tmforum

Frameworx 12
Solution Conformance
Certification Report

Oracle
RSDOD Solution

April 2013

Version 1.0

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1   Introduction

1.1   Executive Summary

This document provides details of Oracle's self-assessment and TM Forum's Conformance Assessment of **Oracle RSDOD Solution**, against the following Frameworx 12 components:

- Business Process Framework Version 12

The assessment included a review of:

- The methodology approach to process modeling against the TM Forum's Business Process Framework Release 12 according to the specific processes submitted in scope for the Assessment.

2 Product Functionality/Capability Overview

2.1 Oracle RSDOD Solution – Solution Description

Most large communication service providers (CSPs) have grown complex OSS environments through historical accumulation, mergers and acquisitions and custom development. These OSS environments are now being put under severe pressure to cope with the explosion of network and IT resources on one side and the exponential growth of products and service bundles from a commercial perspective. Data, business rules and order management is fragmented and duplicated hindering efficient & rapid rollout of converged bundles of services and exceptional customer service. The solutions are very labour intensive, error-prone, and provide little to no order lifecycle and status visibility, exception and order fallout handling, and order change management.

Oracle Communications provides the only fully convergent, modular and standards aligned service fulfilment solution that cost effectively speeds service introduction and enables accurate order delivery. Oracle Communications' Rapid Service Design and Order Delivery (RSDOD) Solution is based on COTS products and allows CSPs to transform their OSS environment by facilitating rapid design and launch of services and service changes while ensuring right first time, every time delivery of orders for any type of service across any network. RSDOD provides CSPs with the following key business benefits:

- Accelerates time to market through streamlined service fulfilment design capability and decoupling of commercial offers from underlying technology
- Facilitates right first time service fulfilment through a converged platform supporting multiple service domains
- Minimizes IT complexity and cost through a set of COTS based, standards aligned components that can be rapidly deployed to support a productized, open architecture

RSDOD is a comprehensive solution consisting of Oracle Communications Order and Service Management (OSM), Oracle Communications Unified Inventory Management (UIM), Oracle Communications ASAP, Oracle Communications IP Service Activator (IPSA) and Oracle Communications Design Studio. Complementary products from the Oracle OSS portfolio include Oracle Communications MetaSolv Solution (MSS). Optional complementary products include the Information Framework (SID) certified Oracle Communications Data Model (OCDM).
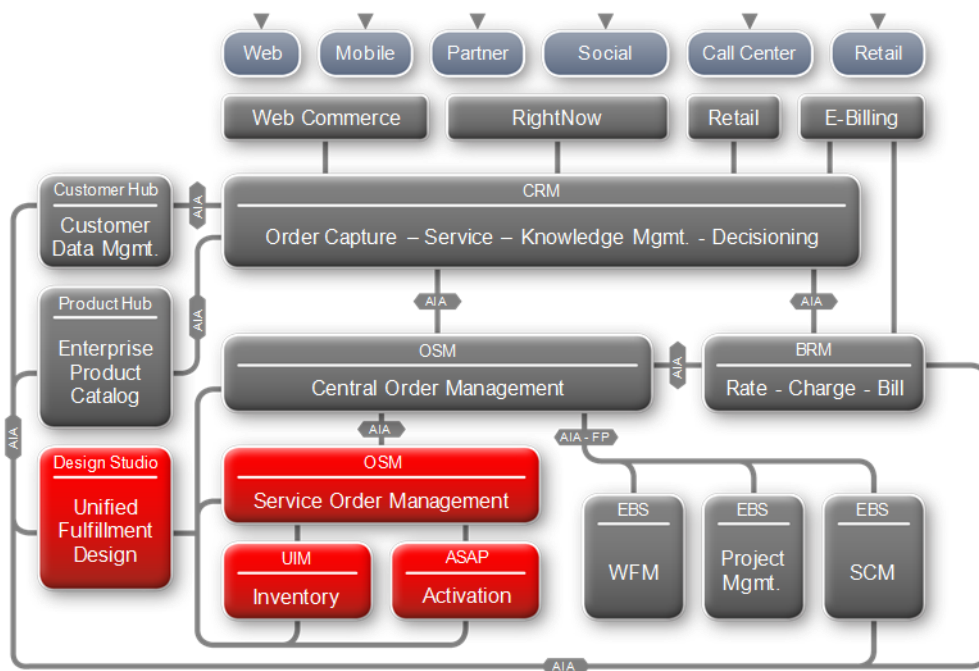
Figure 2.1 - Rapid Service Design & Order Delivery (RSDOD): Solution Components

Oracle Communications Rapid Service Design and Order Delivery (RSDOD) is a complete service fulfillment solution that enables service providers to achieve an improvement in key business metrics of service introduction time, order cycle time and total cost of operations. RSDOD provides service providers with the capabilities in four key functional areas:

- Service Fulfillment Design
- Service & Technical Order Management a.k.a. Provisioning
- Service & Resource Management a.k.a. Inventory management
- Service Activation

RSDOD is built upon the foundation of some key design principles that provides CSPs with immense value as they look to transform their OSS service fulfillment environments meet the needs of today's marketplace. They are highlighted below.

Table 2.1 - Key Design Principles for RSDOD

Key Principles	Value
Commercial, Technical and Vendor decoupling	✓ Decrease time to market ✓ Ability to isolate changes minimizing operational costs
Catalog driven service fulfillment	✓ Maximum reuse of configurations ✓ Reduction of testing time for solution deployment
Common solution for customer, service and technical order fulfillment	✓ Single platform to support multiple service ✓ Flexible deployment options to suit CSP needs
Modular service domain agnostic capabilities	✓ Maintain data and process integrity ✓ Support complex manual and rapid automated service design scenarios
Comprehensive order life cycle management	✓ Decreased operational complexity and costs ✓ Improved customer experience

2.2   Solution Certification Versions

The following table provides the versions of the primary components in the RSDOD solution that have been assessed as part of this certification against Business Process Framework version 12.0.

Table 2.2 - RSDOD Component Versions

Product	Version
Oracle Communications Order & Service Management (OSM)	7.2.2
Oracle Communications Unified Inventory Management (UIM)	7.2.2
Oracle Communications ASAP	7.2.0
Oracle Communications IP Service Activator (IPSA)	7.2.0
Oracle Communications Design Studio (DS)	7.2.2

Additional optional components include the TM Forum Frameworx SID certified Oracle Communications Data Model (OCDM).

2.3   Oracle Communications Concept to Cash Solutions and certifications

In addition to the Rapid Service Design and Order Delivery (RSDOD) solution, which is covered in this document, the Oracle Communications Concept to Cash (C2C) solutions portfolio includes the Rapid Offer Design and Order Delivery (RODOD) solution and the Unified CRM and BRM (UCB) solution.
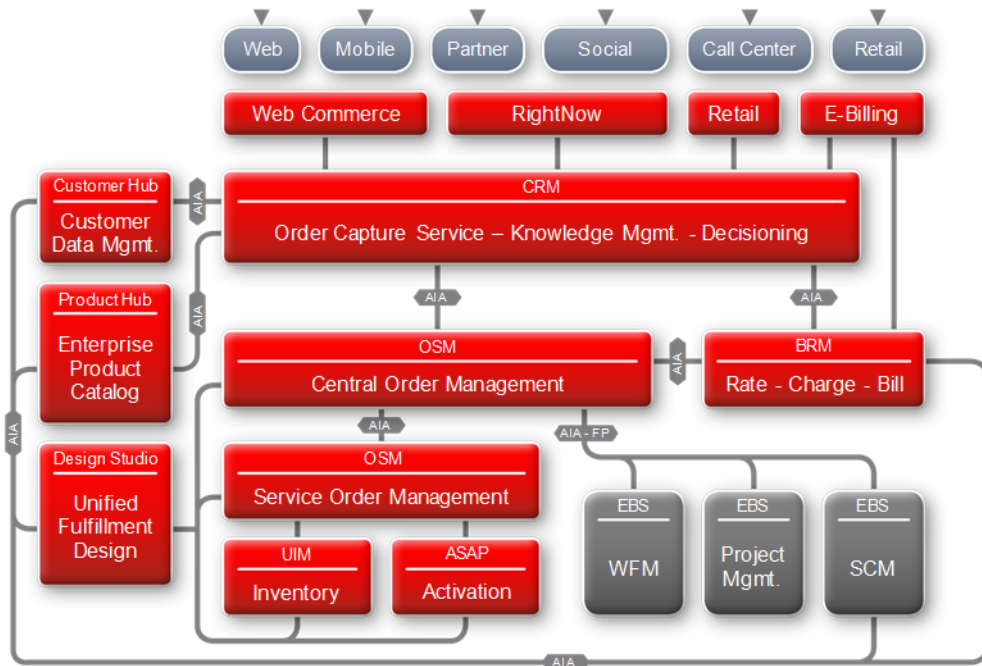
Figure 2.2 – Oracle Concept to Cash Solutions

The Oracle Communications Rapid Offer Design and Order Delivery (RODOD) enables service providers to rapidly design and launch offers to the market and manage the end to end delivery of the customer orders across the fulfilment lifecycle. It is a fully-integrated, product-based solution that provides Service Providers with key business benefits including:

- Faster time to market with integrated end-to-end offer design configuration

- Shorter order cycles with complete visibility across the order lifecycle

- Reduced operational cost through advanced order management capabilities and integrations

The Oracle Communications RODOD solution addresses three key metrics for efficient operations:

- Offer time to market: the period of time required to create an offer and make the offer available for sale

- Order cycle time: the amount of time elapsed from order submission to when the customer can use the service

- Operational efficiency: a measure of productivity related to a service provider's operating expenditures including systems and people

