifecycle.

The process can proactively or passively obtain information about a problem state, get its attributes or obtain its archived form after its closure. Moreover, the process is responsible for the management of the escalation of the problem, if jeopardy status occurs.

10.1.6.4   Close Problem
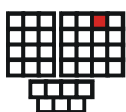
Process Name: Close Problem

Process Identifier: 1.A.1.6.4

Brief Description: Ensure that a problem affecting the customer is solved.

Extended Description: The purpose of this process is to ensure that a problem affecting the customer is solved, that possibly the customer is contacted to inquire about the customer's satisfaction with resolution of the problem and to agree to correct reporting on SLA/QoS violations.

10.1.7   Customer QoS/SLA Management (CRM – A)
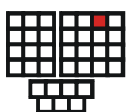
Process Identifier: 1.A.1.7

Brief Description: Monitoring, managing and reporting of delivered vs contractual Quality of Service (QoS), as defined in the enterprise's service descriptions, customer contracts or product catalogue.
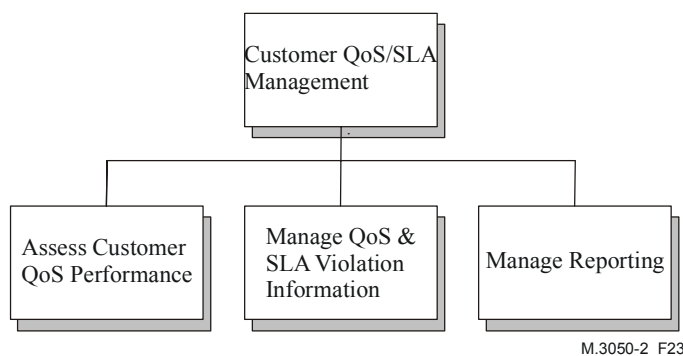
**Figure 23/M.3050.2 – Customer QoS/SLA Management
decomposition into Level 3 processes**

10.1.7.1   Assess Customer QoS Performance
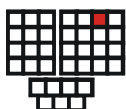
Process Name: Assess Customer QoS/SLA Performance

Process Identifier: 1.A.1.7.1

Brief Description: Manage the overall customer QoS/SLA performance to ensure contractual obligations are being met.

Extended Description: The purpose of these processes is to manage the overall customer QoS/SLA performance. These processes are responsible for ensuring that the

QoS received by the customer meets the contractual obligations agreed with the customer. They check that the QoS data that they receive from other processes and entities meet the required QoS thresholds and they alert other processes and entities if this is not the case. They are responsible for maintaining an overview of the customer's product quality, and for carrying out performance reviews with the customer, as well as for undertaking any preparatory and/or follow-up steps with other processes/entities in conjunction with such reviews.

10.1.7.2 Manage QoS/SLA Violation
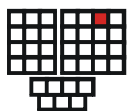
Process Name: Manage QoS/SLA Violation

Process Identifier: 1.A.1.7.2

Brief Description: Ensure that the customer and the relevant internal processes are informed of service quality degradations and violations and that action is undertaken to resolve the degradation or violation.

Extended Description: The purpose of these processes is to ensure that the customer and the relevant internal processes are informed of service quality degradations and violations and that action is undertaken to resolve the degradation or violation. They analyse all the information related to a QoS/SLA degradation or violation and take the appropriate actions when a soft threshold is crossed or the agreed QoS is violated. They follow up the actions to ensure that the customer is satisfied with the resolution of the problem. They ensure that the customer is informed of any planned maintenance or other scheduled events likely to impact delivery of the customer's service.

10.1.7.3 Manage Reporting
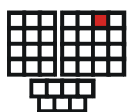
Process Name: Manage Reporting

Process Identifier: 1.A.1.7.3

Brief Description: Report on the customer's QoS/SLA performance.

Extended Description: The purpose of these processes is to report on the customer's QoS/SLA performance, to manage the production and presentation of reports to the customer on service levels in the form and at the times agreed with the customer, to prepare reports for internal processes and to respond to specific inquiries on the performance of the customer service.

10.1.8 Billing & Collections Management (CRM – B)
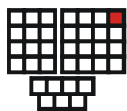
Process Identifier: 1.B.1.8

Brief Description: Ensure that enterprise revenue is billed and collected.
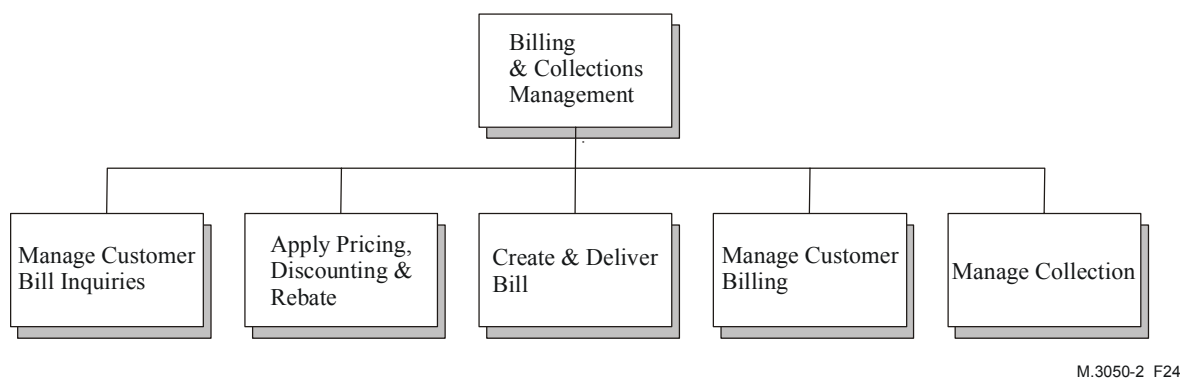
**Figure 24/M.3050.2 – Billing & Collections Management
decomposition into Level 3 processes**

10.1.8.1 Manage Customer Bill Inquiries
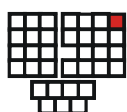
Process Name: Manage Customer Bill Inquiries

Process Identifier: 1.B.1.8.1

Brief Description: Ensure the timely and effective fulfilment of all customer bill inquiries and the resolution of customer/Service Provider billing issues.

Extended Description: The purpose of this process is to ensure the timely and effective fulfilment of all customer bill inquiries and the resolution of customer/Service Provider billing issues. This process is responsible for managing customer interaction as it relates to a customer's billing relationship to a Service Provider. This includes fulfiling inquiries against the customer's billing account(s), handling disputes from the customer with regard to its billing records and resolving billing disputes between the customer and Service Provider. This process can be viewed via traditional means, with a service representative managing the customer or via e-business means. In the latter case, inquiries, issues and communication of resolution would be handled via electronic media without the intervention of a representative.

10.1.8.2 Apply Pricing, Discounting & Rebate
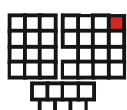
Process Name: Apply Pricing, Discounting & Rebate

Process Identifier: 1.B.1.8.2

Brief Description: Ensure that the customer receives an invoice that is reflective of all the billable events delivered by the Service Provider as per the business relationship between the customer and the Service Provider.

Extended Description: The purpose of this process is to ensure that the customer receives an invoice that is reflective of all the billable events delivered by the Service Provider as per the business relationship between the customer and the Service Provider. In addition, it ensures that the appropriate taxes, rebates (i.e., missed customer commitments) and credits are applied to the customer's invoice(s). This process contains the account and customer specific pricing, charges, discounting, credits and taxation for services delivered to the customer by the Service Provider. It accepts events that have been collected, translated, correlated, assembled, guided and service rated. It takes these events and determines the account or customer specific pricing, charges, discounts, and taxation that should be delivered to the invoice(s) for the customer. This process can occur in real-time as events are service rated, or can be on a scheduled on a periodic basis at the Service Provider's discretion.

10.1.8.3   Create & Deliver Bill
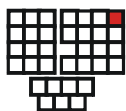
Process Name: Create & Deliver Bill

Process Identifier: 1.B.1.8.3

Brief Description: Production of a timely and accurate invoice reflective of the charges for services delivered to the customer by the Service Provider and respective trading partners.

Extended Description: The primary purpose of this process is the production of a timely and accurate invoice reflective of the charges for services delivered to the customer by the Service Provider and respective trading partners. This process contains the invoicing components of the Service Provider's business. This includes the design and development of the Service Provider's invoicing process, the rendering of an invoice, the delivery of an invoice to customers and the processes that verify invoice quality prior to customer distribution. The flow of this process can be viewed as an extension of the company's e-business strategy. In this case, the Service Provider would render an invoice electronically, via the Internet for example, and potentially trigger a payment from the customer's credit card electronically.

Furthermore, this process provides specifications for the formatting of invoices in different ways and to achieve different publishing possibilities and supports the creation of different invoice formats for different publication media.

10.1.8.4   Manage Customer Billing
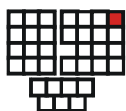
Process Name: Manage Customer Billing

Process Identifier: 1.B.1.8.4

Brief Description: Ensure effective management of the customer's billing account.

Extended Description: The primary purpose of this process pertains to effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle. This process focuses on managing changes to the customer's billing account (such as change of address, etc.) as well as managing the customer's service portfolio, such as ensuring that the correct products are assigned to the customer's account for accurate billing.

10.1.8.5   Manage Collection
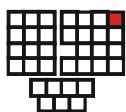
Process Name: Manage Collection

Process Identifier: 1.B.1.8.5

Brief Description: Collect payments made by the customer and match to invoices.

Extended Description: The purpose of this process is to collect payments made by the customer. Furthermore this process is meant to match these payments with the services/invoices delivered to this customer. This process is also meant to manage the amount due from the customer, i.e., check whether the payments are made in time. If not so, this might result in putting the customer on hold.

10.1.9   Retention & Loyalty (CRM – FAB)

Process Identifier: 1.FAB.1.9

Brief Description: Manage all functionalities related to the retention of acquired customers, and the use of loyalty schemes in the potential acquisition of customers.
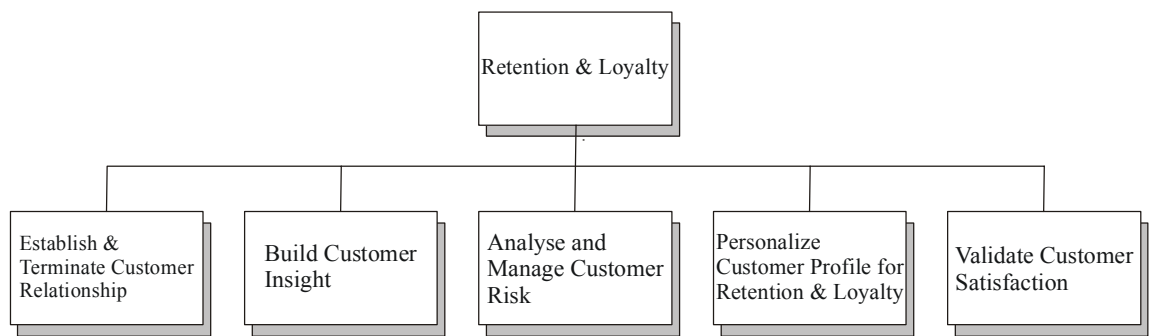
M.3050-2_F25

Figure 25/M.3050.2 – Retention and Loyalty decomposition into Level 3 processes

10.1.9.1 Establish & Terminate Customer Relationship
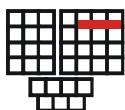
Process Name: Establish & Terminate Customer Relationship

Process Identifier: 1.FAB.1.9.1

Brief Description: Verify the customer identity, manage the customer identity across the Enterprise, and manage termination as appropriate.

Extended Description: The purpose of this process is to verify that the customer is who they claim they are. To ensure only one customer identity exists across the Enterprise, which can be referenced across the whole Enterprise and allows the customer to quickly and easily identify himself. The customer relationship is terminated only if actually appropriate, the wishes of the customer are complied with where possible, records are kept in case the relationship with the customer is re-established, legal and ethical requirements for customer information are complied with. Before establishing an identity for a new customer, it is essential to check that the customer does not already have an Identity with the Enterprise. Establish and verify the Identity, issue a unique Identifier and Authentication information.

Significant customer life-stage events or business decisions by the Service Provider cause one or both parties to terminate the relationship. The need for complete termination of relationships needs to be differentiated from just terminating all services. The principles behind this include the Service Provider ending a relationship only if the customer ceases to exist, or the customer is fraudulent, the Enterprise decides that it no longer wishes to do business with the customer.

This process is also used to 'clean-up' duplicates of customer identifying information that may exist within the organization.

Profile and preference information for terminated customer relationships is archived if acceptable to the customer. All relevant parties are informed of the ended relationship. Other processes are triggered to dismantle the customer solution and servicing arrangements as necessary.

10.1.9.2 Build Customer Insight
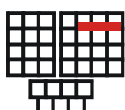
Process Name: Build Customer Insight

Process Identifier: 1.FAB.1.9.2

Brief Description: Ensure that Service Provider and the customer feel confident that the relationship is founded on up-to-date, accurate and legally compliant information.

Extended Description: The purpose of this process is to ensure that Service Provider

and the customer feel confident that the relationship is founded on up-to-date, accurate and legally compliant information. The Service Provider will incorporate into the customer profile, all relevant information gathered through all contacts with the customer (usage pattern, demographics, life stage, household, community of interest, business direction). Customer and market information from other sources may be gathered, which will build a better understanding of the customer. Customer Information must be made available to any process that needs to access it. This customer information will be used to continually refine the means and style of interaction, and the solution sets and customer experience offered.

10.1.9.3   Analyse and Manage Customer Risk

Process Name: Analyse and Manage Customer Risk

Process Identifier: 1.FAB.1.9.3

Brief Description: Ensure that a consistent customer risk assessment is used across the Enterprise Risk based on information collected from all processes.

Extended Description: The purpose of this process is to ensure that Risk analysis is based on information collected from all processes and that consistent risk assessment is used across the Enterprise. Its purpose is also to track and improve Opera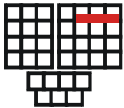tions, target and win the right customers, improves Sales Conversion rate. It determines the credit risk, fraud risk, influence risk, and churn risk. It identifies treatments to manage these risks and focuses on using customer information.

10.1.9.4   Personalize Customer Profile for Retention & Loyalty
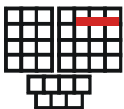
Process Name: Personalize Customer Profile for Retention & Loyalty

Process Identifier: 1.FAB.1.9.4

Brief Description: Provide the personalization opportunities for customers that will encourage them not to switch to another Service Provider.

Extended Description: The purpose of this process is to provide the personalization opportunities for customers that will encourage them not to switch to another Service Provider. Personalization allows delivery of services that more closely match the customer's need. Collection of Personalization Information also discourages switching since the customer would have to build up the same Personalized experience with the next Service Provider.

Business Planning is essential to allow the Service Provider to match the customer's future retention needs and potential acquisition needs, rather than just continuing with today's known needs.

Loyalty schemes allow tangible benefits to be offered to good customers in a mass-market.

The process aims to ensure that all information is gathered and used to make the best decisions to retain those customers the Service Provider wants to retain, heighten satisfaction and maintain profitability.

This process provides a source of data for performing loyalty and retention marketing campaigns, for retaining existing customers, promoting customer loyalty, winning back customers who have left. It utilizes predictive modelling software to analyse an account, and to return relevant scores, such as: churn score, up-sell score, cross-sell score, bad debt score and customer lifetime value score. Moreover, it utilizes scores for customer analysis and marketing campaign purposes.

10.1.9.5 Validate Customer Satisfaction
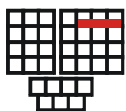
Process Name: Validate Customer Satisfaction

Process Identifier: 1.FAB.1.9.5

Brief Description: Validate that predicted/expected value is delivered by the solution and initialize the after-sales processes (billing and assurance).

Extended Description: The purpose of this process is to validate that predicted/expected value is delivered by the solution and that the after-sales processes (billing and assurance) are initialized. It validates that the customer is capable of realizing maximum value from the operation or use of the solution and that intense Provider involvement is no longer needed to manage the solution.

This process ensures that the customer is satisfied that the solution that was actually delivered meets original or updated expectations and agreements and that the solution is operable by the customer.

10.2 Service Management & Operations (SM&O) Processes
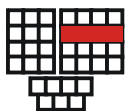
Process Identifier: 1.OFAB.2

This horizontal functional process grouping focuses on the knowledge of services (Access, Connectivity, Content, etc.) and includes all functionalities necessary for the management and operations of communications and information services required by or proposed to customers. The focus is on service delivery and management as opposed to the management of the underlying network and information technology. Some of the functions involve short-term service capacity planning for a service instance, the application of a service design to specific customers or managing service improvement initiatives. These functions are closely connected with the day-to-day customer experience.

The processes in this horizontal functional process grouping are accountable to meet, at a minimum, targets set for Service Quality, including process performance and customer satisfaction at a service level, as well as Service Cost.

The eTOM framework differentiates day-to-day operations and support from planning and development and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.

Figure 26/M.3050.2 – Service Management & Operations decomposition into Level 2 processes

10.2.1   SM&O Support & Readiness (SM&O – OSR)
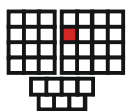
Process Identifier: 1.O.2.1

Brief Description: Manage classes of services ensuring that the appropriate capability is available and ready to instantiate and manage service instances.
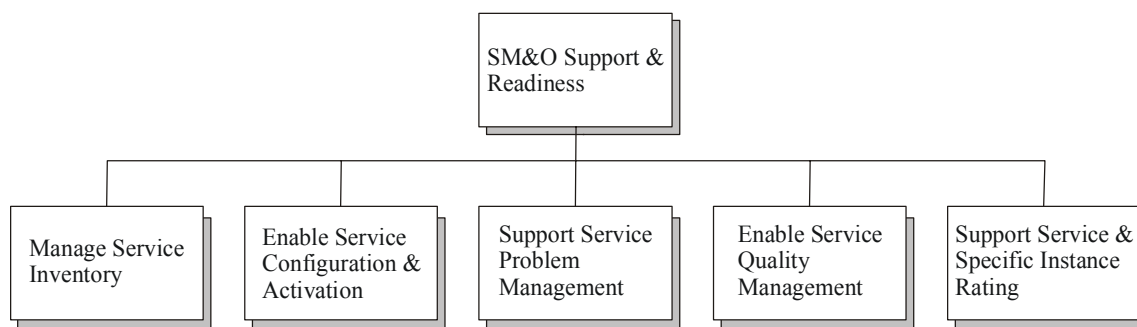
M.3050-2_F27

Figure 27/M.3050.2 – SM&O Support & Readiness decomposition into Level 3 processes

10.2.1.1   Manage Service Inventory
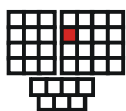
Process Name: Manage Service Inventory

Process Identifier: 1.O.2.1.1

Brief Description: Manage the administration of the enterprise's service inventory.

Extended Description: Manage service Inventory processes, which support all SM&O and SD&M processes, manage the administration of the enterprise's service inventory, as embodied in the Service Inventory Database.

These processes ensure the Service Inventory Database is updated with currently deployed services, and they also manage their association with resources, through interaction with Manage Resource Inventory processes.

10.2.1.2   Enable Service Configuration & Activation
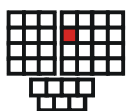
Process Name: Enable Service Configuration & Activation

Process Identifier: 1.O.2.1.2

Brief Description: Ensure that service capacity is available to the Service Configuration & Activation processes for allocation to a customer when an order arrives.

Extended Description: Enable Service Configuration & Activation processes ensure that service capacity is available to the Service Configuration & Activation processes for allocation to a customer when an order or reconfiguration request arrives. They are responsible for applying service capacity rules from Infrastructure Lifecycle Management processes and ensuring the availability of the resources required for configuring a service. In order to maintain the satisfactory operation of the service or to add service-specific capacity, these processes might undertake reconfiguration activities or trigger the Infrastructure Lifecycle Management processes in order to create service capacity rules.

10.2.1.3 Support Service Problem Management
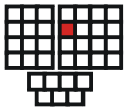
Process Name: Support Service Problem Management

Process Identifier: 1.O.2.1.3

Brief Description: Ensure that the availability of service class is maintained in order to prevent customers from being affected by service problems.

Extended Description: Support Service Problem Management processes ensure that the availability of service classes is maintained in order to prevent customers from being affected by service problems. They deal with statistical trouble analysis, maintenance scheduling, chronic failure analysis, etc., and initiate corrective actions.

10.2.1.4 Enable Service Quality Management
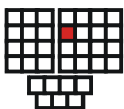
Process Name: Enable Service Quality Management

Process Identifier: 1.O.2.1.4

Brief Description: Ensure that a specific service class is performing according to specific quality requirements.

Extended Description: Enable Service Quality Management processes ensure that a specific service class is performing according to specific quality requirements. They support Service Quality Management by monitoring and maintaining service classes proactively according to key service quality indicators, whether technical, time, economic or process related. The objective of these processes is to maintain over time the quality of the different service classes. Therefore, they provide a longer-term analysis of service quality than the analysis performed by, for example, Service Quality Management.

Responsibilities of the Enable Service Quality Management processes include, but are not limited to:

- Analysing performance over time of service classes to identify problems not recognizable directly in FAB processes.
- Demand balancing in order to maintain service quality.
- Initializing appropriate actions to improve service class quality where required.

The Enable Service Quality Management processes work with basic information received from the Enable Resource Performance Management and the Service Performance Management processes, which have already undertaken initial analysis.

10.2.1.5 Support Service & Specific Instance Rating
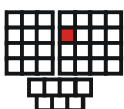
Process Name: Support Service & Specific Instance Rating

Process Identifier: 1.O.2.1.5

Brief Description: Ensure that rating and tariff information is maintained for each service class, for use by Service & Specific Instance Rating.

Extended Description: Support Service & Specific Instance Rating processes ensure that rating and tariff information is maintained for each service class, for use by Service & Specific Instance Rating. They are also responsible for the processing of this information related to administration of the services.

10.2.2 Service Configuration & Activation (SM&O – F)
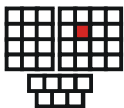
Process Identifier: 1.F.2.2

Brief Description: Responsible for the installation and configuration of the service for customers, including the installation of customer premises equipment.

M.3050-2_F28
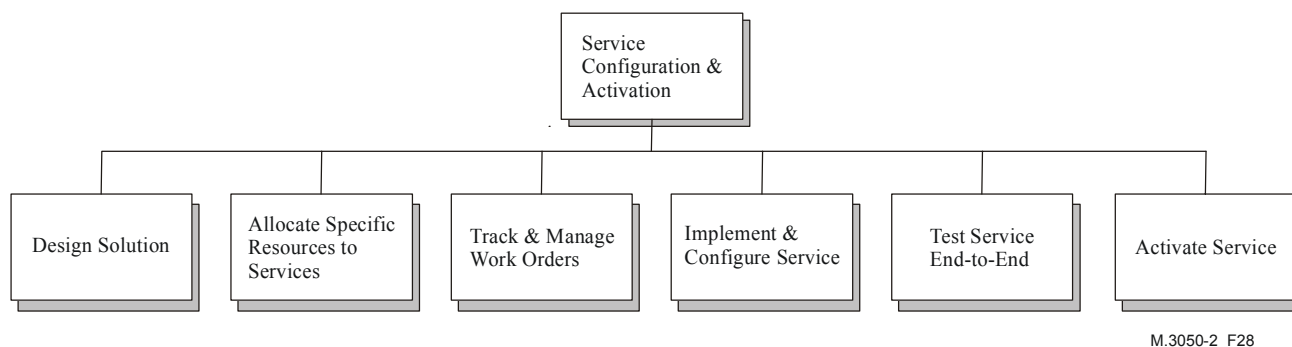
Figure 28/M.3050.2 – Service Configuration & Activation decomposition into Level 3 processes

10.2.2.1 Design Solution
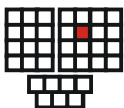
Process Name: Design Solution

Process Identifier: 1.F.2.2.1

Brief Description: Provide a system architecture which complies to a particular customer requirement.

Extended Description: The purpose of the Design Solution processes is to provide a system architecture which complies with a particular customer requirement.

- Accept requests for solution design for a particular customer product or service, including customer premises equipment. Investigates suitability for operational methods, resource assignments and pre-order feasibility.

- This is the first step in building technical resources, functional and operational details of the service.

- Imply an implementation plan considering training and maintenance needs, such as supporting with proper parameter information the Service Quality Management process.

- Consider current and future resources infrastructure, and also expected solution results, budget, duration and risks.

- Assessed by a time schedule according with customer requirements.

- Ensure service and provisioning efficiency.

- Check a rapid time-to-revenue on resource investment.

- Support with a detailed design to the Implement & Configure Service process and the Allocate Specific Resources to Services processes and provides appropriate service quality parameters to be measured by the Service Quality Management processes.

10.2.2.2   Allocate Specific Resources to Services
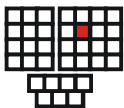
Process Name: Allocate Specific Resources to Services

Process Identifier: 1.F.2.2.2

Brief Description: Issue identifiers for new services and to manage identifier pools for services.

Extended Description: The purpose of the Allocate Specific Resources to Services processes is to issue identifiers for new services and to manage identifier pools (blocks, ranges and subnetting) for services (e.g., phone numbers, IP address, voice mailbox number, etc.).

- The allocation of resources depends on SLA agreements and resource infrastructure; information that is supported through the Order Handling process into the Design Solution processes.
- Establish communication with the Resource Provisioning processes in order to request resource availability and activation.
- Once resources have been allocated, communication will also be established with the Track & Manage Work Orders processes.

10.2.2.3   Track & Manage Work Orders
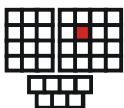
Process Name: Track & Manage Work Orders

Process Identifier: 1.F.2.2.3

Brief Description: Launch all the operational tasks needed to fix each solution requirement.

Extended Description: The purpose of the Track & Manage Work Orders processes is to launch all the operational tasks needed to fix each solution requirement.

The information flow associated with these processes includes the communication with the Supplier/Partner in order to accept requests for service configuration, service configuration changes, and/or for additional resource capacity.

- Coordinate the different internal and external activities.
- Maintain the efficiency between tasks to preserve the scheduled plans.
- Control the internal and external work orders information feedback.
- Act as a trigger for network orders with the supplied information.
- Interact with the S/P Relationship Management processes.
- Notify the Implement & Configure Service processes once the orders are completed.

10.2.2.4   Implement & Configure Service
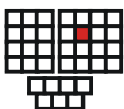
Process Name: Implement & Configure Service

Process Identifier: 1.F.2.2.4

Brief Description: Deliver a final configuration, which is optimal for customer service requirements.

Extended Description: The purpose of the Implement & Configure Service processes is to deliver a final configuration, which is optimal for customer service requirements.

These processes install, configure and reconfigure services for specific customers, including customer premises equipment.

- Assess further adjustments and modifications if needed.
- Receive operational information from the Design Solution processes.
- Support the Test Service End-to-End processes with service details for testing.
- If the service does not perform as expected when the Test Service End-to-End or the Activate Service Processes have completed, a change request may be issued to the Design Solution processes.

10.2.2.5 Test Service End-to-End
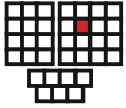
Process Name: Test Service End-to-End

Process Identifier: 1.F.2.2.5

Brief Description: Ensure all components are operational, and that the service is working to agreed levels before its activation for the customer.

Extended Description: The purpose of the Test Service End-to-End processes is to ensure all components are operational, and that the service is working to agreed levels before its activation for the customer.

This purpose is performed through testing the service end-to-end as far as possible.

- Guarantee that the customer receives the expected service before launch.
- Guarantee appropriate resources stability.
- Check functionality and correct service parameters and performance.
- Notify the Implement & Configure Service processes if tests failed.
- Notify the Activate Service processes once the tests are considered completed.

10.2.2.6 Activate Service
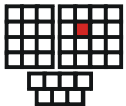
Process Name: Activate Service

Process Identifier: 1.F.2.2.6

Brief Description: Trigger the end-to-end activation/deactivation of all installed elements.

Extended Description: The purpose of the Activate Service processes is to trigger the end-to-end activation/deactivation of all installed elements. These processes also include additional functions such as reporting configuration completion to client processes as well as updating and maintaining the customer's network records, and service infrastructure records.

- Minimize operational load to assure the best compliance with service agreements or KPIs.
- Ensure activation processes are executed as rapid, easy and accurate as possible.
- Support the Test Service End-to-End process with service details for testing and receives its result feedback. Analyses the collected records to adjust the appropriate service parameters for optimal service efficiency.
- Supply information to face future customer requirements.
- Feed information back to the Implement & Configure Service processes about corrective actions to take if the service does not perform as expected.
- Indicate service details for assurance purposes to the Service Problem Management process.

10.2.3 Service Problem Management (SM&O – A)
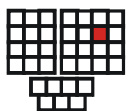
Process Identifier: 1.A.2.3

Brief Description: Respond immediately to customer-affecting service problems or failures in order to minimize their effects on customers, and to invoke the restoration of the service, or provide an alternate service as soon as possible.
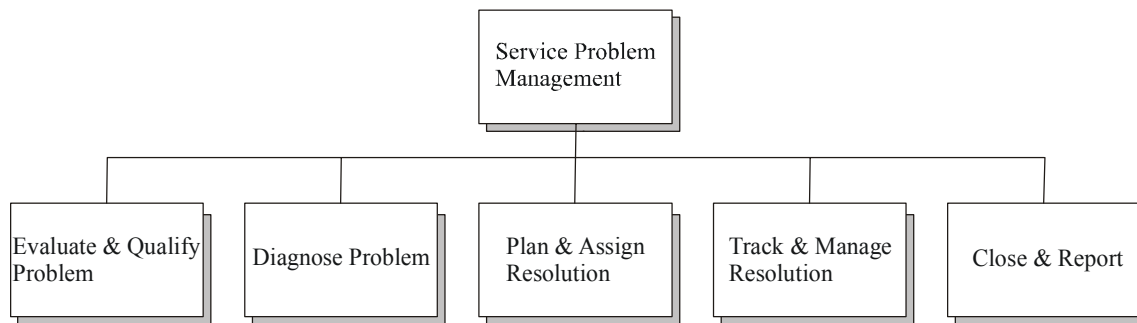
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Figure 29/M.3050.2 – Service Problem Management decomposition into Level 3 processes

10.2.3.1 Evaluate & Qualify Problem
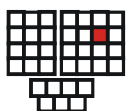
Process Name: Evaluate & Qualify Problem

Process Identifier: 1.A.2.3.1

Brief Description: Determine the nature of a problem that has been reported by a customer and whether the customer is using the service properly.

Extended Description: The purpose of the Evaluate & Qualify Problem processes is to determine the nature of a problem that has been reported by a customer and whether the customer is using the service properly.

There will be testing to fit or translate customer information into service information for diagnosis. If there is a S/P problem notification, a resource problem notification or a service-affecting event report (alarms, etc.) the Evaluate & Quality Problem processes will analyse this information and translate these problems into their impact on customers. These processes will make the necessary reports to inform the Problem Handling processes about the estimated time to restore service. Also the Customer QoS/SLA Management processes will be informed about the problem's impact on the service performance.

- Imply internal and external resources such as partner consultancy.
- Supply the necessary information for diagnosis and critical level to trigger possible actions to take.
- Guarantee the fastest response once the service problem is notified.
- Receive a trouble ticket problem report from the Problem Handling processes.
- Responsible for indicating an estimated time to repair to the Problem Handling processes.
- Receive requests for reconfiguration related to service problem restoration needs detected by the Service Quality Management processes.
- Receive Quality of Service violation information and reports on impacted service performance to the Customer QoS/SLA Management processes.

10.2.3.2   Diagnose Problem
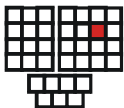
Process Name: Diagnose Problem

Process Identifier: 1.A.2.3.2

Brief Description: Isolate the root cause of the problem.

Extended Description: The purpose of the Diagnose Problem processes is to isolate the root cause of the problem. To achieve this, it performs the appropriate tests and/or queries for information. These processes perform a problem escalation to report the severity and, if necessary, to solve the incident.