The RODOD solution consists of Oracle Product Hub for Communications, Siebel CRM, ATG Web Commerce, Oracle Communications Order and Service Management (OSM), Billing & Revenue Management (BRM), and Application Integration Architecture (AIA) for Communications. Optional products include Oracle Retail, E-Billing, RightNow, E-Business Suite, and the Information Framework (SID) certified Oracle Communications Data Model (OCDM).
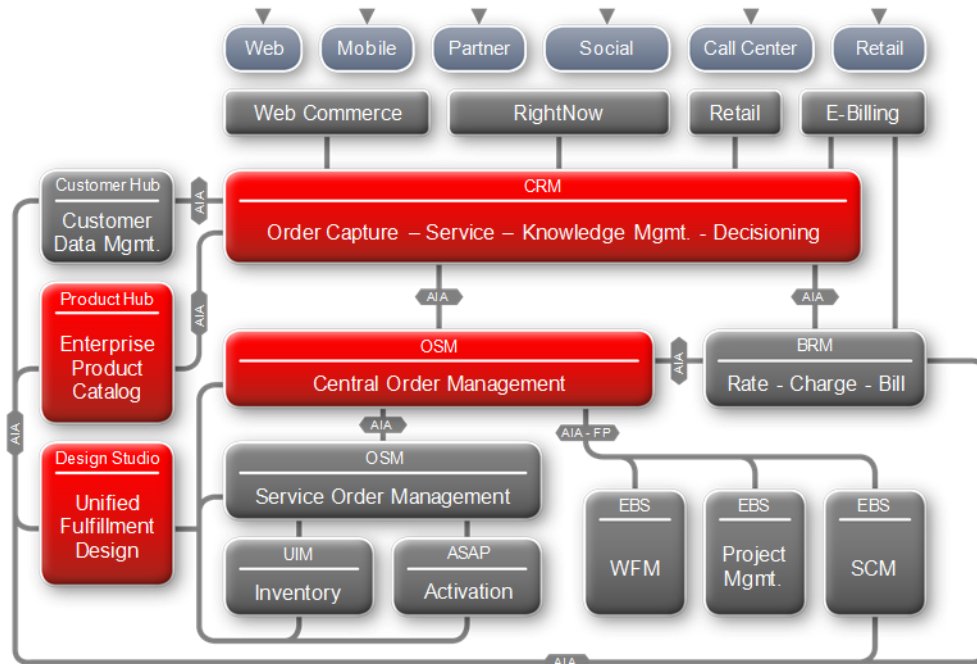
Figure 2.3 – Oracle RODOD Solution

The Oracle Communications Unified CRM and BRM (UCB) solution enables Service Providers to maximize customer value through unified customer lifecycle management, personalized interactions, and extreme business flexibility to meet ever-changing demands. Oracle Communications UCB solution addresses three key metrics for customer interactions:

- Customer Lifetime Value – The total value a customer has over his/her lifecycle both as for purchases and influencing purchases
- Customer acquisition and retention – Measure net-adds to minimize churn and maximize customer acquisitions.
- Cost to serve the Customer – Measure customer profitability by considering both revenues and cost per customer and per product.

The UCB solution consists of Oracle's Siebel CRM, Oracle Communications Billing and Revenue Management, Oracle Customer Hub, Fusion Middleware, and AIA for Communications. Complementary products include Oracle E-Business Suite and Oracle Communications Data Model (OCDM).
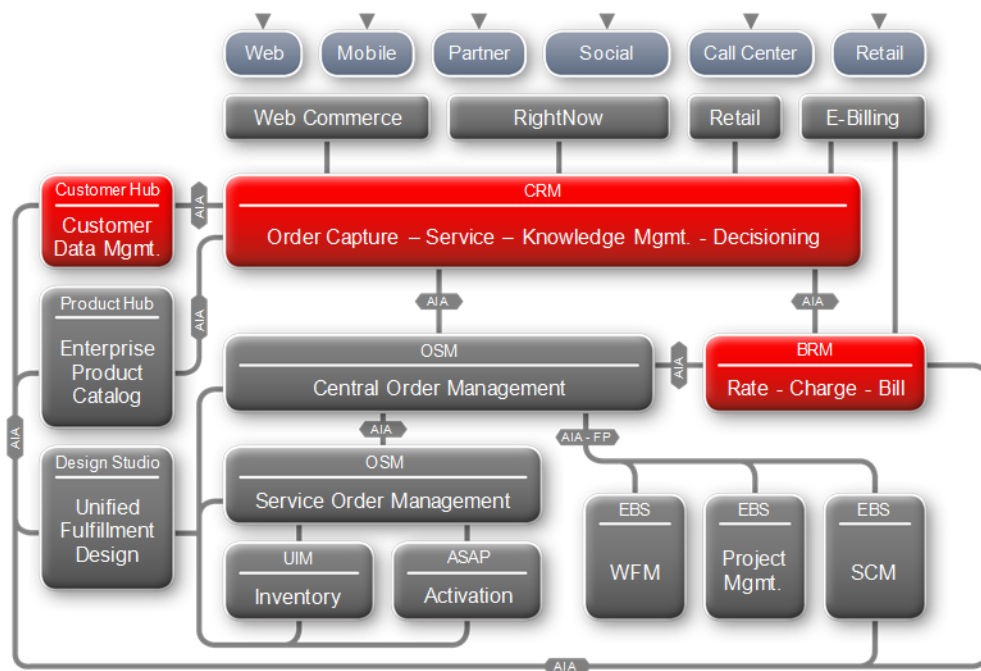
Figure 2.4 – Oracle UCB Solution

Oracle pioneered and champions the fact that pre-integrated, productized, Frameworx certified solutions are the foundation to successful industrialization of OSS/BSS transformation, and a vehicle to accelerate delivery of Frameworx benefits to non-expert audience, thereby accelerating and widening Frameworx adoption across the industry. Oracle was the first company to obtain Frameworx certification in the Solution conformance category with the certification of the RODOD solution in March 2011.

After breaking ground with the RODOD certification Oracle went on with its plan to certify all the C2C solutions against Frameworx first by certifying the UCB solution in December 2011, and then by certifying the RSDOD solution and re-certifying the RODOD solution in March 2013. Oracle is the only supplier in the industry which has demonstrated such a rigor and level of commitment to Frameworx. Solution certification details on the Oracle Communications Concept to Cash Solutions can be found at:
http://www.tmforum.org/SolutionAssessment/10660/home.html.

Taken together, the three Concept to Cash solutions cover almost entirely the Operations domain and also parts of the Strategy, Infrastructure & Product and of the Enterprise Management domain areas of the Business Process Framework (eTOM). The C2C solution footprint covers the majority of the eTOM processes for Product Lifecycle Management, Operation Support and Readiness, Fulfilment, Assurance, and Billing.
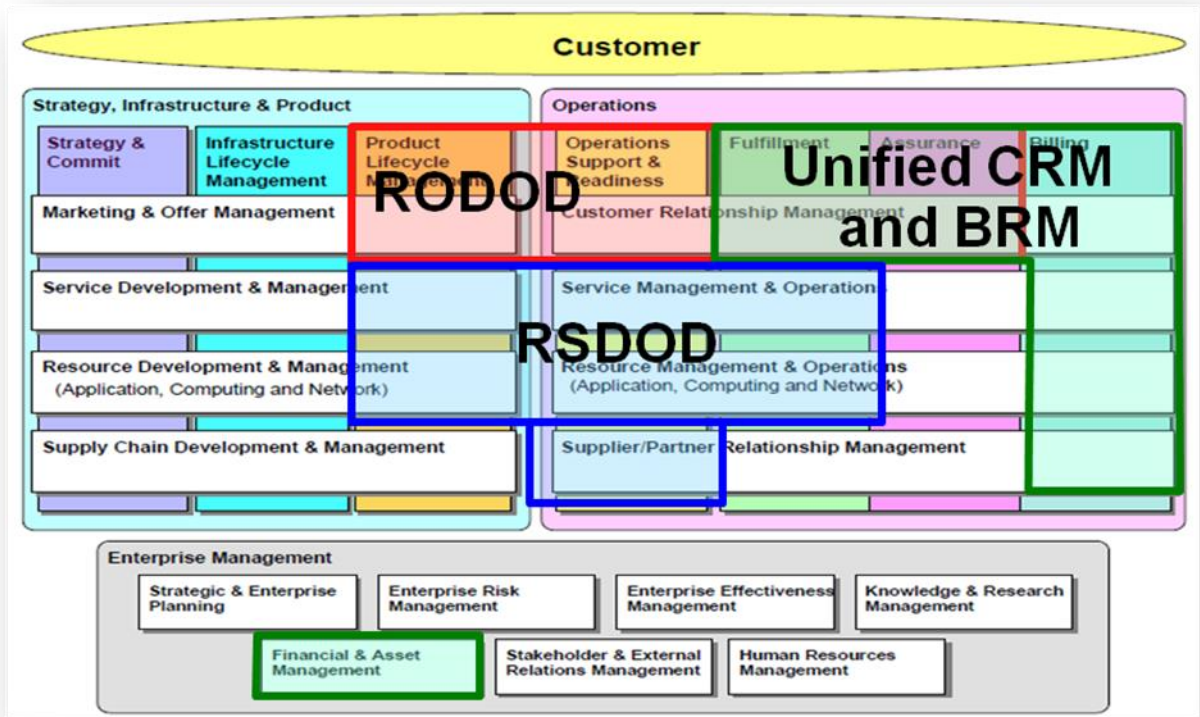
Figure 2.5 – Oracle Communications Concept to Cash Solutions mapping to eTOM Level 1

3 Business Process Framework Assessment Overview

3.1 Mapping Technique Employed

Business Process Framework L3 descriptions are analyzed by looking for implied tasks. (This is similar to how process decomposition can use Semantic Analysis). Each Business Process Framework process is supported by descriptive text. In many cases, each process is aligned and mapped to appropriate company documentation references solution, methodology or modeling material.

The Business Process Framework L3 descriptions are analyzed by looking for implied tasks. Color coded text as highlighted below is used as part of the process mapping whereby highlighted text indicates the level of support for a Level 3 process implied task:

- GREEN is used to highlight key words or key statements that are fully supported
- YELLOW is used to highlight key words/key statements that are partially supported
- GREY is used to highlight key words/key statements that are not supported
- No highlighting is used for words/statements that are irrelevant, just for reference or needed to complete the sentence.

Manual and Automated Support

It is important to determine whether the implied task is supported by manual steps, automated steps, or a combination of both. In this document, "A", "M", or "AM" is used for each task to indicate that the step or steps is/are automated (A), manual (M), or both (AM).

TM Forum Note 1: When process mappings are presented against Level 4 processes, the mappings are provided against the text in the "Mandatory" field for the process. In the event of the Mandatory field not being used, the process mappings are in that case provided against the Level 4 Brief/Extended descriptions.

TM Forum Note 2: Note that if a Level 3 process has not been decomposed to Level 4 processes in the Business Process Framework, in such cases the process mapping support is provided against the Level 4 process descriptions (Brief & Extended).