- Imply internal and external resources.
- Choose the most rapid and efficient action between a possible plan.
- Collect the information to optimize future diagnosis tasks.
- These processes may also correlate the problems in order to find common causes.
- Report with diagnosis information to the Plan & Assign Resolution process.

10.2.3.3   Plan & Assign Resolution
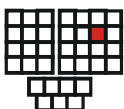
Process Name: Plan & Assign Resolution

Process Identifier: 1.A.2.3.3

Brief Description: Identify in a functional plane the necessary steps in order to activate the different units which will be involved to fix the problem.

Extended Description: The purpose of the Plan & Assign Resolution processes is to identify in a functional plane the necessary steps in order to activate the different units which will be involved to fix the problem.

According to the information provided by the Diagnosis Problem process, these processes will prepare the plan for resolution of the problem, splitting the resolution work into tasks, and establishing the appropriate task execution sequence, identifying other parties responsible if necessary. This may also include assigning resources as well as dispatching the necessary work orders.

- Receive information related to the root cause of the problem and final solution.
- Set a time scheduled plan associating escalation procedures.
- Report the restoration information update to the Problem Handling processes.

10.2.3.4   Track & Manage Resolution
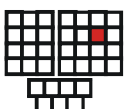
Process Name: Track & Manage Resolution

Process Identifier: 1.A.2.3.4

Brief Description: Ensure that the whole resolution is completed according to the established plan.

Extended Description: The purpose of the Track & Manage Resolution processes is to ensure that the whole resolution is completed according to the established plan.

These processes perform the necessary tracking of the execution progress. Trouble reports will be made for the responsible parties. This process will coordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence.

- Establish corrective actions with Plan & Assign Resolution process in case of need.

- Support with reconfigurations requests to Service Configuration & Activation processes.

- When needed, report to S/P Problem Reporting & Management process using trouble ticketing and receive the solution once the problem is fixed.

- When needed, launch a request to restore to Resource Trouble Management process, which notifies a restoration completion when it is finished.

10.2.3.5   Close & Report
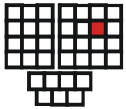
Process Name: Close & Report

Process Identifier: 1.A.2.3.5

Brief Description: Certify the recovery of the normal service performance.

Extended Description: The purpose of the Close & Report processes is to certify the recovery of the normal service performance. These processes will perform the necessary testing to achieve this purpose and make the necessary reports about the problem that occurred, the root cause and the activities carried out for restoration. It also will issue the trouble clearance report to inform the CRM layer.

- Automated tools may support the process to allow rapid communication between areas.

- Follow internal standard operational procedures, which may be optimized.

- Indicate problem status to the Customer QoS/SLA Management process.

- Close the trouble ticket opened by the Problem Handling process.

- Notify a service problem report to the Service Quality Management processes.

10.2.4   Service Quality Management (SM&O – A)
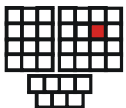
Process Identifier: 1.A.2.4

Brief Description: Encompasses monitoring, analysing and controlling the performance of the service perceived by customers.
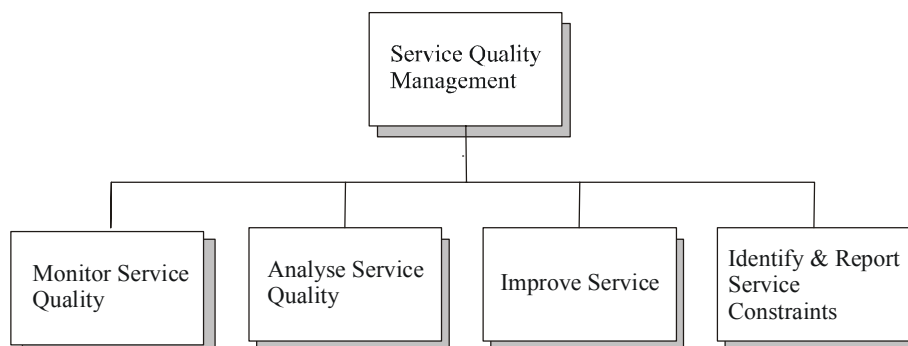
M.3050-2_F30

Figure 30/M.3050.2 – Service Quality Management decomposition into Level 3 processes

10.2.4.1 Monitor Service Quality
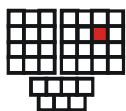
Process Name: Monitor Service Quality

Process Identifier: 1.A.2.4.1

Brief Description: Extract the necessary information to feed the different quality analysis processes.

Extended Description: The purpose of the Monitor Service Quality processes is to extract the necessary information to feed the different quality analysis processes.

These processes collect and store all quality indicators related to the service, such as congestion events and resource alarm events. The processes also perform automated service testing using simulated call simulating standard user behaviour, and collect data related to service usage which may supply information to other processes (i.e., marketing, service cost, etc.) and identify abnormal usage by the service users (i.e., bad passwords, terminal configurations, etc.).

- These processes may also check that any activated service has the proper quality measurement tools.
- Notify identified problems and scheduled maintenance to the Service Problem Management processes.
- Supply the information related to quality and usage data to the Analyse Service Quality processes.
- Receive resource alarms and statistics from the Resource Trouble Management processes.

10.2.4.2 Analyse Service Quality
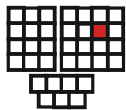
Process Name: Analyse Service Quality

Process Identifier: 1.A.2.4.2

Brief Description: Assess the effectiveness of the service by identifying the current quality level against forecast quality levels or specified KQIs.

Extended Description: The purpose of the Analyse Service Quality processes is to assess the effectiveness of the service by identifying the current quality level against forecast quality levels or specified KQIs.

Using the raw data from Service Quality Monitoring, these processes will correlate events in order to filter repetitive alarms and failure events that do not affect the quality delivered, and they will calculate key service quality indicators (such as Mean Time Between Failures and other chronic problems).

- Process the collected information and compare it to the KQIs established in quality and service specifications.
- Receive inputs related to quality and usage data and notify service problem resolution requirements to the Service Problem Management processes.
- Report key service quality indicators to the Improve Service processes.

10.2.4.3   Improve Service
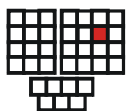
Process Name: Improve Service

Process Identifier: 1.A.2.4.3

Brief Description: Assess and recommend improvements using the information from Service Quality Analysis in order to improve and/or correct deviations from the forecast KQIs.

Extended Description: The purpose of the Improve Service processes is to assess and recommend improvements using the information from Service Quality Analysis in order to improve and/or correct deviations from the forecast KQIs. This recommendation will be passed to the customer layer, the resource layer or the Service Configuration & Activation Processes.

- Initiate improvement recommendations according to key service quality indicators for the Service Configuration & Activation associated.

- If necessary, the processes may request improvements from Resource Performance Management.

10.2.4.4   Identify & Report Service Constraints
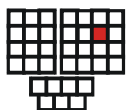
Process Name: Identify & Report Service Constraints

Process Identifier: 1.A.2.4.4

Brief Description: Identify constraints that can affect service quality standards.

Extended Description: The purpose of the Identify & Report Service Constraints processes is to identify constraints that can affect service quality standards. These constraints may include resource failures, capacity shortages due to unexpected demand peaks, etc. These processes send this information to the CRM layer in order to keep customers informed.

- Perform information tasks to keep customers informed through the Customer QoS/SLA Management processes.

- Report to the resource layer the collected and processed information.

10.2.5   Service & Specific Instance Rating (SM&O – B)
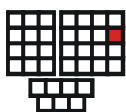
Process Identifier: 1.B.2.5

Brief Description: Manage service events by correlating and formatting them into a useful format.
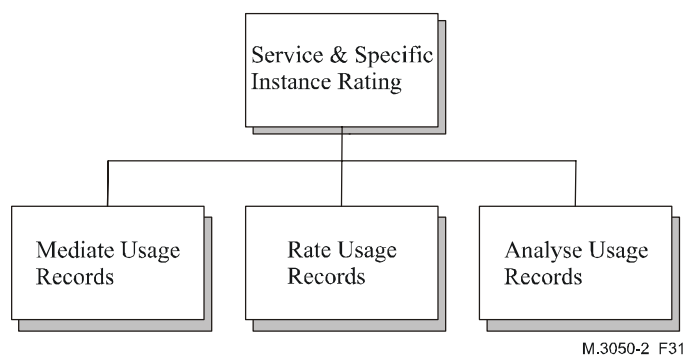
Figure 31/M.3050.2 – Service & Specific Instance Rating decomposition into Level 3 processes

10.2.5.1   Mediate Usage Records
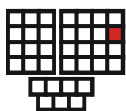
Process Name: Mediate Usage Records

Process Identifier: 1.B.2.5.1

Brief Description: Validate, normalize, convert and correlate usage records collected from the resource layer.

Extended Description: The purpose of the Mediate Usage Records processes is to validate, normalize, convert and correlate usage records collected from the resource layer. These processes also group usage records that relate to a specific service usage.

10.2.5.2   Rate Usage Records
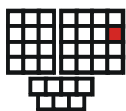
Process Name: Rate Usage Records

Process Identifier: 1.B.2.5.2

Brief Description: Identify and apply tariffs and charging algorithms to specific parameters encapsulated in usage records.

Extended Description: The purpose of the Rate Usage Records processes is to identify and apply tariffs and charging algorithms to specific parameters encapsulated in usage records in order to produce a charge that is then inserted in the usage record.

10.2.5.3   Analyse Usage Records
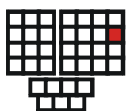
Process Name: Analyse Usage Records

Process Identifier: 1.B.2.5.3

Brief Description: Generate reports on usage records based on requests from other processes.

Extended Description: The purpose of the Analyse Usage Record processes is to generate reports on usage records based on requests from other processes. These processes produce reports that may identify abnormalities, which may be caused by fraudulent activity or related to customer complaints.

10.3   Resource Management & Operations (RM&O) processes

Process Identifier: 1.OFAB.3

This horizontal functional process grouping maintains knowledge of resources (application, computing and network infrastructures) and is responsible for managing all these resources (e.g., networks, IT systems, servers, routers, etc.) utilized to deliver and support services required by or proposed to customers. It also includes all functionalities responsible for the direct management of all such resources (network elements, computers, servers, etc.) utilized within the enterprise. These processes are responsible for ensuring that the network and information technologies infrastructure supports the end-to-end delivery of the required services. The purpose of these processes is to ensure that infrastructure runs smoothly, is accessible to services and employees, is maintained and is responsive to the needs, whether directly or indirectly, of services, customers and employees. RM&O also has the basic function to assemble information about the resources (e.g., from network elements and/or element management systems), and then integrate, correlate, and in many cases, summarize that data to pass on the relevant information to Service Management systems, or to take action in the appropriate resource.

In an e-business world, application and computing management are as important as management of the network resources. Moreover, network, computing and applications

resources must increasingly be managed in a joint and integrated fashion. To cope with these needs, the eTOM framework includes the Resource Management & Operations process grouping (together with the corresponding Resource Development & Management grouping within SIP), to provide integrated management across these three sets of resources: applications, computing and network. These areas also encompass processes involved with traditional Network Element Management, since these processes are actually critical components of any resource management process, as opposed to a separate process layer.

The RM&O processes thus manage the complete service provider network and sub-network and information technology infrastructures.

The eTOM framework differentiates day-to-day operations and support from planning and development, and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.

Figure 32/M.3050.2 – Resource Management & Operations decomposition into Level 2 processes

10.3.1   RM&O Support & Readiness (RM&O – OSR)
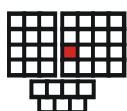
Process Identifier: 1.O.3.1

Brief Description: Manage classes of resources, ensuring that appropriate application, computing and network resources are available and ready to instantiate and manage resource instances.
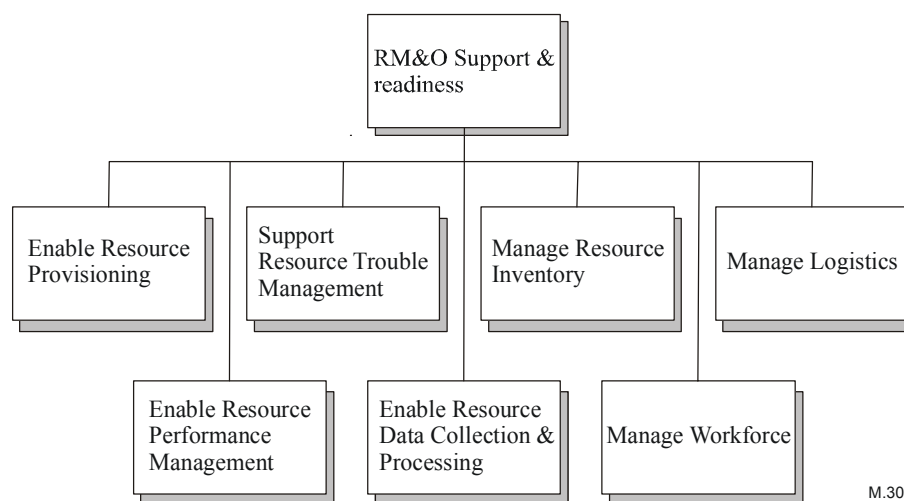
Figure 33/M.3050.2 – RM&O Support & Readiness decomposition into Level 3 processes

10.3.1.1 Enable Resource Provisioning (RM&O – OSR)
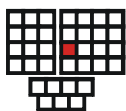
Process Name: Enable Resource Provisioning

Process Identifier: 1.O.3.1.1

Brief Description: Testing and acceptance of new resources as part of the handover procedure from the Resource Capability Delivery process to Operations.

Extended Description: Enable Resource Provisioning processes are responsible for testing and acceptance of new resources as part of the handover procedure from the Resource Capability Delivery process to Operations. They will prepare a group of resources to make them ready for service fulfilment. These same processes will also be triggered in order to restore repaired resources. If there is not enough resource capacity available to support services at any given time, these Enable Resource Provisioning processes attempt to make additional resources available by reconfiguring unused resources.

Upon successful testing and acceptance, the application, computing or network resources will be registered as being available to support an end-user service instance. Resource status will be updated in the Resource Knowledgebase, to reflect that the resource is available to support service instances.

10.3.1.2 Enable Resource Performance Management (RM&O – OSR)
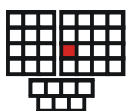
Process Name: Enable Resource Performance Management

Process Identifier: 1.O.3.1.2

Brief Description: Enable Resource Performance Management processes monitor and maintain resource classes proactively, according to performance parameters.

Extended Description: Enable Resource Performance Management processes support Resource Performance Management by monitoring and maintaining resource classes proactively according to performance parameters, whether technical, time, economic or process related. The objective of these processes is to maintain over time the performance of the different resource classes. Therefore, they provide a longer-term analysis of resource performance than the analysis performed by, for example, Resource Performance Management.

Responsibilities of the Enable Resource Performance Management processes include, but are not limited to:

• Analysing performance over time of resources or groups of resources, to identify problems not recognizable directly in FAB processes;

• Demand balancing in order to maintain resource performance.

The Enable Resource Performance Management processes work with basic information received from the Resource Data Collection & Processing processes. They also interact with Resource Performance Management processes that have already undertaken initial analysis.

Enable Resource Performance Management supports Support Service Quality Management.

10.3.1.3 Support Resource Trouble Management (RM&O – OSR)
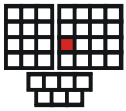
Process Name: Support Resource Trouble Management

Process Identifier: 1.O.3.1.3

Brief Description: Manage statistically driven preventative and scheduled maintenance activities, and repair activities.

Extended Description: The Support Resource Trouble Management processes cover statistically driven preventative and scheduled maintenance activities, and repair activities.

These processes are responsible for ensuring that the resources are working effectively and efficiently.

The objective of these processes is twofold:

- Proactively perform maintenance activities on resources to identify potential troubles with resources, preventing them from affecting services;
- Carry out repair activities.

The means by which Support Resource Trouble Management processes identify potential resource failures include, but are not limited to:

- Performing trend analysis on reports from Resource Trouble Management and Resource Performance Management;
- Triggering test processes in FAB and analysing the results.

The Support Resource Trouble Management processes do not interact directly with the resources, but rather stimulate other processes to identify potential resource failures. Reports are sent to Resource Trouble Management and Resource Performance Management Reporting for further analysis.

Resource Trouble Management and Resource Performance Management are then responsible for deciding on and carrying out the appropriate action/response to resource failure events. These actions/responses include sending requests to the Support Resource Trouble Management processes to carry out specific resource repair activities.

10.3.1.4 Enable Resource Data Collection & Processing (RM&O – OSR)
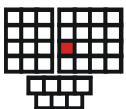
Process Name: Enable Resource Data Collection & Processing

Process Identifier: 1.O.3.1.4

Brief Description: Aggregate of network and information technology events on groups of resources, as well as resource class information, for traffic engineering and capacity planning.

Extended Description: Enable Resource Data Collection & Processing processes encompass the aggregation of network and information technology events on groups of resources, as well as resource class information, for traffic engineering and capacity planning.

The objective of these processes is to establish a view on the resource availability and available resource capacity and in particular to identify resources whose unavailability rate is higher than acceptable and resource classes that are continuously under stress. As such, they provide a longer-term analysis on resource data than the analysis performed by for example Resource Trouble Management and Resource Performance Management.

Responsibilities of the Enable Resource Data Collection & Processing processes include, but are not limited to:

- Resource availability analysis over time on resources or groups of resources, to identify Resource Trouble trends.

- Advising the Support Resource Trouble Management processes to focus on specific resources with availability problems.

- Resource performance analysis over time on resources or groups of resources, to identify capacity strains not recognizable directly in FAB processes.

- Demand balancing in order to maintain resource capacity.

The Enable Resource Data Collection & Processing processes work with basic information received from the Resource Data Collection & Processing processes and might also aggregate information received from Resource Performance Management, as well as Resource Trouble Management.

Enable Resource Data Collection & Processing supports Technology & Resource Plan & Commit.

10.3.1.5   Manage Resource Inventory (RM&O – OSR)
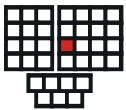
Process Name: Manage Resource Inventory

Process Identifier: 1.O.3.1.5

Brief Description: Manage the administration of the enterprise's resource inventory.

Extended Description: Manage Resource Inventory processes, which support all RM&O and RD&M processes, manage the administration of the enterprise's resource inventory, as embodied in the Resource Inventory Database.

These processes ensure the Resource Inventory Database is synchronized with the actual installed resource base. This can be achieved by means of audits and, if supported, auto-discovery mechanisms.

These processes also encompass the constant monitoring of the level of resource availability. If pre-set thresholds are exceeded, the resource will need to be registered in the Resource Inventory Database as no longer having spare capacity to meet service demands. This will either trigger the reconfiguration of unused resources or the build of additional resources through Resource & Operations Capability Delivery.

10.3.1.6   Manage Workforce (RM&O – OSR)
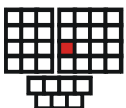
Process Name: Manage Workforce

Process Identifier: 1.O.3.1.6

Brief Description: Manage Workforce processes plan, assign, dispatch and manage the activities of staff employed by, or operating as part of, the enterprise (i.e., technicians, clerks, managers, etc.). The Manage Workforce processes also enable reporting and monitoring of assigned activities.

Extended Description: Manage Workforce processes plan, assign, dispatch and manage the activities of staff employed by, or operating as part of, the enterprise (i.e., technicians, clerks, managers, etc.). The Manage Workforce processes also enable reporting and monitoring of assigned activities.

These processes relate to staff activities wherever they apply across the enterprise (including activities within SIP and EM), not just those that directly relate to the results of the FAB processes. A particular focus for Manage Workforce concerns pools of

support staff – for example, technicians and other staff involved with installation, repair or similar activities. The specific position of Manage Workforce within the eTOM Operations area reflects this particular focus, but it is not intended for use only in this area of eTOM.

10.3.1.7 Manage Logistics
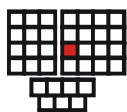
Process Name: Manage Logistics

Process Identifier: 1.O.3.1.7

Brief Description: Manage and control warehousing, logistics, stock level management, physical distribution and transport of purchased materials/goods.

Extended Description: The Manage Logistics processes manage and control warehousing, logistics, stock management, physical distribution and transport of purchased materials/goods. Warehousing & Materials Distribution Management processes manage all operational processes associated with the warehousing, storage and transport of purchased goods from the supplier to either warehouses or to site. The logistics/transport processes manage the coordination and control of transport infrastructure, including land, air and sea transport capabilities. The stock/inventory management processes manage the locations of, and levels of, stock/inventory holdings, including re-stocking as required. The stock/inventory management processes also manage the return of defective material from site or warehouse to the supplier for repair.

10.3.2 Resource Provisioning (RM&O – F)
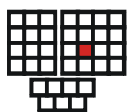
Process Identifier: 1.F.3.2

Brief Description: Allocate and configure resources to individual customer service instances in order to meet service requirements.
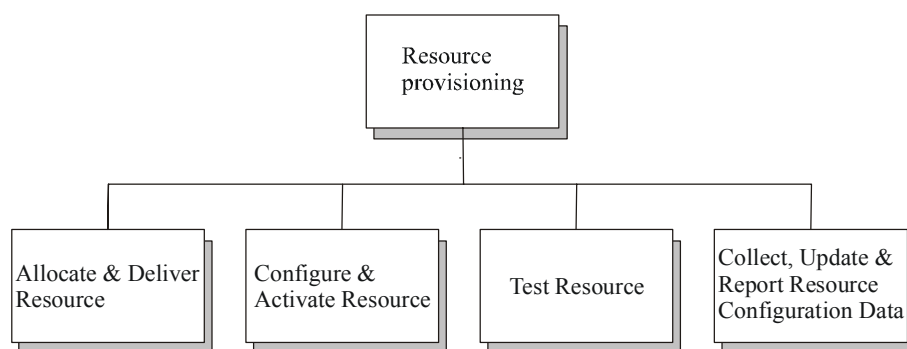
M.3050-2_F34

Figure 34/M.3050.2 – Resource Provisioning decomposition into Level 3 processes

10.3.2.1 Allocate & Deliver Resource (RM&O – F)
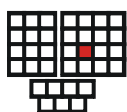
Process Name: Allocate & Deliver Resource

Process Identifier: 1.F.3.2.1

Brief Description: Identify resources required to support a specific Service Instance.

Extended Description: The objective of the Allocate & Deliver Resource processes is to identify resources required to support a specific Service Instance. Such allocation request can be placed as part of a pre-order feasibility check, to see whether there are adequate resources available to fulfil the request.

In addition, the Allocate & Deliver Resource processes will possibly ensure the appropriate resources are delivered to the appropriate location for installation and configuration. This may include, for example, a central office, a transmission room, or the customer premise.

These activities include but are not limited to:

- Placing an order for equipment or software with a Supplier/Partner.
- Receipt of the resources if not handled by the Supplier/Partner directly.
- Shipment in cases where no dispatch is required for the installation or when the resources cannot be transported by the installation technician.
- Ensuring the resources are part of the truck load with the associated dispatch for installation.

Depending on the type of service request and the associated business rules, these processes might be responsible for placing a reservation on those resources, holding them for a particular period of time, and possibly releasing them when the holding time expires.

The Allocate & Deliver Resource processes will closely interact with the Manage Resource Inventory processes to understand the available physical and logical resources to select from, thereby applying specific selection criteria. The processes will mark the resources as "reserved" by the service order request.

10.3.2.2 Configure & Activate Resource (RM&O – F)
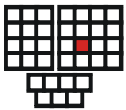
Process Name: Configure & Activate Resource

Process Identifier: 1.F.3.2.2

Brief Description: Configure and activate the resources reserved for supporting a specific service instance.

Extended Description: The objective of the Configure & Activate Resource Processes is to configure and activate the resources reserved for supporting a specific service instance. If these activities succeed, the state of the resources will be changed from reserved to out-of-service, which means they are not available for use.

The Configure & Activate Resource processes can receive configuration requests for adding, changing and complementing services, as well as for fixing resource troubles and adding resource capacity to cope with performance problems.

10.3.2.3 Test Resource (RM&O – F)
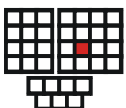
Process Name: Test Resource

Process Identifier: 1.F.3.2.3

Brief Description: Test resources supporting a specific service instance.

Extended Description: The responsibility of the Test Resource Processes is to test resources supporting a specific service instance. The objective is to verify whether the resources work correctly and meet the appropriate performance levels. If these tests succeed, the resources will be marked as in-service which means the resources are available for use.

10.3.2.4 Collect, Update & Report Resource Configuration Data (RM&O – F)
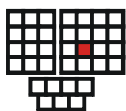
Process Name: Collect, Update & Report Resource Configuration Data

Process Identifier: 1.F.3.2.4

Brief Description: Ensure the Resource Inventory Database reflects resources are being used for a specific customer.

Extended Description: The objective of the Collect, Update & Report Resource Configuration Data Processes is to ensure the Resource Inventory Database reflects resources are being used for a specific customer. They will also report the configuration data changes to other processes.

10.3.3 Resource Trouble Management (RM&O – A)
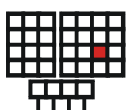
Process Identifier: 1.A.3.3

Brief Description: Responsible for the management of troubles with allocated resources.
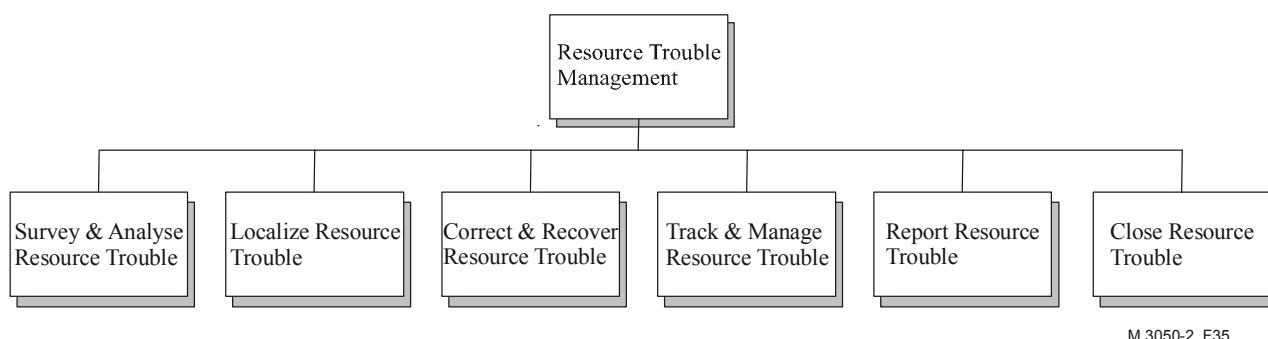
M.3050-2_F35

Figure 35/M.3050.2 – Resource Trouble Management decomposition into Level 3 processes

10.3.3.1 Survey & Analyse Resource Trouble (RM&O – A)
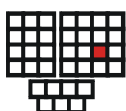
Process Name: Survey & Analyse Resource Trouble

Process Identifier: 1.A.3.3.1

Brief Description: Monitor Resource Failures in real-time.

Extended Description: The objective of the Survey & Analyse Resource Trouble processes is to monitor Resource Failures in real-time.

Responsibilities of these processes include, but are not limited to:

• Resource Failure Event analysis.

• Alarm Correlation and filtering.

• Failure Event detection and reporting.

Resource Failure Event analysis encompasses the identification of the event in terms of reporting entity and nature of the event. It will then analyse the events based on a number of criteria and then suppress redundant, transient or implied events by means of filtering and correlation. It includes the notification of new alarms, or status changes of previously reported alarms, as well as abatement messages when alarms have been cleared.

Alarm Correlation and Filtering encompasses the correlation of redundant, transient or implied events with a specific "root cause" event.

The Survey & Analyse Resource Trouble processes might trigger a well-defined action

based on specific event information as well as the non-arrival of information after a specific time interval has elapsed.

These processes are also responsible for monitoring and triggering the appropriate action when a trouble is not resolved within a pre-defined period of time.

10.3.3.2 Localize Resource Trouble (RM&O – A)
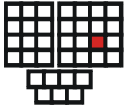
Process Name: Localize Resource Trouble

Process Identifier: 1.A.3.3.2

Brief Description: Identify the root cause of the resource trouble.

Extended Description: The objective of the Localize Resource Trouble processes is to identify the root cause of the resource trouble.

The responsibilities of these processes include, but are not limited to:
- Verifying whether the resource configuration matches the appropriate service features.
- Performing diagnostics against the resources.
- Running tests against the resources.
- Starting and stopping audits against resources.
- Scheduling a routine test.

The Localize Resource Trouble processes will report the outcome of any of the above actions. The Track & Manage Resource Trouble processes will be informed when the root cause has been identified.

10.3.3.3 Correct & Recover Resource Trouble (RM&O – A)
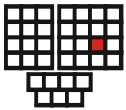
Process Name: Correct & Recover Resource Trouble

Process Identifier: 1.A.3.3.3

Brief Description: Restore or replace resources that have failed and to ensure that the services depending on those resources are restored as efficiently as possible.

Extended Description: The objective of the Correct & Recover Resource Trouble processes is to restore or replace resources that have failed and to ensure that the services depending on those resources are restored as efficiently as possible.

Based on the nature of the failure, it might trigger automatic restoration procedures.

These processes are also responsible for isolating a unit with a fault and managing the redundant resource units (e.g., hot standby). They will also report successful restoration or an unsuccessful attempt at restoration to Track & Manage Resource Trouble.

The Correct & Recover Resource Trouble processes will also communicate with the Support Resource Trouble Management processes to possibly repair or replace the failed unit or resource.

10.3.3.4 Track & Manage Resource Trouble (RM&O – A)

Process Name: Track & Manage Resource Trouble

Process Identifier: 1.A.3.3.4

Brief Description: Ensure repair activities are assigned and tracked efficiently.

Extended Description: The objective of the Track & Manage Resource Trouble is to ensure repair activities are assigned and tracked efficiently.

Responsibilities of these processes include but are not limited to:

- Creation of a trouble report with the appropriate information.
- Adding additional information to an existing trouble report.
- Modifying trouble information in an existing trouble report.
- Modifying the trouble report status.
- Cancelling a trouble report when the trouble was related to a false alarm.
- Report Resource Trouble performs reporting of Resource Trouble status changes.

The Track & Manage Resource Trouble processes will also inform the Close Resource Trouble processes when the resource trouble has been resolved.

10.3.3.5 Report Resource Trouble (RM&O – A)
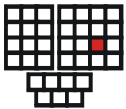
Process Name: Report Resource Trouble

Process Identifier: 1.A.3.3.5

Brief Description: Report on new or changed Resource troubles.

Extended Description: The objective of the Report Resource Trouble processes is to report Resource troubles to, for example, Service Problem Management processes in case a new trouble report is created or the status of an existing trouble report changes.

10.3.3.6 Close Resource Trouble (RM&O – A)
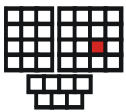
Process Name: Close Resource Trouble

Process Identifier: 1.A.3.3.6

Brief Description: Close a trouble report when the resource trouble has been resolved.

Extended Description: The objective of the Close Resource Trouble processes is to close a trouble report when the resource trouble has been resolved. This includes ensuring appropriate measures will be taken, in order to prevent similar resource troubles from occurring in the future. It also includes interaction with the Resource Trouble processes for reporting purposes.

10.3.4 Resource Performance Management (RM&O – A)
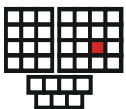
Process Identifier: 1.A.3.4

Brief Description: Monitoring, analysing, controlling and reporting on the performance of resources.
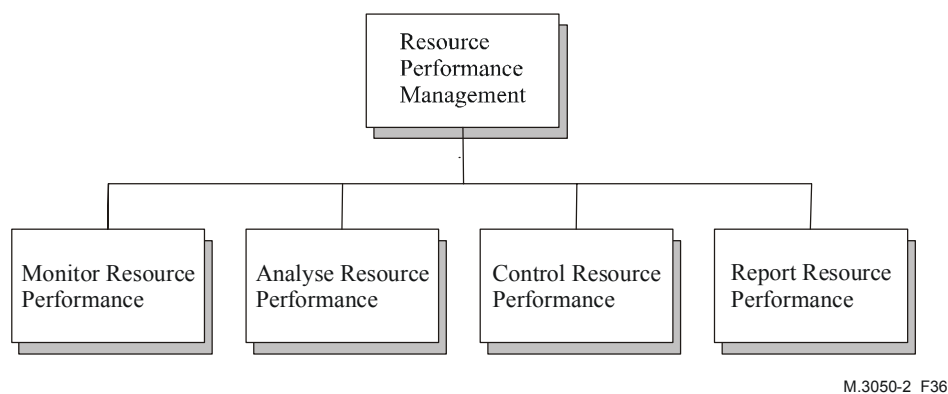
Figure 36/M.3050.2 – Resource Performance Management decomposition into Level 3 processes

10.3.4.1 Monitor Resource Performance (RM&O – A)
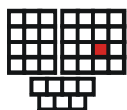
Process Name: Monitor Resource Performance

Process Identifier: 1.A.3.4.1

Brief Description: Monitor received resource performance information.