3.2   Business Process Framework Level 2 Process Scope

This section outlines the Business Process Framework Level 2 processes that were presented in scope for the assessment.

3.2.1   Business Process Framework: Strategy, Infrastructure and Product Scope

The figure and table below provide a more detailed illustration of the connection and complementary nature of the RODOD and RSDOD solutions with regard to the Strategy, Infrastructure and Product domain. As you can see, the RODOD solution focuses on enabling the rapid rollout commercial offers and efficient management of associated lifecycle processes, the RSDOD solution focuses on enabling the rapid design and launch of services that support the commercial offerings.
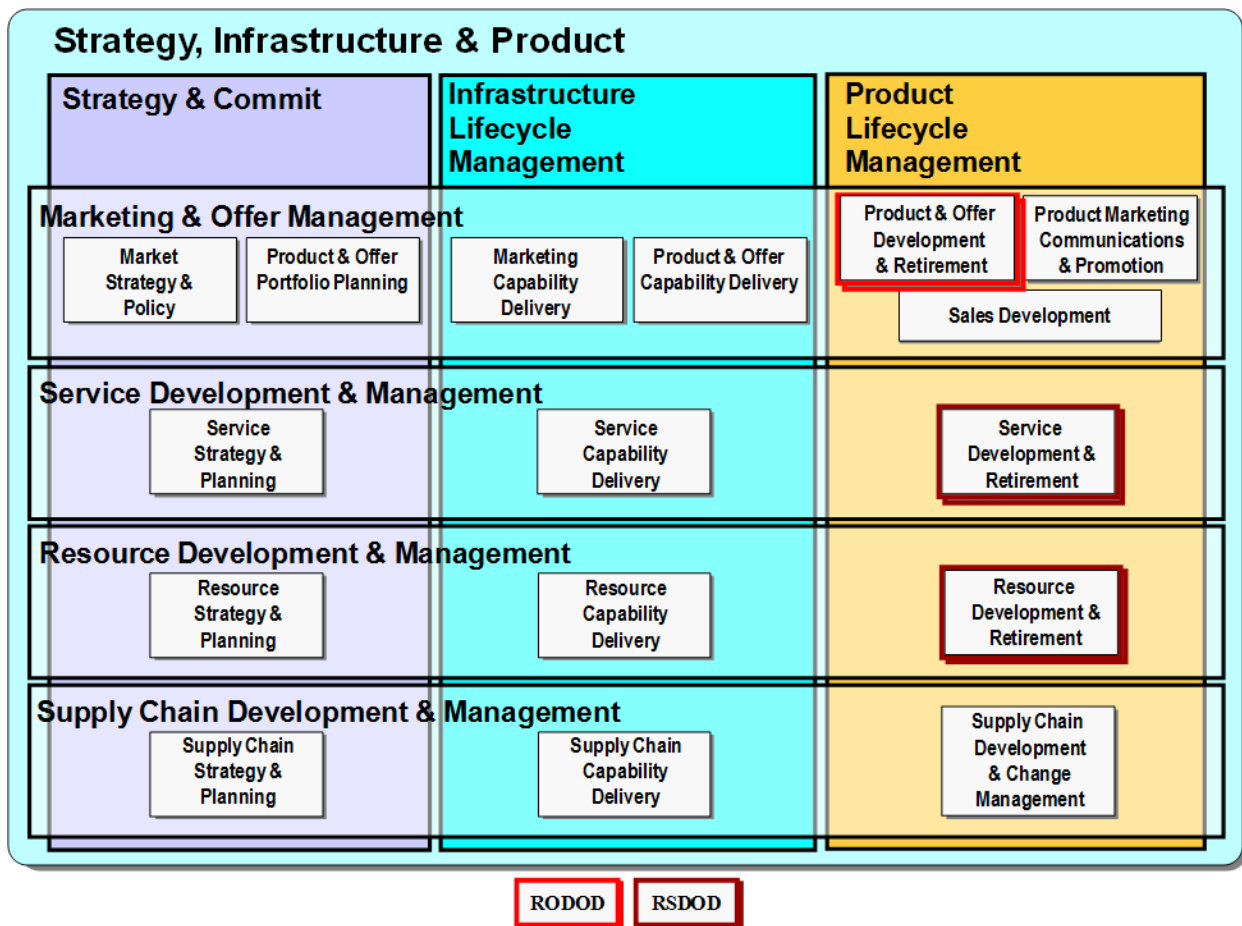
Figure 3.1 - Oracle Communications C2C: Level 2 SIP Processes

Table 3.1 - RODOD & RSDOD: Level 2 SIP Processes

Business Process Framework Level 1 Process Element	Business Process Framework Level 2 Process Element	Solution
Level 0 : Product Lifecycle Management		
Marketing & Offer Management	Product and Offer Development & Retirement	RODOD
Service Development and Management	Service Development and Retirement	RSDOD
Resource Development and Management	Resource Development and Retirement	RSDOD

3.2.2 Business Process Framework: Operations

The figure and table below provide a more detailed illustration of the connection and complementary nature of the three solutions with regard to the Operations domain. As you can see the RODOD solution focuses on enabling the rapid and efficient order capture and enterprise wide order lifecycle management, the UCB solution focused on ongoing customer interactions including billing processes as well as customer and billing care, and the RSDOD solution focuses on the execution of the service fulfilment functions and related processes.
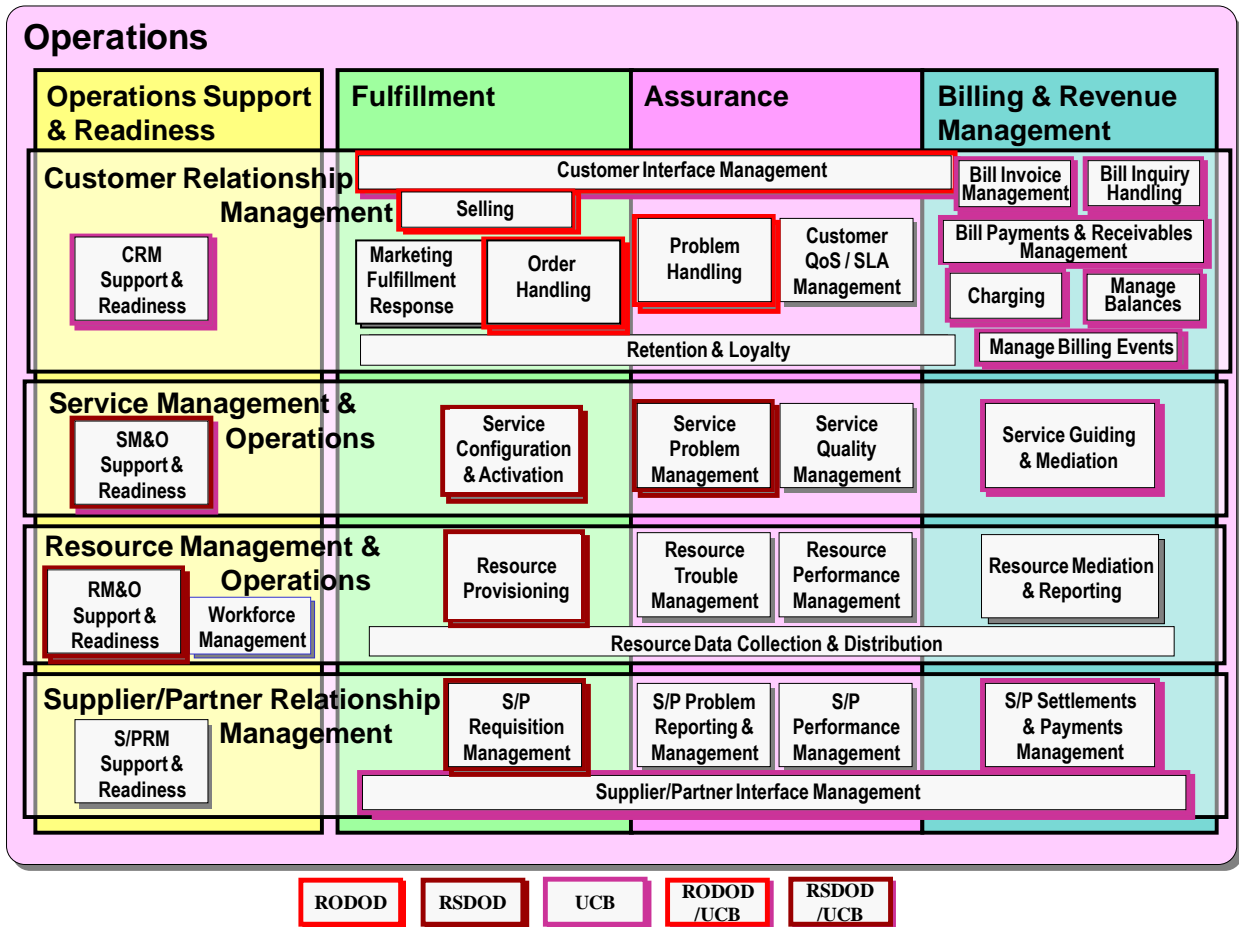
Figure 3.2 – Oracle Communications C2C: Level 2 Operations Processes

Table 3.2 – RODOD, RSDOD, & UCB: Level 2 Operations Processes

Business Process Framework Level 1 Process Element	Business Process Framework Level 2 Process Element	
Level 0: Operations Support & Readiness, Fulfillment, Assurance, and Billing		
Customer Relationship Management	Customer Interface Management	RODOD, UCB
	Selling	RODOD
	Order Handling	RODOD
	Problem Handling	RODOD
	CRM Support & Readiness	UCB
	Bill Invoice Management	UCB
	Bill Inquiry Handling	UCB
	Bill Payments and Receivable Management	UCB
	Charging	UCB
	Manage Balances	UCB
	Manage Billing Events	UCB
Service Management and Operations (SM&O)	SM&O Support and Readiness	RSDOD, UCB
	SM&O Service Configuration and Activation	RSDOD
	Service Problem Management	RSDOD
	Service Guiding and Mediation	UCB
Resource Management & Operations (RM&O)	RM&O Support and Readiness	RSDOD
	Resource Provisioning	RSDOD
Supplier and Partner Relationship Management	S/P Requisition Management	RSDOD
	S/P Settlements & Payments Management	UCB
	S/P Interface Management	UCB