Extended Description: The objective of the Monitor Resource Performance processes is to monitor the resource performance information received from Resource Data Collection & Processing. These processes monitor the normal performance, and will also apply appropriate thresholds against resource performance. If a performance threshold is crossed, a resource trouble report will be instantiated and handled through the Resource Trouble Management processes.

10.3.4.2 Analyse Resource Performance (RM&O – A)
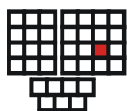
Process Name: Analyse Resource Performance

Process Identifier: 1.A.3.4.2

Brief Description: Analyse and evaluate received resource performance information and report the findings of this analysis.

Extended Description: The objective of the Analyse Resource Performance processes is to analyse the information received from Resource Data Collection & Processing in order to evaluate the performance of the resource and report the findings of this analysis. This also includes further analysis of the performance anomalies identified by the Monitor Resource Performance processes.

Resource fault conditions will be detected by the Resource Trouble Management processes. However these processes, while still impacting the service quality, may not detect intermittent fault conditions in multiple resources. The Analyse Resource Performance processes determine the overall quality, using specific measurements in order to detect service quality degradations. They may also detect degradation trends before the resource performance has dropped below an acceptable level.

Responsibilities of the Analyse Resource Performance processes include, but are not limited to:

• Performance data accumulation and aggregation.

• Resource threshold crossing alert processing.

• Resource performance monitoring event correlation and filtering.

- Traffic status and performance analysis.

If the performance analysis identifies a resource quality problem, this will be reported by the Report Resource Performance processes.

Once reported to Resource Trouble Management or Service Quality Management, the Analyse Resource Performance processes will continuously monitor the resource performance and possibly escalate the problem, ensuring the resource performance is restored to an acceptable level in a timely manner.

10.3.4.3 Control Resource Performance (RM&O – A)
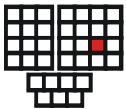
Process Name: Control Resource Performance

Process Identifier: 1.A.3.4.3

Brief Description: Apply controls to resources in order to optimize the resource performance.

Extended Description: The objective of the Control Resource Performance processes is to apply controls to resources in order to optimize the resource performance. The need for installing performance controls can be identified by the Analyse Resource Performance processes or requested by the Service Quality Management processes. This also includes the instantiation of pre-plans, which have been defined in order to cope with abnormal situations caused by, for example, natural disasters or mass calling events.

In the case of, for example, circuit switching and SS7 networks, this encompasses the application of traffic controls that affect call processing and traffic routing in order to optimize the call completion rate. In the case of packet networks, this encompasses various types of traffic conditioning, such as policing and shaping.

10.3.4.4 Report Resource Performance (RM&O – A)
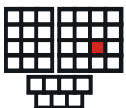
Process Name: Report Resource Performance

Process Identifier: 1.A.3.4.4

Brief Description: Report the findings of the Analyse Resource Performance processes.

Extended Description: The objective of the Report Resource Performance processes is to report the findings of the Analyse Resource Performance processes.

If the performance analysis identifies a resource quality problem, this will be reported to the Resource Trouble Management and/or the Service Quality Management processes. The latter processes are responsible for deciding on and carrying out the appropriate action/response.

10.3.5 Resource Data Collection & Processing (RM&O – AB)
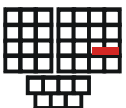
Process Identifier: 1.AB.3.5

Brief Description: Resource Data Collection & Processing.

Collect usage, network and information technology events and performance information for distribution to other processes within the enterprise.
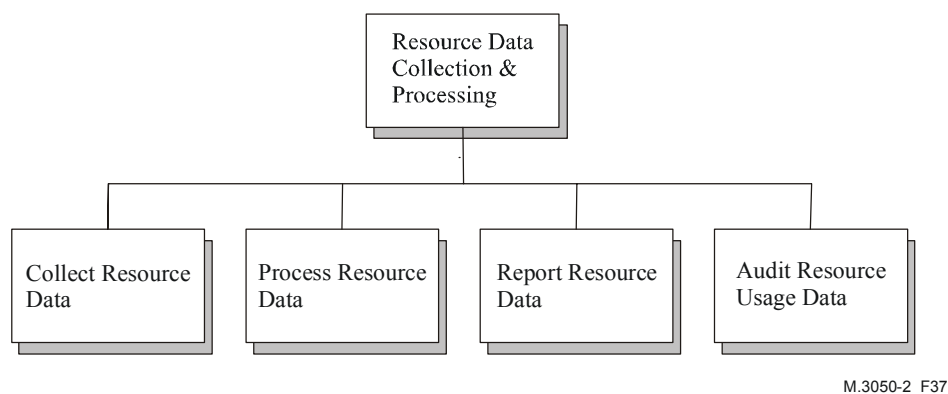
**Figure 37/M.3050.2 – Resource Data Collection & Processing
decomposition into Level 3 processes**

10.3.5.1   Collect Resource Data (RM&O – AB)
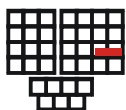
Process Name: Collect Resource Data

Process Identifier: 1.AB.3.5.1

Brief Description: Collect usage, network and information technology events and performance information.

Extended Description: The Collect Resource Data processes are responsible for collecting usage, network and information technology events and performance information. Before this information is distributed to other processes within the enterprise, it will be passed to Process Resource Data for processing.

10.3.5.2   Process Resource Data (RM&O – AB)
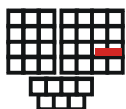
Process Name: Process Resource Data

Process Identifier: 1.AB.3.5.2

Brief Description: Process the raw data collected from the resources.

Extended Description: The Process Resource Data processes are responsible for processing the raw data collected from the resources. This includes the filtering of Resource Data based on well-defined criteria, as well as providing summaries of the Resource Data through aggregation.

These processes are also responsible for formatting the Resource Data before distributing it to other processes within the enterprise.

10.3.5.3   Report Resource Data (RM&O – AB)
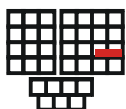
Process Name: Report Resource Data

Process Identifier: 1.AB.3.5.3

Brief Description: Distribute processed Resource Data to other processes within the enterprise.

Extended Description: The Report Resource Data processes are responsible for distributing processed Resource Data to other processes within the enterprise for further analysis and/or reporting.

10.3.5.4 Audit Resource Usage Data (RM&O – AB)
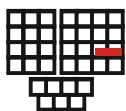
Process Name: Audit Resource Usage Data

Process Identifier: 1.AB.3.5.4

Brief Description: Audit the resource data collection stream in order to identify possible anomalies.

Extended Description: The Audit Resource Usage Data processes are responsible for auditing the resource data collection stream in order to identify possible anomalies such as loss of usage data in the different collection and processing steps.

10.4 Supplier/Partner Relationship Management (S/PRM) Processes
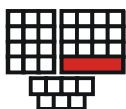
Process Identifier: 1.OFAB.4

This horizontal functional process grouping supports the core operational processes, both the customer instance processes of Fulfilment, Assurance and Billing and the functional operations processes. Supplier/Partner Relationship Management (S/PRM) processes align closely with a supplier's or partner's Customer Relationship Management processes. The inclusion of distinct Supplier/Partner Relationship Management processes in the eTOM framework enables the direct interface with the appropriate lifecycle, end-to-end customer operations or functional processes with suppliers and/or partners. The processes include issuing RFPs as part of the buy process, issuing purchase orders and tracking them through to delivery, mediation of purchase orders as required to conform to external processes, handling problems, validating billing and authorizing payment, as well as quality management of suppliers and partners.

It is important to note that when the enterprise sells its products to a partner or supplier, this is done through the enterprise CRM processes, which act on behalf of the supplier or the enterprise in such cases. Supplier/Partner processes only cover the buying of services by the enterprise.

Figure 38/M.3050.2 – S/P Relationship Management decomposition into Level 2 processes

10.4.1 S/PRM Support & Readiness (S/PRM – OSR)
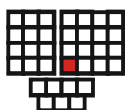
Process Identifier: 1.O.4.1

Brief Description: S/PRM Support & Readiness processes are responsible for ensuring that all necessary facilities related to the interaction with suppliers and partners are ready and functioning. Moreover, these processes are responsible for the resolution of problems related to these facilities.
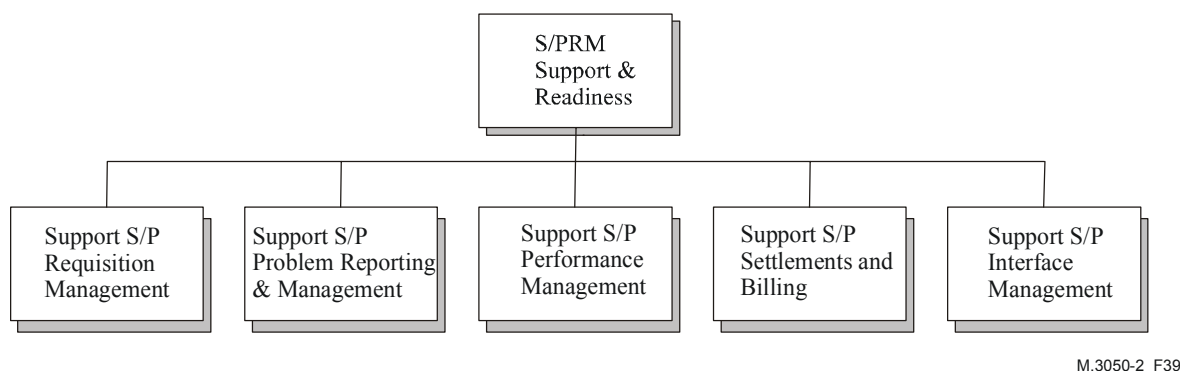
Figure 39/M.3050.2 – S/PRM Support & Readiness Decomposition into Level 3 processes

10.4.1.1 Support S/P Requisition Management
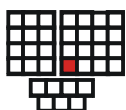
Process Name: Support S/P Requisition Management

Process Identifier: 1.O.4.1.1

Brief Description: Verify that all necessary facilities related to S/P Requisition Management are ready and functioning so that no delay is incurred when requisitioning from suppliers and partners.

Extended Description: The purpose of these processes is to make sure that there is capacity (for example, information, materials, systems and resources) so that the S/P Requisition Management processes can operate effectively. Examples are: information on how to process requisitions for specific products and services, materials needed to confirm requisition requests, systems needed to validate supplier/partner product and service availability.

These processes update supplier/partner contract details as well as supplier/partner product and service information, etc. They undertake trend analysis on supplier/partner requisitioning, including types of associated, response duration, delays and other problems.

10.4.1.2 Support S/P Problem Reporting & Management
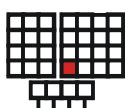
Process Name: Support S/P Problem Reporting & Management

Process Identifier: 1.O.4.1.2

Brief Description: Verify that all necessary facilities related to S/P Problem Reporting & Management are ready and functioning.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the S/P Problem Reporting & Management processes can operate effectively.

These processes also undertake trend analysis on supplier/partner problem handling, including type and frequency of problems occurring and time taken to resolve.

10.4.1.3 Support S/P Performance Management
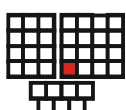
Process Name: Support S/P Performance Management

Process Identifier: 1.O.4.1.3

Brief Description: Verify that all necessary facilities related to S/P Performance Management are ready and functioning.

Extended Description: The purpose of these processes is to ensure that there is

capability (for example, information, materials, systems and resources) so that the S/P Performance Management processes can operate effectively. These processes support S/P Performance Management processes, including ongoing relations with suppliers/partners from an operational viewpoint. This can include reviews and recommendations for improvements, and short-term remedial action/agreements with suppliers/partners concerning contract breaches.

These processes undertake trend analysis on service performance from suppliers and partners, including problems in meeting performance goals, and types and frequency of violation.

10.4.1.4 Support S/P Settlements & Billing Management
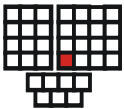
Process Name: Support S/P Settlements & Billing Management

Process Identifier: 1.O.4.1.4

Brief Description: Verify that all necessary facilities related to S/P Settlements & Billing Management are ready and functioning.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the S/P Settlements & Billing Management processes can operate effectively. Examples are information on how to respond to current settlements and billing issues with suppliers and partners, materials needed to process bills and invoices with suppliers and partners: systems needed to create bills, handle invoices or analyse supplier/partner billing and settlement concerns, requests for provisioning of additional resources where it has been identified that current levels will impact on timely bill preparation, and complaint handling.

These processes undertake trend analysis on billing and invoicing, including problems, delays and complaints.

10.4.1.5 Support S/P Interface Management
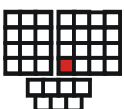
Process Name: Support S/P Interface Management

Process Identifier: 1.O.4.1.5

Brief Description: Ensure that all necessary interfaces between the enterprise and all its S/P are set up and available.

Extended Description: The purpose of these processes is to ensure that there is capability (for example, information, materials, systems and resources) so that the S/P Interface Management processes can operate effectively. Examples are information on how to handle unusual requests based on temporary situations, systems needed to accept and track supplier/partner contacts, requests for the provisioning of additional resources where it has been identified that current levels will impact on timely contact handling.

These processes are responsible for implementing generic and specific changes to supplier/partner interfaces. This support could be in updating agent scripts, Web pages, etc. Support S/P Interface Management processes keep up to date all information concerning suppliers and partners.

These processes undertake trend analysis on supplier/partner contacts, e.g., type, frequency, duration, outcome.

10.4.2 S/P Requisition Management (S/PRM – F)
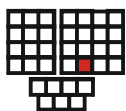
Process Identifier: 1.F.4.2

Brief Description: S/P Requisition Management processes manage requisitions with partners/suppliers to ensure on-time and correct delivery of the product or service requested by the enterprise. According to the appropriate policy and practices of the enterprise, supply chain processes in SIP may be involved as well as, or instead of, S/P Requisition Management to achieve this. This process interfaces with the supplier's CRM process for order handling.
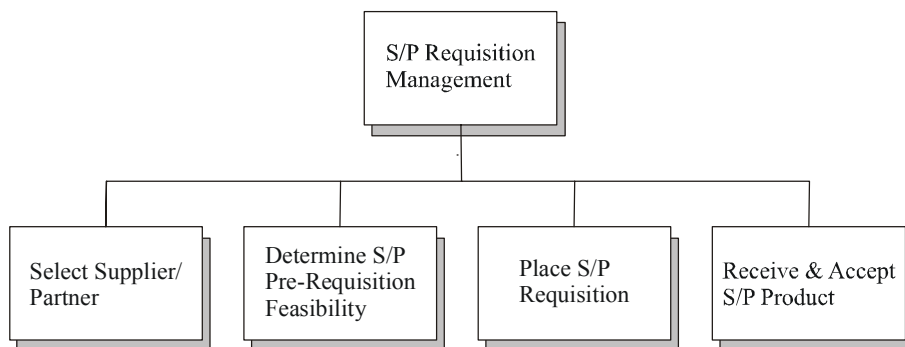
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Figure 40/M.3050.2 – S/P Requisition Management decomposition into Level 3 processes

10.4.2.1 Select Supplier/Partner
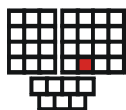
Process Name: Select Supplier/Partner

Process Identifier: 1.F.4.2.1

Brief Description: Select the most appropriate supplier or partner from the range of S/Ps with whom a supply arrangement exists.

Extended Description: Based on the particular service component requirements, select the most appropriate supplier or partner from the range of S/Ps with whom a supply arrangement exists.

Once a supplier/partner is chosen, it must be established that the product is available (in stock/or that sufficient capacity is available), and that the delivery volumes and conditions can be met. There may be some negotiation with the supplier regarding delivery scheduling and product availability.

Finally, the product requirement is formatted into a form whereby it can be transferred to the supplier via the Place Requisition process.

10.4.2.2 Determine S/P Pre-Requisition Feasibility
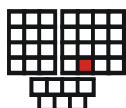
Process Name: Determine S/P Pre-Requisition Feasibility

Process Identifier: 1.F.4.2.2

Brief Description: This process queries a set of candidate suppliers to check for product availability and ability to meet delivery volumes, delivery time-scales and schedules, locations, specific technical and other requirements.

Extended Description: This process queries a set of candidate suppliers to check for product availability and ability to meet delivery volumes, delivery time-scales and schedules, locations, specific technical and other requirements (including relevant standards), etc. The candidate suppliers will have been defined during the Select

Supplier/Partner process, and may be new suppliers or pre-existing suppliers. There may be a number of suppliers who in principle can meet the business need, and so there may be a process of evaluating each supplier's offering or product (and product options) against the business need.

10.4.2.3 Place S/P Requisition
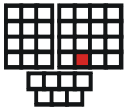
Process Name: Place S/P Requisition

Process Identifier: 1.F.4.2.3

Brief Description: Manages requisitions to suppliers/partners through to delivery.

Extended Description: This process manages requisitions to suppliers/partners through to delivery.

S/P Place Requisition generates a correctly formatted and specified requisition, and issues this to the selected supplier/partner. It tracks progress with the supplier/partner, either periodically, or at defined points according to a project or program plan. This tracking may be driven from the enterprise, or triggered by reports from the supplier/partner (e.g., periodically or at key events).

This process also kicks-off jeopardy and risk management in relation to the supplied products, their availability and delivery schedule. It also receives notifications or requests from suppliers regarding forced or requested changes to the product specification or delivery schedule. These may be caused by the supplier/partner or may be outside their control.

10.4.2.4 Receive & Accept S/P Product
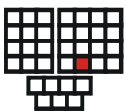
Process Name: Receive & Accept S/P Product

Process Identifier: 1.F.4.2.4

Brief Description: Tracks completion of requisitions after delivery, and arranges for any acceptance testing or commissioning required.

Extended Description: Receive & Accept S/P Product tracks completion of requisitions after delivery, and arranges for any acceptance testing or commissioning required.

This process facilitates and supports coordination of internal activities with activities performed by the supplier/partner, that are required to:

- Configure a bought-in product.
- Bring a bought-in product into service.
- Restore a bought-in product to service.

This process also manages negotiations with a supplier where there have been problems with a product's supply, and determines through dialogue with the supplier, how best to resolve such issues.

This product acceptance may involve coordination with internal service or resource layer processes, where the supplied product forms part of a larger system, or a product for onward shipping.

This process reports status of delivery of the product (as required) to internal stakeholders, and reports and documents on product acceptance, and fitness for purpose.

10.4.3 S/P Problem Reporting & Management (S/PRM – A)
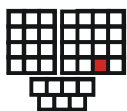
Process Identifier: 1.A.4.3

Brief Description: S/P Problem Reporting & Management processes manage problems, associated with supplier/partner interactions, whether identified within the enterprise or notified by the supplier/partner.
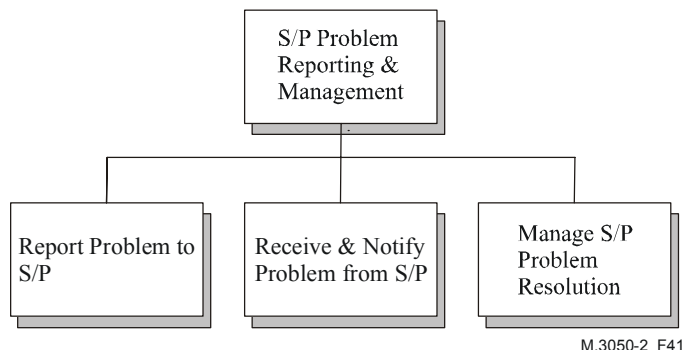
Figure 41/M.3050.2 – S/P Problem Reporting & Management decomposition into Level 3 processes

10.4.3.1 Report Problem to S/P
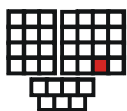
Process Name: Report Problem to S/P

Process Identifier: 1.A.4.3.1

Brief Description: Report specific problems to the supplier/partner. These problems may be detected internally or may be a consequence of problems reported by customers.

10.4.3.2 Receive & Notify Problem from S/P
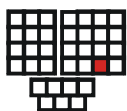
Process Name: Receive & Notify Problem from S/P

Process Identifier: 1.A.4.3.2

Brief Description: Receive notification of problems detected by the supplier/partner, and notifies other processes of this. These notifications will be used by other processes to manage the impact on internal operations and customers.

10.4.3.3 Manage S/P Problem Resolution
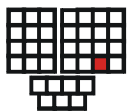
Process Name: Manage S/P Problem Resolution

Process Identifier: 1.A.4.3.3

Brief Description: Track progress of the problem resolution as advised by the supplier/partner.

This process monitors the problem until it is resolved and the performance requirements are being met. It ensures follow-up with internal processes (e.g., SLA management) and customers, and maintains records of the problem.

10.4.4 S/P Performance Management (S/PRM – A)
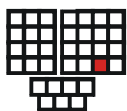
Process Identifier: 1.A.4.4

Brief Description: S/P Performance Management processes track, measure and report the performance of services or products from suppliers and partners, as well as how this relates to the performance of the supplier/partner against any contracts or business agreements. These S/P Performance Management processes interface with the supplier's CRM processes of Customer QoS/SLA Management.

M.3050-2_F42
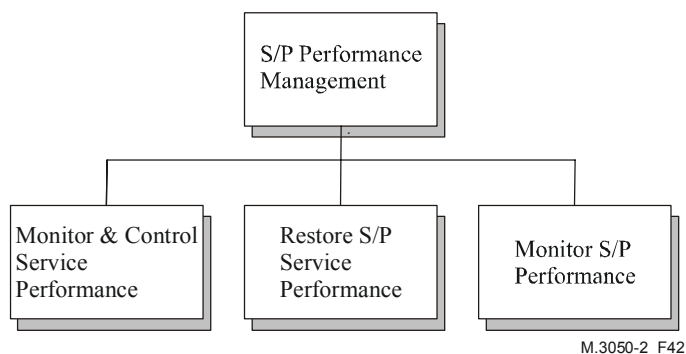
Figure 42/M.3050.2 – S/P Performance Management decomposition into Level 3 processes

10.4.4.1 Monitor & Control Service Performance
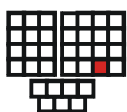
Process Name: Monitor & Control Service Performance

Process Identifier: 1.A.4.4.1

Brief Description: Collect and analyse performance of services delivered by suppliers and partners.

Extended Description: Monitor & Control Service Performance processes control the performance measurement activities, collect performance data on a specified S/P service, analyse this against the relevant SLA for the supplier/partner and report performance data and any S/P SLA violations to other processes. These processes also carry out impact analysis on any S/P SLA violations and initiate corrective actions.

10.4.4.2 Restore S/P Service Performance
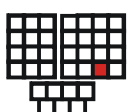
Process Name: Restore S/P Service Performance

Process Identifier: 1.A.4.4.2

Brief Description: Ensure that performance problems involving suppliers and partners are resolved promptly and efficiently.

Extended Description: Restore S/P Service Performance processes manage restoration of service performance with the supplier/partner in cases of SLA or threshold violations, including invocation of restorative activity (e.g., service reconfiguration) as appropriate. These processes coordinate resolution of the performance issue, arrange any performance testing and report on the performance issue to other processes.

10.4.4.3 Monitor S/P Performance
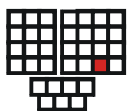
Process Name: Monitor S/P Performance

Process Identifier: 1.A.4.4.3

Brief Description: Monitor and assess supplier/partner performance against the agreed contract or business agreement.

Extended Description: Monitor S/P Performance processes monitor and assess supplier/partner performance against the agreed contract or business agreement (e.g., delivery, support). As appropriate, this can involve taking into account the enterprise business needs and their relationship with the contract commitments. The performance measured may be influenced by performance against SLAs for individual services, etc., but may also take into account wider issues in the relationship between the enterprise and the supplier/partner concerned. Performance reports are provided to other processes.

10.4.5 S/P Settlements & Billing Management (S/PRM – B)
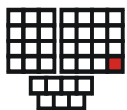
Process Identifier: 1.B.4.5

Brief Description: Manage all settlements and billing for the enterprise, including bill validation and verification and payment authorization.
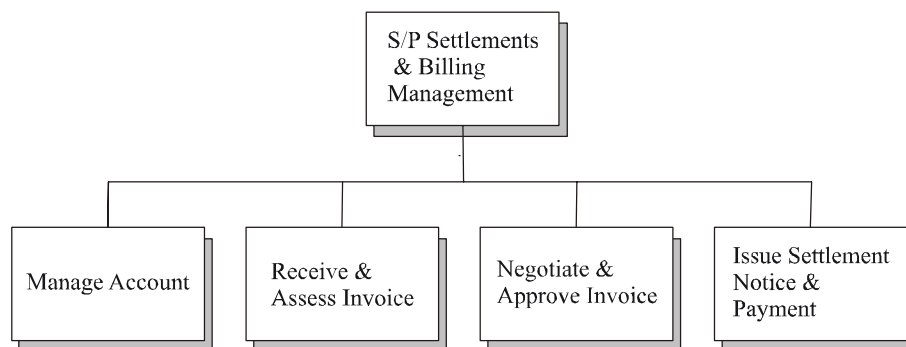
**Figure 43/M.3050.2 – S/P Settlement & Billing Management
decomposition into Level 3 processes**

10.4.5.1 Manage Account
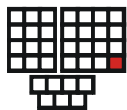
Process Name: Manage Account

Process Identifier: 1.B.4.5.1

Brief Description: Manage Account processes administer the internal record of usage of supplier/partner's services in support of invoice reconciliation and reciprocal usage settlement.

10.4.5.2 Receive & Assess Invoice
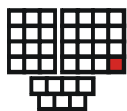
Process Name: Receive & Assess Invoice

Process Identifier: 1.B.4.5.2

Brief Description: Receive & Assess Invoice processes compare invoices against usage records and offsets, and manage the interactions between the supplier/partner and the enterprise to confirm usage records and resolve account differences.

10.4.5.3 Negotiate & Approve Invoice
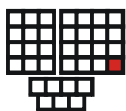
Process Name: Negotiate & Approve Invoice

Process Identifier: 1.B.4.5.3

Brief Description: Negotiate & Approve Invoice processes manage the interactions between the supplier/partner and the enterprise, in relation to enquiries about the billing account, handling disputes and any subsequent negotiations.

10.4.5.4 Issue Settlement Notice & Payment
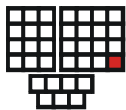
Process Name: Issue Settlement Notice & Payment

Process Identifier: 1.B.4.5.4

Brief Description: Issue Settlement Notice & Payment processes apply where suppliers/partners are entitled to revenue sharing, where the enterprise initiates the settlement cycle.

10.4.6 S/P Interface Management (S/PRM – FAB)

Process Identifier: 1.FAB.4.6

Brief Description: Manage the contacts between the enterprise and its current or future suppliers/partners for products or services.
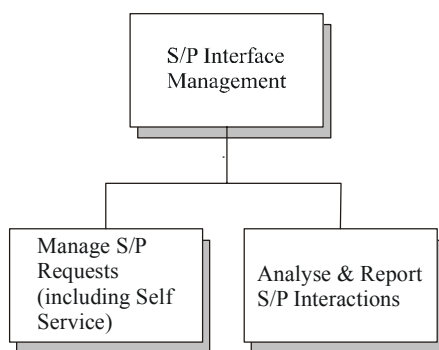
M.3050-2_F44

**Figure 44/M.3050.2 – S/P Interface Management
decomposition into Level 3 processes**

10.4.6.1 Manage S/P Requests (Including Self Service)

Process Name: Manage S/P Requests (Including Self Service)

Process Identifier: 1.FAB.4.6.1

Brief Description: Accept requests and enable the supplier/partner to obtain the desired information from the enterprise, or identify and activate the appropriate process area to accomplish the request.

Extended Description: Manage S/P Requests (including Self Service) processes accept requests and enable the supplier/partner to obtain the desired information from the enterprise, or identify and activate the appropriate process area to accomplish the request.

They also initiate interactions and manage the process of the supplier/partner obtaining information. Alternatively they interact with the appropriate process area to accomplish the request.

10.4.6.2 Analyse & Report S/P Interactions
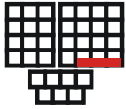
Process Name: Analyse & Report S/P Interactions

Process Identifier: 1.FAB.4.6.2

Brief Description: Analyse & Report S/P Interactions processes analyse interactions and generate reports for tracking and managing interactions or improving procedures for supplier/partner processes.

Brief descriptions

Process identifier	Process name	Brief description
1.F.1.4.4	Acquire Customer Data	Record all pertinent customer data.
1.F.2.2.6	Activate Service	Trigger the end-to-end activation/deactivation of all installed elements.
1.F.3.2.1	Allocate & Deliver Resource	Identify resources required to support a specific Service Instance.
1.F.2.2.2	Allocate Specific Resources to Services	Issue identifiers for new services and to manage identifier pools for services.
1.FAB.4.6.2	Analyse & Report S/P Interactions	Analyse & Report S/P Interactions processes analyse interactions and generate reports for tracking and managing interactions or improving procedures for supplier/partner processes.
1.FAB.1.9.3	Analyse and Manage Customer Risk	Ensure that a consistent customer risk assessment is used across the Enterprise Risk based on information collected from all processes.
1.FAB.1.2.3	Analyse and Report on Customer	Perform all necessary analysis on closed requests and on customer contacts and generate related reports.
1.A.3.4.2	Analyse Resource Performance	Analyse and evaluate received resource performance information and report the findings of this analysis.
1.A.2.4.2	Analyse Service Quality	Assess the effectiveness of the service by identifying the current quality level against forecast quality levels or specified KQIs.
1.B.2.5.3	Analyse Usage Records	Generate reports on usage records based on requests from other processes.
1.B.1.8.2	Apply Pricing, Discounting & Rebate	Ensure that the customer receives an invoice that is reflective of all the billable events delivered by the Service Provider as per the business relationship between the customer and the Service Provider.
1.A.1.7.1	Assess Customer QoS Performance	Manage the overall customer QoS/SLA performance to ensure contractual obligations are being met.
1.E.5.2	Asset Management	Manage all financial and policy aspects of the physical assets of the enterprise.
1.E.2.4	Audit Management	Provide assurance to senior management and the enterprise Board that the enterprise processes and controls are effective and conform to relevant adopted standards.

Process identifier	Process name	Brief description
1.AB.3.5.4	Audit Resource Usage Data	Audit the resource data collection stream in order to identify possible anomalies.
1.F.1.5.2	Authorize Credit	Assess a customer's credit worthiness in support of managing customer risk and company exposure to bad debt.
1.B.1.8	Billing & Collections Management	Ensure that enterprise revenue is billed and collected.
1.E.6.6	Board & Shares/Securities Management	Manage all activities associated with Board administration and securities regulation.
1.FAB.1.9.2	Build Customer Insight	Ensure that Service Provider and the customer feel confident that the relationship is founded on up-to-date, accurate and legally compliant information.
1.E.2.1	Business Continuity Management	Manage the development of strategies, policies, plans, organizational roles & responsibilities, and escalation procedures for ensuring continuation of business processes and activities in the event of serious and/or sustained interruption.
1.E.1.2	Business Development	Broaden the scope of the enterprise activities through expansion, or sharpening of the enterprise's focus through divestment or outsourcing of non-critical activities.
1.A.2.3.5	Close & Report	Certify the recovery of the normal service performance.
1.A.1.6.4	Close Problem	Ensure that a problem affecting the customer is solved.
1.A.3.3.6	Close Resource Trouble	Close a trouble report when the resource trouble has been resolved.
1.AB.3.5.1	Collect Resource Data	Collect usage, network and information technology events and performance information.
1.F.3.2.4	Collect, Update & Report Resource Configuration Data	Ensure the Resource Inventory Database reflects resources are being used for a specific customer.
1.E.6.2	Community Relations Management	Ensure the enterprise's position within the community, or communities, within which it operates.
1.F.1.5.5	Complete Order	Manage customer information and interactions after customer contracts or customer Service Orders have been finalized and during the Order Completion phase.
1.F.3.2.2	Configure & Activate Resource	Configure and activate the resources reserved for supporting a specific service instance.
1.A.3.4.3	Control Resource Performance	Apply controls to resources in order to optimize the resource performance.
1.E.6.1	Corporate Communications & Image Management	Communicate the required messages to the market and industry about the overall enterprise, and handle enquiries and other interactions with the mass media.
1.A.3.3.3	Correct & Recover Resource Trouble	Restore or replace resources that have failed and to ensure that the services depending on those resources are restored as efficiently as possible.
1.B.1.8.3	Create & Deliver Bill	Production of a timely and accurate invoice reflective of the charges for services delivered to the customer by the Service Provider and respective trading partners.