3.2.3   Business Process Framework: Level 3 Process Coverage

The following diagram identifies the number of Level 3 processes that were submitted for assessment, for each Level 2 process that was submitted in scope for the Assessment.
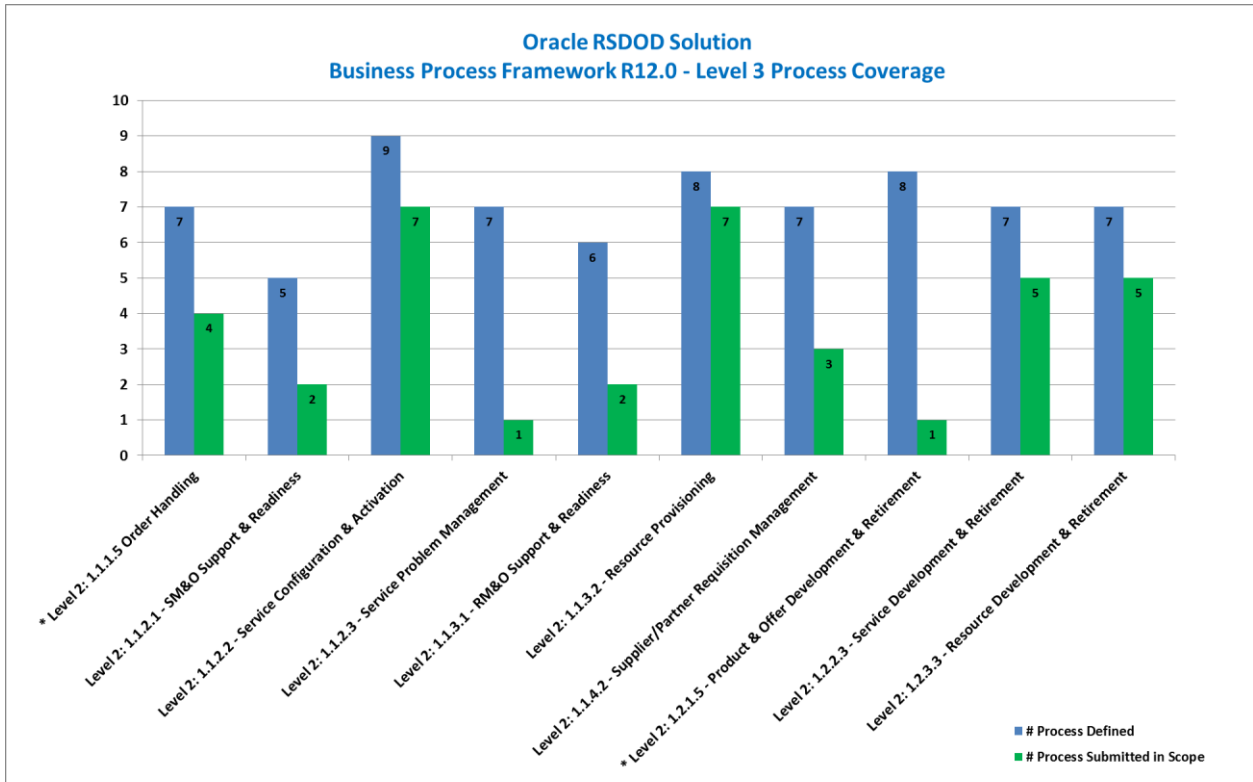
* These processes were assessed as part of the ORACLE RODOD Solution Conformance Assessment. For further details, please see the ORACLE RODOD Conformance Certification Results.

Figure 3.3 - Level 3 process coverage for Oracle RSDOD Solution Assessment

4   Business Process Framework – Process Mapping Descriptions

This section provides the Process Mapping output from Oracle' Self-Assessment which was reviewed by TM Forum Subject Matter Experts alongside supporting documentation for the Oracle RSDOD Solution.

4.1   Level 1: 1.1.1 - Customer Relationship Management

4.1.1   Level 2: 1.1.1.5 Order Handling

For the Level 3's within Level 2 Ordering Handling 1.1.1.5, the Conformance Level granted is based on the conformance result granted in the ORACLE RODOD Solution Conformance Assessment. They represent the processes that overlap and integrate RODOD and RSDOD using Central Order Management capabilities of OSM – a component of both RODOD & RSDOD. For further details on RODOD, please see the ORACLE RODOD Conformance Certification Results.

4.1.1.1   *Level 3: 1.1.1.5.1 - Determine Customer Order Feasibility [Not assessed]*

4.1.1.2   *Level 3: 1.1.1.5.2 - Authorize Credit [Not assessed]*

4.1.1.3   *Level 3: 1.1.1.5.4 - Track & Manage Customer Order Handling*

Table 4.1 - Level 3: 1.1.1.5.4 - Track & Manage Customer Order Handling

LEVEL 3 PROCESS MAPPING DETAILS
1.1.1.5.4 - Track & Manage Customer Order Handling

Brief Description

Ensure customer provisioning activities are assigned, managed and tracked efficiently to meet the agreed committed availability date

Covered within the body of the Extended Description.

Extended Description

The objective of the Track & Manage Customer Order Handling processes is to ensure customer provisioning activities are assigned, managed and tracked efficiently to meet the agreed committed availability date.

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

The Order to Activate business process is at the core of business and operational support systems for any Communications Service Provider (CSP). The process extends from the time a quote or order is created, to the time when the goods and services are delivered and properly billed.

The AIA based Order to Activate Process Integration Pack (PIP) works with the Order to Bill PIP and participating applications to enable the orchestration, tracking and handling of the customer order, including support for these business processes:

[*Comms O2C Impl Guide*]:: (A) Understanding Order to Activate: Page   7.1 to 7.11

- Scheduling, assigning and coordinating customer provisioning related activities;
- Generating the respective service order creation request(s) to Issue Service Orders based on specific customer orders; (A)

A customer order is captured in CRM. Once an order is complete and validated in CRM, it is submitted to OSM (Central Order Management) for delivery. Customer orders (both Qualify and Deliver request types) received in OSM are first recognized (as AIA Customer Orders), mapped to fulfillment patterns, and enriched with fulfillment metadata. OSM decomposes and orchestrates the customer order. OSM divides the order into sub-orders, called order components, which have cross-order components, cross-order lines, and cross-order dependencies, to reflect the specific demands of the CSP. The outcome is an order orchestration plan. The fulfillment flow that is produced orchestrates fulfillment requests to different fulfillment providers using preconfigured fulfillment functions, such as sync customer into billing, initiate and fulfill billing, provision order, ship order, and install order.

The swim lane diagram on page 7.6 of the referenced documentation illustrates this process flow. In the 'Order Lifecycle Management' swim lane there is a representative example of a dynamically generated orchestration plan that is created by Central Order Management (COM) from the customer order as described in the explanation above. You will see that one of the steps represented in this 'Sample Central Fulfilment Deliver Flow' is 'Provision Order'. This is a specific example of where the COM layer issues a Service Order down to the Provisioning/SM&O layer based on the specific customer order. This is what Oracle classifies as the SOM or 'Service Order Management' layer.

This is a fully automated process unless specific manual processes have been built into the design of the order orchestration processes.

[*Comms O2C Impl Guide*]:: Deliver Customer Order Flow: Page 7.6

- Escalating status of customer orders in accordance with local policy;

See monitoring jeopardy & escalations below.

- Undertaking necessary tracking of the execution process; (A)

A CSR or Customer can track the progress of their order through the status updates provided upstream to Siebel CRM from OSM during order execution. For detailed tracking of the execution process the OSM Task Web Client can be used. The Task Web Client provides the user interface for order tracking and operational reporting information. You use it to create, view, edit, track, and report on provisioning-level service orders and tasks in the OSM system.

[*OSM Task Web Client UG*]: (A) About the Task Web Client: 1-1 to 1-4

- Adding additional information to an existing customer order; (A)
- Modifying information in an existing customer order;
- Modifying the customer order status; (A)

In response to 1.1.1.5.6 (which is within the scope of RODOD), we discussed the various options a CSR or customer has for modifying their in-flight orders through out-of-the-box integration between Siebel CRM and OSM (e.g. revision, follow-on, and cancel orders). The OSM Task Web Client provides the ability for an Order Management back-office specialist to manually amend in-flight orders should the need arise.

 [*OSM Task Web Client UG*]: (A) Manually Amending Orders: 3-21 to 3-24

An Order Management back-office specialist can also add remarks and attach documents pertaining to each order using the Add Remark option. For example, if the task for an order has taken longer to complete than expected, you can add a remark explaining why this has happened.

 [*OSM Task Web Client UG*]: (A) Adding Additional Info to Orders: 3-13 to 3-16

 • Cancelling a customer order when the initiating sales request is cancelled;

In response to 1.1.1.5.6 (which is within the scope of RODOD), we discussed how a CSR or customer can cancel an in-flight order, and through out-of-the-box integration this cancellation flows through to OSM. The OSM Task Web Client also provides the ability for an Order Management back-office specialist to manually cancel in-flight orders should the need arise.

 [*OSM Task Web Client UG*]: (A) Cancelling Orders: 3-19 to 3-21

 • Monitoring the jeopardy status of customer orders, and escalating customer orders as necessary; (A)

Within OSM a jeopardy notification is a message that you can configure in Design Studio to occur under specific conditions, and to be sent to specific users or systems for escalation. You can configure jeopardy notifications to be sent once, periodically, or when certain conditions arise in an order or task to alert users or systems of processes, orders, or tasks that may be at risk.

 [*OSM Task Web Client UG*]: (A) Jeopardy Notifications: 3-23

Fallout occurs when one or more errors are identified that prevent an order from being processed normally. Order fallout can occur at any point in the order's lifecycle and in multiple places. If an order goes into a fallout state this can cause the order to go into jeopardy because it will not be fulfilled. To mitigate the risk of the order reaching jeopardy status OSM detects, reports, and resolves order fulfillment fallout incidents such as system, validation, and fulfillment errors. Oracle's Order-to-Activate integration automates the creation of trouble tickets in CRM when fallout occurs to take advantage of the rich notification, reporting, and management capabilities of CRM.

 [***Comms O2C Impl Guide***]: (A) Using Order Fallout Management in O2A: Page 21.1 to 21.16

 [*OSM Concepts*]: (A) Order Fallout Management: 11-1 to 11-4

and
 • Indicating completion of a customer order by modifying the customer order status.

Throughout the fulfillment process, OSM maps fulfillment function responses to common statuses, which are then aggregated into order line statuses and order header status values. The status

management capability automatically updates the corresponding sales order in CRM with relevant customer status and milestone values. OSM also updates CRM when order lines reach their point-of-no-return (PONR) to prevent the submission of new in-flight revision orders. It also updates CRM with any enrichment to order lines that may have taken place during fulfillment. Ultimately, for a successful order, each order line-item status and then the order header status will be set to 'Completed' through up-stream notifications from OSM.

On the completion of the order in CRM, the Asset Based Ordering (ABO) functionality in Siebel generates asset records against the customer's account based on the successfully completed order-lines. End-users can then use the Accounts screen to view the customer's Installed Assets, and if required create modify orders referencing the customer's existing assets.

[Comms O2C Impl Guide] : (A)
- Update Sales Order Overview: Page 16.1 to 16.3
- Understanding the Process Integrations for Sales Order Fulfillment: Page 9.1 – 9.8

Note that some specific product components may be delivered directly by suppliers/partners. In these cases the Track & Manage Customer Order Handling process is responsible for initiating requests, through S/P Requisition Management for the delivery by the supplier/partner of the specific product components. (A)

See Note 1: In cases where partners or suppliers are responsible for provisioning or fulfilling certain elements of a customer's order (e.g. 3rd party used for shipping or WFM, 3rd partner service provider), OSM's Central Order Management functionality automatically decomposes the order into sub-orders, each of which targets a particular fulfillment provider. Any of these fulfillment providers could be either in-house or a 3rd party supplier or partner. For example the logical topology could be; three in-house billing providers based on customer segment (wholesale, residential, and business), three provisioning stacks based on service family and geography (in-house Mobile, partner VoIP, partner Broadband), two shipping providers, one for in-house products and another for partner supplier products, finally - one 3rd party workforce management provider for CPE installation. OSM is responsible for orchestrating the requests to these fulfillment providers and monitoring the subsequent responses. An example of this type of topology is provided in the documented reference.

 [Comms O2C Impl Guide]: (A)
- Typical Topology: Page 7.4 to 7.5

4.1.1.4 *Level 3: 1.1.1.5.5 - Complete Customer Order*

Table 4.2 - Level 3: 1.1.1.5.5 - Complete Customer Order

LEVEL 3 PROCESS MAPPING DETAILS 1.1.1.5.5 - Complete Customer Order
Brief Description Manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase *Covered within the body of the Extended Description.* **Extended Description** The purpose of the Complete Customer Order processes is to manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase. 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. These processes are responsible for ensuring that any customer information required by other CRM processes is updated as part of the customer order completion. A/M *As described in response to '1.1.1.5.4 Track & Manage Customer Order Handling', OSM provides the central order management capability that manages the provisioning of a customer's order, delivering status updates to the CRM Sales Order as each milestone completes. Tasks that need to performed by the customer and tracked after the order has been successfully provisioned and before the order can be officially 'closed (such as end-to-end testing, training, etc.) can be tracked and recorded as 'Activities&Activity Plans' against the Order. For example if a customer is required to perform an series of end-to-end tests for a new product or service this can be recorded as an 'Activity Plan' against the order-line that relates to that product or service. The final order will only be 'Closed' once all associated Activities against the order have been completed.* Siebel Apps Admin Guide: (A/M) Activities: Page 189 to 190

4.1.1.5 *Level 3: 1.1.1.5.6 - Issue Customer Orders [Not assessed]*

4.1.1.6 *Level 3: 1.1.1.5.7 - Report Customer Order Handling*

Table 4.3 - Level 3: 1.1.1.5.7 - Report Customer Order Handling

LEVEL 3 PROCESS MAPPING DETAILS 1.1.1.5.7 - Report Customer Order Handling

Brief Description

Monitor the status of customer orders, provide notifications of any changes and provide management reports.

Extended Description

The objective of the Report Customer Order Handling processes is to monitor the status of customer orders, provide notifications of any changes and provide management reports. (A)

A CSR or Customer can track the progress of their order through the status updates provided upstream to Siebel CRM from OSM during order execution. For detailed tracking of the execution process the OSM Task Web Client can be used. The Task Web Client provides the user interface for order tracking and operational reporting information.

[*OSM Task Web Client UG*]: (A) About the Task Web Client: 1-1 to 1-4

The 'Viewing Orders' capability in OSM provides real-time visibility of orders, and allows an end-user to find orders, view order histories, and view order reports.

[*OSM Task Web Client UG*]: (A) Viewing Orders: 4-1 to 4-12

These processes are responsible for continuously monitoring the status of customer orders and managing notifications to processes and other parties registered to receive notifications of any status changes. Notification lists are managed and maintained by the Support Order Handling processes. (A)

As OSM processes customer orders, each order is continuously monitored tracking the order status, the execution of each task, the dependencies between tasks, etc.

[*OSM Concepts*]: (A) How OSM Processes an Order: 2-1 to 2-4

OSM provides a comprehensive notification framework. Notifications are used to alert users or systems to processes, orders, or tasks that may be at risk or to events that occur in the system. Notifications can be sent to users or they may trigger an automation plug-in to perform work in an up-stream or down-stream system.

[*OSM Task Web Client UG*]: (A) About Notifications: 3-23 to 3-27

These processes record, analyze and assess the customer order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Order Handling process. These specialized summaries could be specific reports required by specific customers. (A)

OSM also provides a dedicated reporting interface to allow reports to be generated using standard

ad-hoc query and reporting tools. Using the reporting interface, you can generate order overview, order history, pending order/task, process, task and notification reports. The Reporting Interface augments the reports that are available through the OSM Web Client.

[OSM Reporting Interface Guide]: (A) About the OSM Reporting Interface: Sections 1-1 to 1-6

Comprehensive sales and service metrics, pre-integrated through ETL's from the Siebel CRM system, provide the relevant metrics for analysing Orders through Oracle's Business Intelligence Enterprise Edition (OBIEE). For further order handling related management information, reports can be generated and OLAP cubes analysed using the SID certified Oracle Communications Data Model (OCDM).

4.1.1.7 *Level 3: 1.1.1.5.8 - Close Customer Order*

Table 4.4 - Level 3: 1.1.1.5.8 - Close Customer Order

LEVEL 3 PROCESS MAPPING DETAILS
1.1.1.5.8 - Close Customer Order

Brief Description

<mark>Close a customer order when the customer provisioning activities have been completed. Monitor the status of all open customer orders, and recognize that a customer order is ready to be closed when the status is changed to completed.</mark> (A)

Extended Description

<mark>The objective of the Close Customer Order processes is to close a customer order when the customer provisioning activities have been completed. These processes monitor the status of all open customer orders, and recognize that a customer order is ready to be closed when the status is changed to completed.</mark> (A)

Throughout the fulfillment process, OSM maps fulfillment function responses to common statuses, which are then aggregated into order line statuses and order header status values. The status management capability automatically updates the corresponding sales order in CRM with relevant customer status and milestone values. OSM also updates CRM when order lines reach their point-of-no-return (PONR) to prevent the submission of new in-flight revision orders. It also updates CRM with any enrichment to order lines that may have taken place during fulfillment. Ultimately, when all order components for the order are complete, OSM changes the order to the Completed state and communicates the status to the originating system, in this case Siebel CRM. The 'Track & Manage Customer Order Handling' process will then be responsible for closing the customer order in CRM and performing any post-order completion activities such as generating the customers 'Installed Asset' records.

[[Comms O2C Impl Guide]: (A)
- Update Sales Order Overview: Page 16.1 to 16.3
- Understanding the Process Integrations for Sales Order Fulfillment: Page 9.1 – 9.8

4.1.1.8 *Assessment Notes*

Generic notes that have been referenced within the assessment document have been provided here:

Note 1: *This part of the eTOM process description does not represent a direct process requirement, however this text has been provided as further information to contextualise the overall support for the level 3 process in question.*

Note 2: *This part of the eTOM process description refers to another L3 process area so is not part of the scope of this specific L3 process. This text has been provided as further explanation regarding how this maps to the related L3 process area.*

Note 3: *This part of the eTOM process description refers to another eTOM process that is not covered by the scope of this certification.*

4.1.1.9 *Supporting Evidence References (Works Cited)*

[Siebel Product Administration Guide]   Siebel Product Administration Guide

[*Comms O2C Impl Guide*]   Oracle Communications Order to Cash Integration Pack
                                         Implementation Guide for Siebel CRM, Oracle Order and
                                         Service Management, and Oracle Billing and Revenue
                                         Management 11.3

[Siebel CRM IP for OM O2C Impl Guide]   Siebel CRM Integration pack for Oracle Order Management:
                                         Order to Cash Implementation Guide

[OSM Task Web Client UG]   Oracle Communications Order and Service Management Task
                                         Web Client User Guide 7.2.2

[OSM Concepts]   Oracle Communications Order and Service Management
                                         Concepts 7.2.2

[OSM Reporting Interface Guide]   Oracle Communications Order and Service Management
                                         Reporting Interface Guide 7.2.2

4.1.1.10 *Level 2: 1.1.1.5 - Order Handling - Scores*

Table 4.5 - Level 2: 1.1.1.5 - Order Handling - Scores

Level 2: 1.1.1.5 Order Handling [5/7]		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.1.1.5.1 - Determine Customer Order Feasibility		0
1.1.1.5.2 - Authorize Credit		0
1.1.1.5.4 - Track & Manage Customer Order Handling		**5**
	1.1.1.5.4.1 - Manage Customer Order	100%
	1.1.1.5.4.2 - Track Customer Order	100%
1.1.1.5.5 - Complete Customer Order		**5**
	1.1.1.5.5.1 - Manage Customer Information	100%
	1.1.1.5.5.2 - Manage Customer Interaction	100%
1.1.1.5.6 - Issue Customer Orders		0
1.1.1.5.7 - Report Customer Order Handling		**5**
	1.1.1.5.7.1 - Monitor Customer Order Status	100%
	1.1.1.5.7.2 - Manage Customer Order Status Notification	100%
	1.1.1.5.7.3 - Report Customer Order Status	100%
1.1.1.5.8 - Close Customer Order		**5**

4.2 Level 1: 1.1.2 - Service Management & Operations

4.2.1 Level 2: 1.1.2.1 - SM&O Support & Readiness

4.2.1.1 *Level 3: 1.1.2.1.1 - Manage Service Inventory*

Table 4.6 - Level 4: 1.1.2.1.1.1 Manage Service Inventory Database and Processes

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.1.1 Manage Service Inventory Database and Processes

Brief Description

Establishing, managing and administering the enterprise's service inventory. **AM**

Extended Description

Identifying the inventory-relevant information requirements to be captured for service infrastructure and service instances;

Identifying, establishing and maintaining service inventory repository facilities; **M**

UIM plays the central role in the Managing Service Inventory Database and processes within RSDOD; UIM is the service inventory repository and database. All resources that make up the service inventory are created and managed in UIM (Inventory Run Time) and specified & administered in Design Studio (Inventory Design Time). The resources managed in UIM as part of the service inventory are aligned with the TMF Information Framework (SID).