Process identifier	Process name	Brief description
1.O.1.1	CRM Support & Readiness	CRM Support & Readiness processes manage classes of products, ensuring that all CRM processes in Fulfilment, Assurance and Billing are supported and able to manage interactions with customers promptly and efficiently.
1.F.1.4.5	Cross/Up selling	Ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products.
1.FAB.1.2	Customer Interface Management	Managing all interfaces between the enterprise and potential and existing customers.
1.A.1.7	Customer QoS/SLA Management	Monitoring, managing and reporting of delivered vs contractual Quality of Service (QoS), as defined in the enterprise's service descriptions, customer contracts or product catalogue.
1.OFAB.1	Customer Relationship Management CRM	This horizontal functional process grouping considers the fundamental knowledge of customers needs and includes all functionalities necessary for the acquisition, enhancement and retention of a relationship with a customer. It is about customer service and support, whether storefront, telephone, web or field service. It is also about retention management, cross-selling, up-selling and direct marketing for the purpose of selling to customers. CRM also includes the collection of customer information and its application to personalize, customize and integrate delivery of service to a customer, as well as to identify opportunities for increasing the value of the customer to the enterprise. CRM applies to both conventional retail customer interactions, as well as to wholesale interactions, such as when an enterprise is selling to another enterprise that is acting as the 'retailer'.
1.F.2.2.1	Design Solution	Provide a system architecture which complies to a particular customer requirement.
1.F.4.2.2	Determine S/P Pre-Requisition Feasibility	This process queries a set of candidate suppliers to check for product availability and ability to meet delivery volumes, delivery time-scales and schedules, locations, specific technical and other requirements.
1.F.1.5.1	Determine PreOrder Feasibility	Check the availability and/or the feasibility of providing non-standard product(s) and/or special solutions on standard product(s) to a customer.
1.A.2.3.2	Diagnose Problem	Isolate the root cause of the problem.
1.E.7.5	Employee & Labour Relations Management	Manage relationships with employees at an enterprise and employee group level.
1.O.3.1.4	Enable Resource Data Collection & Processing	Aggregate of network and information technology events on groups of resources, as well as resource class information, for traffic engineering and capacity planning.
1.O.3.1.2	Enable Resource Performance Management	Enable Resource Performance Management processes monitor and maintain resource classes proactively, according to performance parameters.

Process identifier	Process name	Brief description
1.O.3.1.1	Enable Resource Provisioning	Testing and acceptance of new resources as part of the handover procedure from the Resource Capability Delivery process to Operations.
1.O.2.1.2	Enable Service Configuration & Activation	Ensure that service capacity is available to the Service Configuration & Activation processes for allocation to a customer when an order arrives.
1.O.2.1.4	Enable Service Quality Management	Ensure that a specific service class is performing according to specific quality requirements.
1.E.1.3	Enterprise Architecture Management	Define, develop, manage and maintain the enterprise architecture.
1.E.3	Enterprise Effectiveness Management	The Enterprise Effectiveness Management process grouping focuses on defining and providing the tools, methodologies and training to ensure that the enterprise processes and activities are managed and run efficiently and effectively. Any enterprise has a host of processes which are used to support the business of the enterprise and its customers and suppliers. By necessity these processes need to evolve and change over time. Process Management & Support processes ensure that the enterprise has the capability to undertake this process evolution. Across an enterprise many activities occur to expand the capability of the enterprise to deliver products and services, provide other facilities, deliver new processes, etc. By the nature of the enterprise these activities are complex and require a high degree of coordination, often across the enterprise. Program and project management is a key competence of an enterprise, and the Program & Project Management processes establish and maintain this core competence. Ensuring that the enterprise is both effective and efficient requires that activities undertaken are done correctly the first time. The Enterprise Quality Planning & Support processes establish the quality framework to be employed within the enterprise. Effective management requires effective measurement, and the Enterprise Performance Assessment processes provide the control framework for the establishment and management of appropriate enterprise performance measures. Facilities Management & Support processes take care of environmental aspects within the enterprise's workplace, making sure the workplace facilities are adequate to guarantee an optimal performance of the employees.
1.E.3.4	Enterprise Performance Assessment	Check that the goals defined for the enterprise are on track and being met.
1.E.3.2	Enterprise Quality Management	Define the enterprise quality management policies and the enterprise model for quality management.
1.E.2	Enterprise Risk Management	The Enterprise Risk Management process grouping focuses on assuring that risks and threats to the enterprise value and/or reputation are identified, and appropriate controls are in place to minimize or eliminate the identified risks. The identified risks may be physical or

Process identifier	Process name	Brief description
		logical/virtual. Successful risk management ensures that the enterprise can support its mission critical operations, processes, applications, communications in the face of a serious incident, from security threats/violations and fraud attempts. The Enterprise Risk Management processes deal with issues surrounding business continuity, security and fraud. Where those risks can be managed within the context of the enterprise they are managed. However, there are some risks, which are outside of the ability of the enterprise to reduce. In those circumstances external insurance can give some comfort to the enterprise, and so the area of insurance management is a key element. A key aspect of risk management is an independent assessment that the identified controls are in place and working effectively. This independent assessment is provided by the Audit Management processes. In many enterprises the area of credit management can be incorporated within the Enterprise Risk Management processes. In the information and communications technology industry, the issuing of credit and credit assessment is intimately tied with the operational processes surrounding the identification and management of customers. In the eTOM Business Process Framework, credit management processes are therefore placed within the CRM horizontal process grouping.
1.FAB.1.9.1	Establish & Terminate Customer Relationship	Verify the customer identity, manage the customer identity across the Enterprise, and manage termination as appropriate.
1.A.2.3.1	Evaluate & Qualify Problem	Determine the nature of a problem that has been reported by a customer and whether the customer is using the service properly.
1.E.3.5	Facilities Management & Support	Take care of environmental aspects within the enterprise's workplace.
1.E.5	Financial & Asset Management	The Financial & Asset Management (F&AM) process grouping focuses on managing the finances and assets of the enterprise. Financial Management processes include Accounts Payable, Accounts Receivable, Expense Reporting, Revenue Assurance, Payroll, Book Closings, Tax Planning and Payment, etc. Financial Management processes collect data, report and analyse the results of the enterprise. They are accountable for overall management of the enterprise income statement. Asset Management processes set asset policies, track assets and manage the overall corporate balance sheet.
1.E.5.1	Financial Management	Manage the financial management aspects of the enterprise.
1.E.2.3	Fraud Management	Define Fraud Management corporate policies, guidelines, best practices and control procedures to be deployed to ensure fraud minimization within the enterprise.

Process identifier	Process name	Brief description
1.E.1.4	Group Enterprise Management	Plan and manage coordination across business units within the enterprise, and between the enterprise and its subsidiaries.
1.E.7	Human Resources Management	The Human Resources Management process grouping provides the human resources infrastructure for the people resources that the enterprise uses to fulfil its objectives. For example, Human Resources Management processes provide salary structures by level, coordinate performance appraisal and compensation guidelines and set policies in relation to people management, employee benefit programs, etc. Moreover, it supports the definition of the organization of the enterprise and coordinates its reorganizations. Note that Human Resources Management processes are concerned with preparing people to carry out their assigned tasks (e.g., organizing training, remuneration, recruiting, etc.). The actual assignment of specific tasks is the responsibility of Work Force Management processes.
1.E.7.1	HR Policies & Practices	Support people management throughout the enterprise.
1.A.2.4.4	Identify & Report Service Constraints	Identify constraints that can affect service quality standards.
1.F.2.2.4	Implement & Configure Service	Deliver a final configuration, which is optimal for customer service requirements.
1.A.2.4.3	Improve Service	Assess and recommend improvements using the information from Service Quality Analysis in order to improve and/or correct deviations from the forecast KQIs.
1.E.2.5	Insurance Management	Assess and manage the insurable risks within an enterprise.
1.A.1.6.1	Isolate Problem & Initiate Resolution	Receive & isolate problem, and initiate resolution actions.
1.F.1.3.1	Issue and Distribute Marketing Collaterals	Issue and distribute marketing collateral (i.e., coupon, premium, sample, toys, fliers, etc.) directly to a customer.
1.B.4.5.4	Issue Settlement Notice & Payment	Issue Settlement Notice & Payment processes apply where suppliers/partners are entitled to revenue sharing, where the enterprise initiates the settlement cycle.
1.E.4.1	Knowledge Management	Manage the tacit and explicit knowledge contained with the enterprise.
1.E.4	Knowledge & Research Management	The Knowledge and Research Management process grouping performs knowledge management and research management within the enterprise including evaluation of potential technology acquisitions.
1.E.6.5	Legal Management	Ensure that the enterprise complies with all relevant legal requirements.
1.A.3.3.2	Localize Resource Trouble	Identify the root cause of the resource trouble.
1.B.4.5.1	Manage Account	Manage Account processes administer the internal record of usage of supplier/partner's services in support of invoice reconciliation and reciprocal usage settlement.

Process identifier	Process name	Brief description
1.O.1.1.9	Manage Campaign	Manage individual marketing campaigns developed by Product Marketing Communications & Promotion processes.
1.B.1.8.5	Manage Collection	Collect payments made by the customer and match to invoices.
1.FAB.1.2.1	Manage Contact	Manage all contacts/requests between potential or existing customers and the enterprise.
1.B.1.8.1	Manage Customer Bill Inquiries	Ensure the timely and effective fulfilment of all customer bill inquiries and the resolution of customer/Service Provider billing issues.
1.B.1.8.4	Manage Customer Billing	Ensure effective management of the customer's billing account.
1.O.3.1.7	Manage Logistics	Manage and control warehousing, logistics, stock level management, physical distribution and transport of purchased materials/goods.
1.FAB.4.6.1	Manage S/P Requests (Including Self Service)	Accept requests and enable the supplier/partner to obtain the desired information from the enterprise, or identify and activate the appropriate process area to accomplish the request.
1.F.1.4.1	Manage Prospect	Match identified leads with the most appropriate products and ensure that these prospects are handled appropriately.
1.A.1.7.2	Manage QoS/SLA Violation	Ensure that the customer and the relevant internal processes are informed of service quality degradations and violations and that action is undertaken to resolve the degradation or violation.
1.A.1.7.3	Manage Reporting	Report on the customer's QoS/SLA performance.
1.FAB.1.2.2	Manage Request (Including Self Service)	Manage all requests (inbound and outbound) made by potential and existing customers.
1.O.3.1.5	Manage Resource Inventory	Manage the administration of the enterprise's resource inventory.
1.O.2.1.1	Manage Service Inventory	Manage the administration of the enterprise's service inventory.
1.A.4.3.3	Manage S/P Problem Resolution	Track progress of the problem resolution as advised by the supplier/partner. This process monitors the problem until it is resolved and the performance requirements are being met. It ensures follow-up with internal processes (e.g., SLA management) and customers, and maintains records of the problem.
1.O.3.1.6	Manage Workforce	Manage Workforce processes plan, assign, dispatch and manage the activities of staff employed by, or operating as part of, the enterprise (i.e., technicians, clerks, managers, etc.). The Manage Workforce processes also enable reporting and monitoring of assigned activities.
1.I.1.4	Marketing Capability Delivery	Manage the delivery and build of new or changed market capabilities or customer-related capabilities.

Process identifier	Process name	Brief description
1.F.1.3	Marketing Fulfilment Response	Responsible for the issue and distribution of marketing collateral directly to a customer and the subsequent tracking of resultant leads.
1.SIP.1	Marketing & Offer Management	This horizontal functional process grouping focuses on the knowledge of running and developing the core business for an Information & Communication Service Provider enterprise. It includes functionalities necessary for defining strategies, developing new products, managing existing products and implementing marketing and offering strategies especially suitable for information and communications products and services. Marketing and offer management are well known business processes, especially in the more competitive e-business environment, where the rate of innovation and brand recognition determine success. Although most companies carry out all these activities, depending upon the size of the company, they are combined in a variety of ways. These processes are enabling processes, but also the key processes that are accountable for commitment to the enterprise for revenue, overall product results and profit and loss. These processes deal with the creation of product, markets and channels; they manage market and product strategies, pricing, sales, channels, new product development (and retirement), marketing communications and promotion.
1.S.1.1	Market Strategy & Policy	Enable the development of a strategic view of an enterprise's existing and desired marketplace.
1.B.2.5.1	Mediate Usage Records	Validate, normalize, convert and correlate usage records collected from the resource layer.
1.A.3.4.1	Monitor Resource Performance	Monitor received resource performance information.
1.A.4.4.3	Monitor S/P Performance	Monitor and assess supplier/partner performance against the agreed contract or business agreement.
1.A.2.4.1	Monitor Service Quality	Extract the necessary information to feed the different quality analysis processes.
1.A.4.4.1	Monitor & Control Service Performance	Collect and analyse performance of services delivered by suppliers and partners.
1.B.4.5.3	Negotiate & Approve Invoice	Negotiate & Approve Invoice processes manage the interactions between the supplier/partner and the enterprise, in relation to enquiries about the billing account, handling disputes and any subsequent negotiations.
1.F.1.4.3	Negotiate Sales	Close the sale with terms that are mutually agreeable to both the customer and the service provider.
1.F.1.5	Order Handling	Responsible for accepting and issuing orders.
1.E.7.2	Organization Development	Support the definition of the organization of the enterprise and coordinate its reorganizations.
1.F.4.2.3	Place S/P Requisition	Manages requisitions to suppliers/partners through to delivery.

Process identifier	Process name	Brief description
1.A.2.3.3	Plan & Assign Resolution	Identify in a functional plane the necessary steps in order to activate the different units which will be involved to fix the problem.
1.FAB.1.9.4	Personalize Customer Profile for Retention & Loyalty	Provide the personalization opportunities for customers that will encourage them not to switch to another Service Provider.
1.A.1.6	Problem Handling	Responsible for receiving trouble reports from customers, resolving them to the customer's satisfaction and providing meaningful status on repair and/or restoration activity to the customer.
1.E.3.1	Process Management & Support	Define and manage enterprise process management.
1.AB.3.5.2	Process Resource Data	Process the raw data collected from the resources.
1.E.5.3	Procurement Management	Define corporate procurement and logistics policies and rules, for all purchases, warehousing, transport, stock level management and physical resource distribution, and supervise their application.
1.I.1.3	Product & Offer Capability Delivery	Manage the delivery and build of new or changed Product & Offer and delivery capabilities within an enterprise.
1.P.1.5	Product & Offer Development & Retirement	Develop and deliver new products or services and product or service enhancements and new features, ready for implementation by the Operations processes.
1.S.1.2	Product & Offer Portfolio Planning	Develop strategies for products at the portfolio level.
1.P.1.7	Product Marketing Communications & Promotion	Develop and manage communications to the market, prospective and existing customers.
1.E.3.3	Program & Project Management	Define and manage the program and project management methodologies, skills and tools within the enterprise.
1.F.1.4.2	Qualify and Educate Customer	Ensure that the business agreement between the customer and service provider is based upon mutual understanding.
1.B.2.5.2	Rate Usage Records	Identify and apply tariffs and charging algorithms to specific parameters encapsulated in usage records.
1.F.4.2.4	Receive & Accept S/P Product	Tracks completion of requisitions after delivery, and arranges for any acceptance testing or commissioning required.
1.B.4.5.2	Receive & Assess Invoice	Receive & Assess Invoice processes compare invoices against usage records and offsets, and manage the interactions between the supplier/partner and the enterprise to confirm usage records and resolve account differences.
1.A.4.3.2	Receive & Notify Problem from S/P	Receive notification of problems detected by the supplier/partner, and notifies other processes of this. These notifications will be used by other processes to manage the impact on internal operations and customers.
1.F.1.5.3	Receive PO and Issue Orders	Validate Purchase Order received and issue correct and complete service orders to be completed.

Process identifier	Process name	Brief description
1.E.6.4	Regulatory Management	Ensure that the enterprise complies with all existing government regulations.
1.A.1.6.2	Report Problem	Generate and manage all reports related to problems that will be issued to the customer and/or to other processes
1.A.4.3.1	Report Problem to S/P	Report specific problems to the supplier/partner. These problems may be detected internally or may be a consequence of problems reported by customers.
1.AB.3.5.3	Report Resource Data	Distribute processed Resource Data to other processes within the enterprise.
1.A.3.4.4	Report Resource Performance	Report the findings of the Analyse Resource Performance processes.
1.A.3.3.5	Report Resource Trouble	Report on new or changed Resource troubles.
1.E.4.2	Research Management	The Research Management processes plan and prioritize research and development activities within the enterprise.
1.I.3.2	Resource Capability Delivery	Use the capability definition or requirements to deploy new and/or enhanced technologies and associated resources.
1.AB.3.5	Resource Data Collection & Processing	Collect usage, network and information technology events and performance information for distribution to other processes within the enterprise.
1.SIP.3	Resource Development & Management	This horizontal functional process grouping focuses on planning, developing and delivering the resources needed to support services and products to the Operations domain. It includes processes necessary for defining the strategies for development of the network and other physical and non-physical resources, introduction of new technologies and interworking with existing ones, managing of existing resources and ensuring that capabilities are in place to meet future service needs.
1.P.3.3	Resource Development & Retirement	Develop new, or enhance existing technologies and associated resource types, so that new Products are available to be sold to customers.
1.OFAB.3	Resource Management & Operations	This horizontal functional process grouping maintains knowledge of resources (application, computing and network infrastructures) and is responsible for managing all these resources (e.g., networks, IT systems, servers, routers, etc.) utilized to deliver and support services required by or proposed to customers. It also includes all functionalities responsible for the direct management of all such resources (network elements, computers, servers, etc.) utilized within the enterprise. These processes are responsible for ensuring that the network and information technologies infrastructure supports the end-to-end delivery of the required services. The purpose of these processes is to ensure that infrastructure runs smoothly, is accessible to services and employees, is maintained and is responsive to the needs, whether directly or indirectly, of services, customers and employees. RM&O also has the basic function to assemble information about the resources (e.g., from network

Process identifier	Process name	Brief description
		elements and/or element management systems), and then integrate, correlate, and in many cases, summarize that data to pass on the relevant information to Service Management systems, or to take action in the appropriate resource.
		In an e-business world, application and computing management are as important as management of the network resources. Moreover, network, computing and applications resources must increasingly be managed in a joint and integrated fashion. To cope with these needs, the eTOM framework includes the Resource Management & Operations process grouping (together with the corresponding Resource Development & Management grouping within SIP), to provide integrated management across these three sets of resources: applications, computing and network. These areas also encompass processes involved with traditional Network Element Management, since these processes are actually critical components of any resource management process, as opposed to a separate process layer. The RM&O processes thus manage the complete service provider network and sub-network and information technology infrastructures.
		The eTOM framework differentiates day-to-day operations and support from planning and development, and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.
1.A.3.4	Resource Performance Management	Monitoring, analysing, controlling and reporting on the performance of resources.
1.F.3.2	Resource Provisioning	Allocate and configure resources to individual customer service instances in order to meet service requirements.
1.S.3.1	Resource Strategy & Planning	Develop resource strategies, policies and plans for the enterprise, based on the long-term business, market, product and service directions of the enterprise.
1.A.3.3	Resource Trouble Management	Responsible for the management of troubles with allocated resources.
1.A.4.4.2	Restore S/P Service Performance	Ensure that performance problems involving suppliers and partners are resolved promptly and efficiently.
1.FAB.1.9	Retention & Loyalty	Manage all functionalities related to the retention of acquired customers, and the use of loyalty schemes in the potential acquisition of customers.
1.O.3.1	RM&O Support & Readiness	Manage classes of resources, ensuring that appropriate application, computing and network resources are available and ready to instantiate and manage resource instances.
1.FAB.4.6	S/P Interface Management	Manage the contacts between the enterprise and its current or future suppliers/partners for products or services.

Process identifier	Process name	Brief description
1.A.4.4	S/P Performance Management	S/P Performance Management processes track, measure and report the performance of services or products from suppliers and partners, as well as how this relates to the performance of the supplier/partner against any contracts or business agreements. These S/P Performance Management processes interface with the supplier's CRM processes of Customer QoS/SLA Management.
1.A.4.3	S/P Problem Reporting & Management	S/P Problem Reporting & Management processes manage problems, associated with supplier/partner interactions, whether identified within the enterprise or notified by the supplier/partner.
1.F.4.2	S/P Requisition Management	S/P Requisition Management processes manage requisitions with partners/suppliers to ensure on-time and correct delivery of the product or service requested by the enterprise. According to the appropriate policy and practices of the enterprise, supply chain processes in SIP may be involved as well as, or instead of, S/P Requisition Management to achieve this. This process interfaces with the supplier's CRM process for order handling.
1.B.4.5	S/P Settlements & Billing Management	Manage all settlements and billing for the enterprise, including bill validation and verification and payment authorization.
1.O.4.1	S/PRM Support & Readiness	S/PRM Support & Readiness processes are responsible for ensuring that all necessary facilities related to the interaction with suppliers and partners are ready and functioning. Moreover, these processes are responsible for the resolution of problems related to these facilities.
1.P.1.6	Sales Development	Develop the Sales support and response for new and existing products and services, as well as existing and potential customers.
1.E.2.2	Security Management	Assess threats to the enterprise and provide capabilities and controls to minimize the threats identified.
1.F.4.2.1	Select Supplier/Partner	Select the most appropriate supplier or partner from the range of S/Ps with whom a supply arrangement exists.
1.F.1.4	Selling	Responsible for managing prospective customers, for qualifying and educating customers, and matching customer expectations.
1.B.2.5	Service & Specific Instance Rating	Manage service events by correlating and formatting them into a useful format.
1.I.2.2	Service Capability Delivery	Plan and deliver the total capabilities required to deliver changes to service.
1.F.2.2	Service Configuration & Activation	Responsible for the installation and configuration of the service for customers, including the installation of customer premises equipment.

Process identifier	Process name	Brief description
1.SIP.2	Service Development & Management	This horizontal functional process grouping focuses on planning, developing and delivering services to the Operations domain. It includes processes necessary for defining the strategies for service creation and design, managing existing services, and ensuring that capabilities are in place to meet future service demand.
1.P.2.3	Service Development & Retirement	Develop and deliver new or enhanced service types.
1.OFAB.2	Service Management & Operations Processes	This horizontal functional process grouping focuses on the knowledge of services (Access, Connectivity, Content, etc.) and includes all functionalities necessary for the management and operations of communications and information services required by or proposed to customers. The focus is on service delivery and management as opposed to the management of the underlying network and information technology. Some of the functions involve short-term service capacity planning for a service instance, the application of a service design to specific customers or managing service improvement initiatives. These functions are closely connected with the day-to-day customer experience. The processes in this horizontal functional process grouping are accountable to meet, at a minimum, targets set for Service Quality, including process performance and customer satisfaction at a service level, as well as Service Cost. The eTOM framework differentiates day-to-day operations and support from planning and development and other strategy and lifecycle processes. This better depicts the structure of an enterprise, especially in an e-business era.
1.A.2.3	Service Problem Management	Respond immediately to customer-affecting service problems or failures in order to minimize their effects on customers, and to invoke the restoration of the service, or provide an alternate service as soon as possible.
1.A.2.4	Service Quality Management	Encompasses monitoring, analysing and controlling the performance of the service perceived by customers.
1.S.2.1	Service Strategy & Planning	Enable the development of a strategic view and a multi-year business plan for the enterprise's services and service directions, and the parties who will supply the required services.
1.E.6.3	Shareholder Relations Management	Manage the relationship between the enterprise and its shareholders.
1.E.6	Stakeholder & External Relations Management	The Stakeholder & External Relations Management process grouping focuses on managing the enterprise's relationship with stakeholders and outside entities. Stakeholders include shareholders, employee organizations, etc. Outside entities include regulators, local community and unions. Some of the processes within this grouping are Shareholder Relations, External Affairs, Labour Relations and Public Relations.

Process identifier	Process name	Brief description
1.O.2.1	SM&O Support & Readiness	Manage classes of services ensuring that the appropriate capability is available and ready to instantiate and manage service instances.
1.E.1	Strategic & Enterprise Planning	The Strategic & Enterprise Planning process grouping focuses on the processes required to develop the strategies and plans for the service provider enterprise. This process grouping includes the discipline of Strategic Planning that determines the business and focus of the enterprise, including which markets the enterprise will address, what financial requirements must be met, what acquisitions may enhance the enterprise's financial or market position, etc. Enterprise Planning develops and coordinates the overall plan for the business working with all key units of the enterprise. These processes drive the mission and vision of the enterprise. IT Planning for the enterprise is also a key process within this process grouping. The IT Planning process directs IT across the enterprise, provides IT guidelines and policies, funding approval, etc. (Note that IT development and management processes are managed within the Resource Development & Management horizontal functional process grouping.)
1.E.1.1	Strategic Business Planning	Provide strategic business direction to the enterprise.
1.OFAB.4	Supplier/Partner Relationship Management	This horizontal functional process grouping supports the core operational processes, both the customer instance processes of Fulfilment, Assurance and Billing and the functional operations processes. Supplier/Partner Relationship Management (S/PRM) processes align closely with a supplier's or partner's Customer.

Relationship Management processes. The inclusion of distinct Supplier/Partner Relationship Management processes in the eTOM framework enables the direct interface with the appropriate lifecycle, end-to-end customer operations or functional processes with suppliers and/or partners. The processes include issuing RFPs as part of the buy process, issuing purchase orders and tracking them through to delivery, mediation of purchase orders as required to conform to external processes, handling problems, validating billing and authorizing payment, as well as quality management of suppliers and partners. It is important to note that when the enterprise sells its products to a partner or supplier, this is done through the enterprise CRM processes, which act on behalf of the supplier or the enterprise in such cases. Supplier/Partner processes only cover the buying of services by the enterprise. |
| 1.I.4.2 | Supply Chain Capability Delivery | Manage the evaluation of new suppliers/partners, to determine those with the goods and services that best meet the enterprise's needs. |

Process identifier	Process name	Brief description
1.SIP.4	Supply Chain Development & Management	This horizontal functional process grouping focuses on the interactions required by the enterprise with suppliers and partners, who are involved in maintaining the supply chain. The supply chain is a complex network of relationships that a service provider manages to source and deliver products. In the e-business world, companies are increasingly working together with suppliers and partners (synergistic clusters, coalitions and business ecosystems) in order to broaden the products they offer and improve their productivity. These processes ensure that the best suppliers and partners are chosen as part of the enterprise supply chain. They help to support sourcing decisions made by the enterprise, and ensure that the capabilities are in place for interaction between the enterprise and its suppliers and partners. They ensure that the contribution of suppliers and partners to the supply chain is timely and delivers the required support, and that their overall performance and contribution is as good as or better than for vertically integrated enterprises. These processes include establishing and maintaining all the information flows managing any mediation required, and financial flows between the provider and supplier.
1.P.4.3	Supply Chain Development & Change Management	Support the development of a supply chain, to support service catalogue extension or modification.
1.S.4.1	Supply Chain Strategy & Planning	Develop the Supply Chain strategies and policies of the enterprise.
1.O.1.1.4	Support Billing & Collections	Ensure that all information, materials, systems and resources are available so that the Billing & Collections Management processes can be completed without delay.
1.O.1.1.1	Support Customer Interface Management	Ensure that all information, materials, systems and resources are available so that the Customer Interface Management processes can operate effectively, when a contact with a customer occurs.
1.O.1.1.8	Support Customer QoS/SLA	Ensure capability to support the Customer QoS/SLA Management processes to carry out monitoring and analysis of customer service performance.
1.O.1.1.6	Support Marketing Fulfilment	Ensure that there is capability to support the expected demand for the Marketing Fulfilment Response processes so that they can operate effectively.
1.O.1.1.2	Support Order Handling	Ensure that all information, materials, systems and resources are available so that the Order Handling processes can operate effectively when a request is received from a customer.
1.O.1.1.3	Support Problem Handling	Ensure capability to support the expected demand for the Problem Handling processes so that they can respond to customers effectively.
1.O.3.1.3	Support Resource Trouble Management	Manage statistically driven preventative and scheduled maintenance activities, and repair activities.

Process identifier	Process name	Brief description
1.O.1.1.5	Support Retention & Loyalty	Ensure that all information, materials, systems and resources are available so that the Retention & Loyalty processes can be completed without delay, when a request is received from a customer.
1.O.4.1.5	Support S/P Interface Management	Ensure that all necessary interfaces between the enterprise and all its S/P are set up and available.
1.O.4.1.3	Support S/P Performance Management	Verify that all necessary facilities related to S/P Performance Management are ready and functioning.
1.O.4.1.2	Support S/P Problem Reporting & Management	Verify that all necessary facilities related to S/P Problem Reporting & Management are ready and functioning.
1.O.4.1.1	Support S/P Requisition Management	Verify that all necessary facilities related to S/P Requisition Management are ready and functioning so that no delay is incurred when requisitioning from suppliers and partners.
1.O.4.1.4	Support S/P Settlements & Billing Management	Verify that all necessary facilities related to S/P Settlements & Billing Management are ready and functioning.
1.O.1.1.7	Support Selling	Ensure capability to support the expected demand for the Selling processes so that they can respond to customers according to agreed targets.
1.O.2.1.5	Support Service & Specific Instance Rating	Ensure that rating and tariff information is maintained for each service class, for use by Service & Specific Instance Rating.
1.O.2.1.3	Support Service Problem Management	Ensure that the availability of service class is maintained in order to prevent customers from being affected by service problems.
1.A.3.3.1	Survey & Analyse Resource Trouble	Monitor Resource Failures in real-time.
1.E.4.3	Technology Scanning	Perform scanning and initial assessment of emerging technology from external sources for the enterprise.
1.F.3.2.3	Test Resource	Test resources supporting a specific service instance.
1.F.2.2.5	Test Service End-toEnd	Ensure all components are operational, and that the service is working to agreed levels before its activation for the customer.
1.A.2.3.4	Track & Manage Resolution	Ensure that the whole resolution is completed according to the established plan.
1.A.3.3.4	Track & Manage Resource Trouble	Ensure repair activities are assigned and tracked efficiently.
1.A.1.6.3	Track & Manage Problem	Track and manage the evolution of the problem during its lifecycle.
1.F.2.2.3	Track & Manage Work Orders	Launch all the operational tasks needed to fix each solution requirement.
1.F.1.3.2	Track Leads	Track leads generated through marketing, or that arise in the course of business.
1.F.1.5.4	Track Order & Manage Jeopardy	Track the status of the customer's purchase/service request order and ensure the order is being undertaken to meet the agreed committed date.

Process identifier	Process name	Brief description
1.FAB.1.9.5	Validate Customer Satisfaction	Validate that predicted/expected value is delivered by the solution and initialize the after-sales processes (billing and assurance).
1.E.7.4	Workforce Development	Develop employees to meet the needs of the business.
1.E.7.3	Workforce Strategy	Drive overall enterprise workforce strategies, including their development and execution at the individual business unit level.

BIBLIOGRAPHY

[GB921]   TMF GB921 Version 4.0 – Enhanced Telecom Operations Map (eTOM).

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