[**UIM_Concepts**] **Chapter 1, Section: About the UIM Information Model, pp16-22.**

Specifications are created in Design Studio and deployed into UIM (Run Time). In support of this process these specifications fall into two categories: Service Inventory Resources and Service/Service Configurations. Data attributes are added to specifications in support of identifying inventory-relevant information requirements. This data attribution is implemented by the use of data elements tagged as Characteristics. UIM's use of characteristics is aligned with the Characteristic Spec/Characteristic Value pattern from the TMF Information Model.

[**UIM_Concepts**] **Chapter 3, Section: Designing Entity Specifications, pp32-36.**

[**UIM_Concepts**] **Chapter 3, Section: Working with Characteristics, pp36-37.**
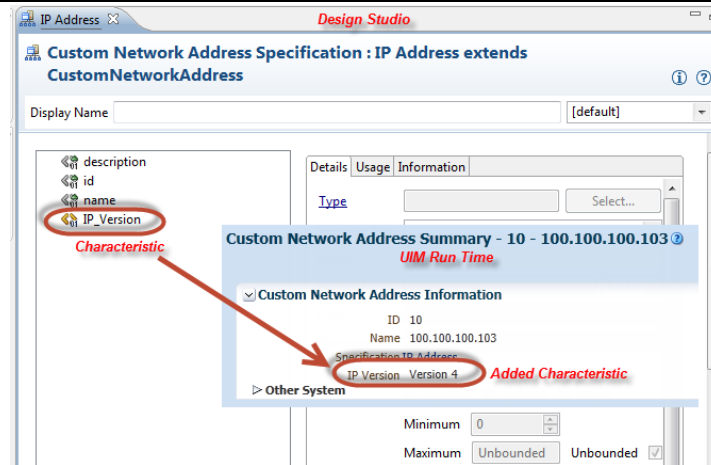
The service inventory relevant information is defined in the Service and Service Configuration specification. These specifications are used to define the CFS and RFS. Within these specifications service inventory relevant information is stored. The In addition, the configuration enables life cycle management and definition of service inventory options (configuration items). The Service and Service Configuration specifications and entities are aligned with the Information Framework level 1 ABEs.
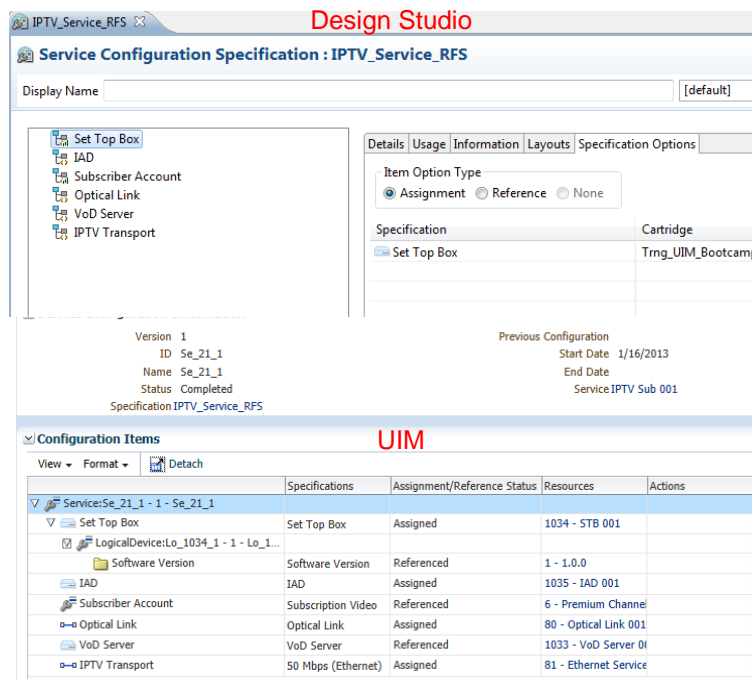
Establishing and managing the service inventory management and information capture processes; AM

The Service Configuration is an essential part of design and assign in the RSDOD solution. Service Orders are orchestrated in SOM layer and passed from OSM to UIM where the Service Configuration (Service Order) is used in design and assign. This configuration is used to calculate the Technical *I* Order for activation.

[OSS_Guidelines] Designing Service Configurations in UIM, pp21-22.
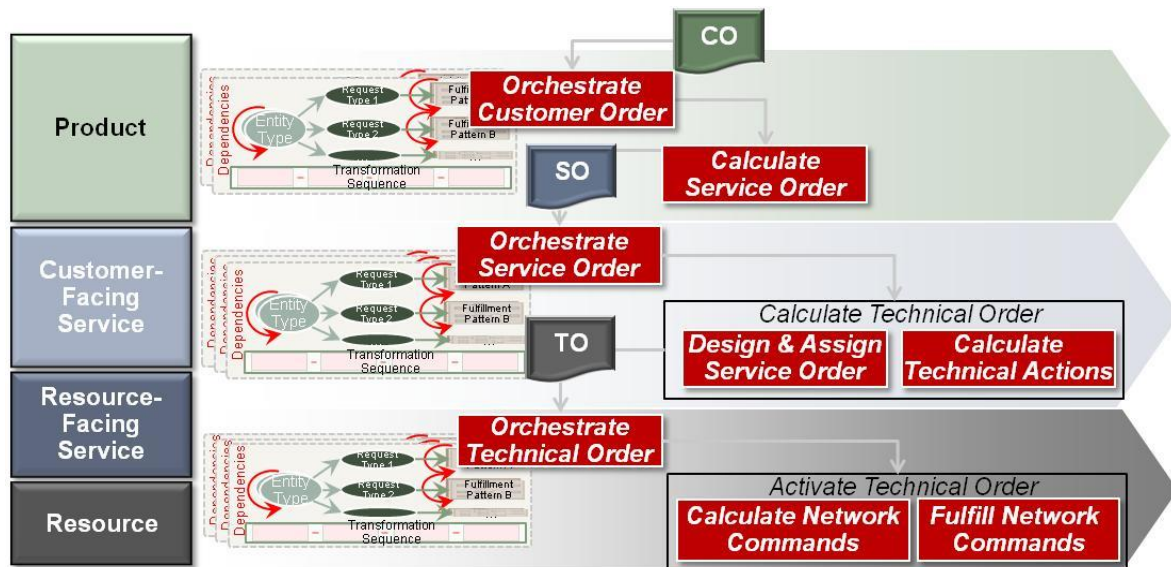
[UIM_Concepts] Chapter 6: Products and Services, pp83-88.

[DS_InventoryOH] Chapter 5: Working with Product and Service Specifications, pp61-66.

Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download service data to and from the service inventory **AM**

Service Inventory changes such as create, modify and delete are managed in UIM with the Business Interaction entity. UIM is aligned with the Information Framework in this area as the Business Interaction is a level 1 ABE.

The UIM Service Fulfillment Web service defines operations that enable you to create and modify business interactions, through which you can create and modify services, service configurations, and service configuration items. These are invoked by OSM during the Design & Assign of a service order.

Business Interaction Summary - 8 - KA_test   Actions ▾

Business Interaction Information   Edit

    ID 8   Effective Date 1/31/2011

    Name KA_test   Status In Progress

    Specification BATBISpec   Description

Business Interaction Hierarchy

Parent Business Interactions

Business Interaction Items

Items ▾ View ▾   ⊞ Transfer Items   ✖ Delete   ▦   ▣ Detach

Item Type	Specification	ID	Name	Action
Logical Device	SIMCard	18	SIM1197	Add
Telephone Number	BATTNSpec	6671918247	6671918247	Add

Total Results: 2

[**UIM_Concepts**] **Chapter 12, Section: About Business Interactions, pp171-179.**

[**OSS_Guidelines**] **Designing Service Configurations in UIM, pp21-22.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.7 - Level 4: 1.1.2.1.1.2 Perform Service Inventory Audit Tests

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.1.2 Perform Service Inventory Audit Tests

Brief Description

Performing audit if inventory repository accurately captures and records all identified service infrastructure and service instance details. **A**

Extended Description

Ensuring the service inventory repository accurately captures and records all identified service infrastructure and service instance details, through use of automated or manual audits; **A**

In UIM, each Service (CFS) may have a Service Configuration (RFS). Over time there are updates, modifies and deletes to the Service. These service inventory changes are managed with configurations and configuration items. Below is an example of a service that includes such a change. The first configuration creates the RFS (IPTV for the video service CFS) and the second configuration adds a second set top box in support of the IPTV RFS. In support of the Performing Service Inventory Audit Tests process service configurations include the entire lifecycle for the service and its service inventory. These lifecycles provide the details required to perform service inventory audits.

UIM can be extended by using rule sets. A rule set is custom code that extends existing UIM code at a specified point. Once a rule set is created it can be operate on a global or specification basis. For auditing purposes rule sets can be run on an adhoc basis to support various auditing processes.

[UIM_Concepts] Chapter 3, Section: Extending Specifications with Rulesets, p36.

[UIM_Concepts] Chapter 6: Products and Services, pp83-88.

[UIM_DevGuide] Chapter 8: Extending UIM through Rulesets, pp123-152.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.8 - Level 4: 1.1.2.1.1.3 Track and Monitor Service Inventory Capabilities

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.1.3 Track and Monitor Service Inventory Capabilities

Brief Description

Monitoring and reporting on the usage and access to the service inventory and the quality of the data maintained in it. **A**

Extended Description

Tracking and monitoring of the usage of, and access to, the service inventory repository and associated costs, and reporting on the findings; **A**

The service inventory is managed in UIM through various resource entities. During readiness activities these resources are created in UIM and available for assignment. Over time these resources are consumed by service configurations. Each resource has an assignment status that can be used to support tracking and monitoring processes. Various reports can be written for monitoring and reporting. Rulesets can also be written to run on an adhoc basis to report on utilization and cost. Additionally, characteristics can be added to resource specifications to track associated cost information.

[**UIM_Concepts**] Chapter 3, Section: Extending Specifications with Rulesets, p36.

[**UIM_Concepts**] Chapter 4: Life Cycles and Statuses, pp41-56.

[**UIM_Concepts**] Chapter 6: Products and Services, pp83-88.

[**UIM_DevGuide**] Chapter 8: Extending UIM through Rulesets, pp123-152.

[**UIM_SampleReports**] Section 3.1.1.1 Report Descriptions, p6.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.9 - Level 4: 1.1.2.1.1.4 Identify Service Inventory Issues and Provide Reports and Warnings

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.1.4 Identify Service Inventory Issues and Provide Reports and Warnings

Brief Description

Managing and Identifying any service Inventory Repository issues and providing warnings. **AM**

Extended Description

Identifying any technical driven shortcomings of the service inventory repository, and providing input to Service Development & Management processes to rectify these issues. **AM**

In UIM services are defined by using the Service and Service Configuration specifications. The service/service configuration entities and specifications are aligned with the Information Framework level 1 ABE's. The Service Configuration specification defines the resources and technology that are used for a particular resource facing service. For example, if a service provider is offering 3G and LTE mobile services the CFS determines the appropriate RFS. The RFS defines the technology limitations. For example, a service is provisioned for mobile service and it is determined that the service will be realized via the LTE RFS. Within the LTE RFS, only LTE handsets can be assigned to the service. This is defined as a configuration on the Service Configuration specification. The architecture of UIM eliminates any technical driven shortcomings.

[UIM_Concepts] **Chapter 6: Products and Services, pp83-88.**

[DS_InventoryOH] **Chapter 5: Working with Product and Service Specifications, pp61-66.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.2.1.2   *Level 3: 1.1.2.1.2 - Enable Service Configuration & Activation*

Table 4.10 - Level 4: 1.1.2.1.2.1 Plan & Forecast Service Infrastructure Requirements and Manage Capacity Planning

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.1 Plan & Forecast Service Infrastructure Requirements and Manage Capacity Planning

Brief Description

Planning and deployment of new and/or modified service infrastructure to ensure availability of sufficient service infrastructure to support the Service Provisioning processes, and monitoring, managing and reporting on the capability of the Service Provisioning processes. **AM**

Extended Description

Forecasting at an operational level service infrastructure volume requirements and run-out timeframes;

Managing capacity planning associated with the deployment of new and/or modified service infrastructure; **AM**

In UIM, the service inventory is created via various resource entities. These entities are managed through life cycles and statuses.

Label Number	Description	Status
1	Create a resource.	Installed
2	Deactivate a resource.	Unavailable
3	Activate a resource.	Installed
4	Delete an installed resource.	N/A
5	Delete an unavailable resource.	N/A

As part of readiness, these resources are created in inventory. Rulesets can also be written to automate the creation of resources in support of service fulfillment. Additionally, UIM can use Inventory Groups to manage capacity for service inventory. Inventory groups organize and correlate entities in your inventory. Rulesets can be written and defined with Inventory Group specifications. For example, an Inventory Group can be created that includes mobile handsets. A rule set can then be written to automate the creation of additional resources at a certain capacity threshold.

Forecasting of service infrastructure volume requirements can be supported by the data in UIM. Custom reports are written to provide metrics based on the service inventory used by the RFS/Service Configuration. Data points for these metrics might include:

- Resources assigned (By type or spec)
- Resources unassigned (By type or spec)

- Services created over a period of time
- Etc…

[UIM_Concepts] Chapter 3: Design Studio Overview, pp29-40.

[UIM_Concepts] Chapter 6: Products and Services, pp83-88.

[UIM_Concepts] Chapter 1, Section: Understanding Resources, p18.

[UIM_DevGuide] Chapter 8: Extending UIM through Rulesets, pp123-152.

Explanatory

Not used for this process element.

Mandatory

Not used for this process element.

Optional
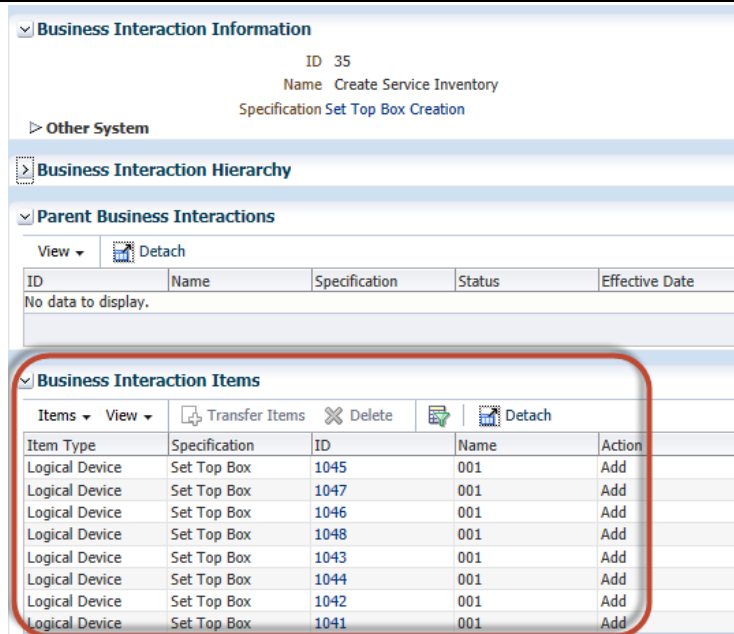
Not used for this process element.

Interactions

Not used for this process element.

LEVEL 4 PROCESS MAPPING DETAILS 1.1.2.1.2.2 Establish, Manage, and Develop Service Infrastructure Organization, Tools and Processes
Brief Description Establishing, Creating, Managing, and developing organization, Tools and processes for operations of new/or modified service infrastructure. **AM**   **Extended Description** Establishing and monitoring of organizational arrangements to support deployment and operation of new and/or modified service infrastructure; Creating, deploying, modifying and/or upgrading of service infrastructure deployment support tools (including service Inventory) and processes for new and/or modified service infrastructure; **AM**   UIM can support the deployment and operations of new or modified service infrastructure through the use of entity status, business interactions and specification changes. First the entity status can be changed to de-activated for maintenance and other operational activities when resources need to be taken out of assignable service inventory. Business Interactions can be used during the service infrastructure development state. Business Interactions can be created to manage the planning and development stage. Business Interactions make it possible for you to plan activities now and execute them in UIM at a time of your choosing. For example, a Business Interaction is created to add eight set top boxes that are being planned to support a new technology but not in your assignable service inventory. Once the technology upgrade is complete the Business Interaction can be completed and the resources will be available for assignment.

Finally, when upgrading a technology you may want to discontinue future use of a resource that is part of your service inventory. This can be managed through the specification properties. When a resource has been discontinued you can set an End Date on the specification. This will end its availability when creating a resource but still be available to support existing resources. Likewise you can set a start date for a new resource.

[UIM_Concepts] Chapter 3: Design Studio Overview, pp29-40.

[UIM_Concepts] Chapter 4: Life Cycles and Statuses, pp41-56.

[UIM_Concepts] Chapter 12, Section: About Business Interactions, pp171-179.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.
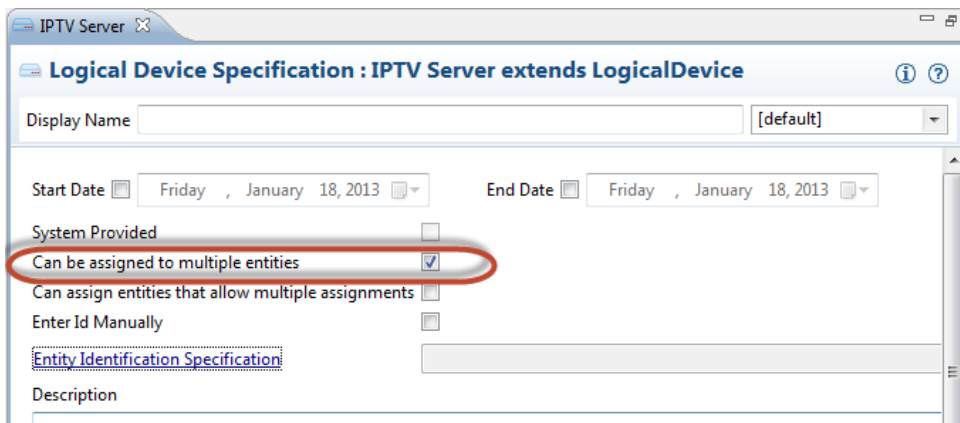
Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.12 - Level 4: 1.1.2.1.2.3 Develop and Implement Service Infrastructure Capacity and Operational Rules and Procedures

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.3 Develop and Implement Service Infrastructure Capacity and Operational Rules and Procedures

Brief Description

Developing and implementing the capacity deployment rules and administrating the infrastructure operational procedures. **AM**

Extended Description

• Developing and promulgating service infrastructure capacity deployment rules and controls; AM

• Authoring, reviewing and approving operational procedures developed by Service Development & Management processes prior to service infrastructure deployment; **AM**

UIM supports capacity deployment rules through resource specifications. There are two types of capacity management in UIM. Certain resources such as an IPTV Server may support many services and the specification must define this type of capacity arrangement. This is illustrated in the graphic below. In other cases resources have a 1 to 1 capacity arrangement. Meaning that once the resource is assigned it is no longer available. Additionally, rule sets can be associated with specifications to add custom logic in support of capacity deployment rules and administering the service inventory infrastructure.

In cases such as network devices and connectivity the specification defines capacity. For example, with connectivity the number of children service trails/circuits is defined by the capacity provided and capacity required specifications. In the case of a network, device capacity is defined by the associated device interfaces. For example, if you have a router with ten device interfaces and device interface A is assigned to a service it's no longer available for assignment.

[UIM_Concepts] Chapter 3: Design Studio Overview, pp29-40.

[UIM_Concepts] Chapter 4: Life Cycles and Statuses, pp41-56.

[UIM_Concepts] Chapter 12, Section: About Business Interactions, pp171-179.

[UIM_DevGuide] Chapter 8: Extending UIM through Rulesets, pp123-152.

Explanatory

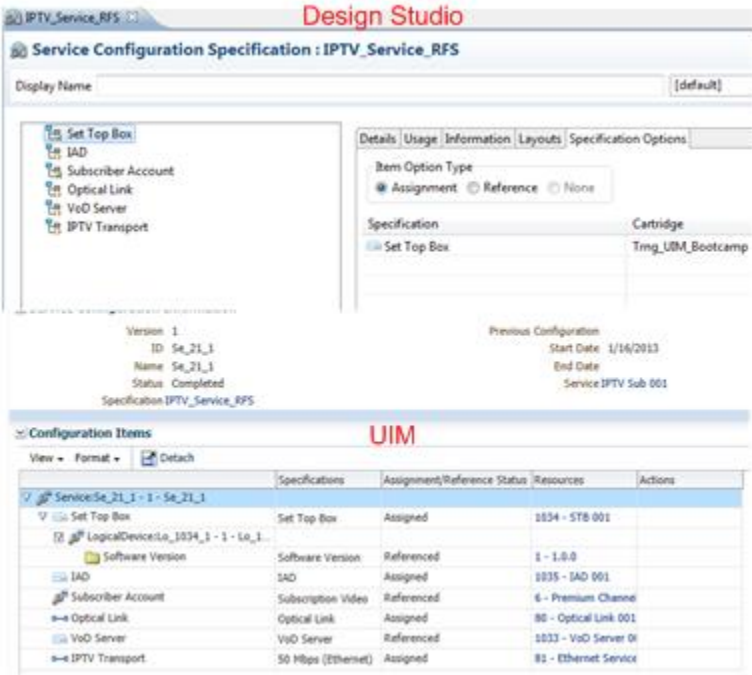Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.13 - Level 4: 1.1.2.1.2.4 Perform Service Infrastructure Acceptance Test and Address & Monitor the Change

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.4 Perform Service Infrastructure Acceptance Test and Address & Monitor the Change

Brief Description

Performing acceptance test during the hand over process of new and/or modified service infrastructure. Also monitoring the new and/or modified infrastructure and addressing the operational limitations. **AM**

Extended Description

Testing and acceptance of new and/or modified service infrastructure as part of the handover procedure from the Service Development & Management processes to Operations;

Detecting service infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Service Development & Management processes;

AM

UIM supports this process through its design time and run time applications. Prior to new service infrastructure being deployed specifications must be developed or modified to support the new entities. If legacy infrastructure is being retired the specifications supporting that infrastructure should be retired as well. This is accomplished by populating an end date on the specification as illustrated in the graphic. The specifications created to support the new infrastructure should include a start that they should be available for use in inventory. Additionally, the Service Configuration specifications should also be update to reflect the change in infrastructure where necessary.

In the run time application either manually or through automation infrastructure can be planned for in a business interaction. Once the resources have been tested and accepted by operational processes the BI can be completed and become part of live inventory. Additionally, resource status

can be used to manage resource acceptance.

[UIM_Concepts] Chapter 3: Design Studio Overview, pp29-40.

[UIM_Concepts] Chapter 4: Life Cycles and Statuses, pp41-56.

[UIM_Concepts] Chapter 12, Section: About Business Interactions, pp171-179.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.14 - Level 4: 1.1.2.1.2.6 Monitor, Report and Release Mgmt. of Service Infrastructure and Capacity Utilization

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.6 Monitor, Report and Release Mgmt. of Service Infrastructure and Capacity Utilization

Brief Description

<mark>Monitoring and reporting the capacity utilization of existing infrastructure.</mark> **AM**

Extended Description

<mark>Monitoring capacity utilization of deployed service infrastructure to provide early detection of potential service infrastructure shortfalls;</mark> **AM**

Capacity & Conditions allow early detection of potential service issues based on consumption during manual or automated processes.

[**UIM_Concepts**] **Chapter 5, Section: About Capacity, pp61-66.**

[**UIM_Concepts**] **Chapter 5, Section: About Consumption, pp66-70.**

You can raise a warning based on capacity & consumption using a Condition.

[**UIM_Concepts**] **Chapter 5, Section: Understanding Conditions, p70.**

<mark>Monitoring of, and reporting on, service infrastructure and resource instance currency and version management;</mark> **AM**

UIM provides search and manual inspection of entities through the User Interface, including capacity & consumption:

[**UIM_OnlineHelp**] **Chapter 1, Section: Searching for Entities, pp18-20.**

Depending on the entity you can see various consumption relationships & capacity. For an outline of the consumption relationships see:

[**UIM_Concepts**] **Section 5: Understanding Assignment, table 5-3.**

For fully automated reporting, typically an enterprise-level reporting is required. UIM allows integration with third-party Business and/or Network Intelligence solutions, often both. UIM Provides sample reports that can be extended, for example using Oracle's OBIEE (an optional component outside of RSDOD). A sample report on capacity as illustrated in the graphic below based on data for capacity maintained within in UIM.

[UIM_SampleReports] Section 3.1.1.1 Report Descriptions, p6.

Pipe Capacity by Terminating Place
Time run: 9/26/2008 9:53:12 AM

Terminating Place ID 1 [Allen ▼]

Pipe Name	Pipe ID	Terminating Place ID 2	Total Amount Provided (Mbps)	Total Amount Consumed (Mbps)	Number of Consumers
FastEthernet/1/CE1/UPE1	FastEthernet/1/CE1/UPE1	Plano	90.00	98.30	1
FastEthernet/2/CE2/UPE2	FastEthernet/2/CE2/UPE2	Plano	90.00	98.30	1

Return - Modify - Refresh - Print - Download - Create Bookmark Link

Additionally, UIM can be integrated with Oracle Communications Network Intelligence (an optional component outside of the RSDOD solution) for advanced planning, forecasting, monitoring, and outage management in support of planning and service assurance processes.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.15 - Level 4: 1.1.2.1.2.7 Optimize Existing Service Infrastructure Utilization

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.7 Optimize Existing Service Infrastructure Utilization

Brief Description

Optimizing the infrastructure capacity utilization. **A**

Extended Description

Reconfiguring and re-arranging under-utilized deployed service infrastructure **A**

UIM supports the Optimize Existing Service Infrastructure Utilization process. There are a couple ways that UIM optimizes service infrastructure. For connectivity, path analysis is used to optimize the path used in connectivity to support the service provisioning process. Rule Sets can also be created to build customized logic in support of optimizing resources. Inventory groups can be created to manage resources by groupings such as serving areas and other geographic or business groupings. Additionally, service configurations are used to support this process as well.

[UIM_Concepts] Chapter 3: Design Studio Overview, pp29-40.

[UIM_Concepts] Chapter 9: Working with Pipe Connectivity, pp111-144.

[UIM_DevGuide] Chapter 8: Extending UIM through Rulesets, pp123-154.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.16 – Level 4: 1.1.2.1.2.9 Update Service Inventory Record

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.1.2.9 Update Service Inventory Record

Brief Description

Updating the inventory record. **A**

Extended Description

Updating the Service Inventory of any changes to the available service infrastructure capacity. **A**

UIM supports the Update Service Inventory process as part of its design and assign activity at the technical order layer. UIM receives a request to update a configuration via the service fulfillment web service. This action creates a business interaction in UIM. The business interaction manages the inventory record update. Once the BI is complete the technical actions are calculated and the technical order is orchestrated.
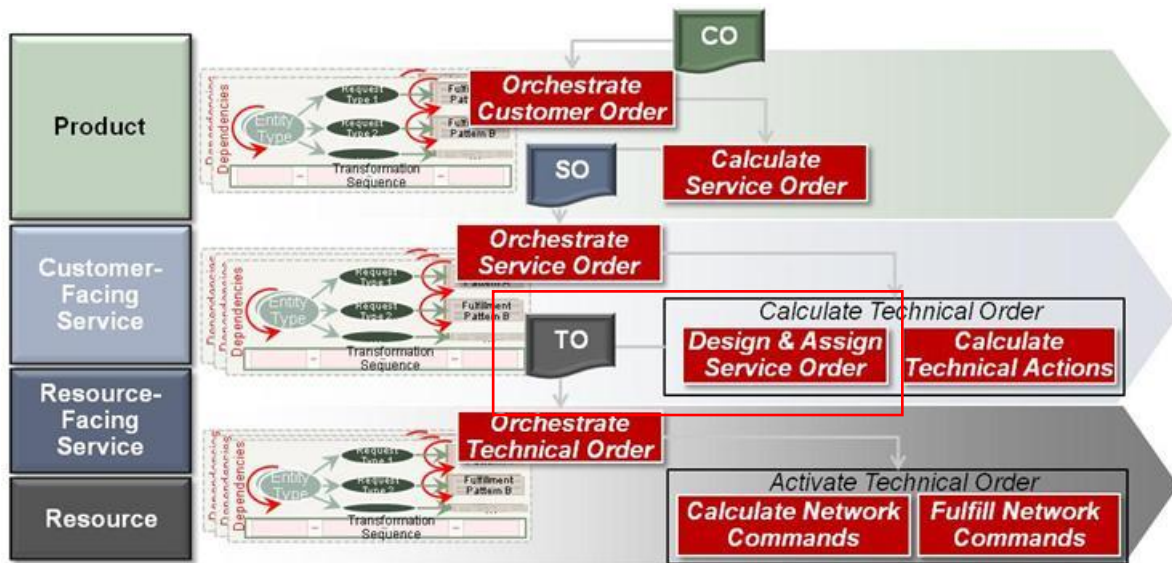
[**DS_InventoryOH**] **Chapter 5: Working with Product and Service Specifications, pp61-66.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.2.1.3   *Level 3: 1.1.2.1.3 - Support Service Problem Management [Not assessed]*

4.2.1.4   *Level 3: 1.1.2.1.4 - Enable Service Quality Management [Not assessed]*

4.2.1.5   *Level 3: 1.1.2.1.5 - Support Service & Specific Instance Rating [Not assessed]*

4.2.1.6 *Supporting Evidence References (Works Cited)*

[DS_InventoryOH]   Oracle Communications Design Studio Modeling Inventory 7.2.2.

This document explains how to use Oracle Communications Design Studio to model inventory used in UIM.

[OSS_Guidelines]   Guidelines and Best Practices OSS Solution Development, Release 7.2.2

Note: This document is available to download by support paying Customers from My Oracle Support.

[UIM_Concepts]   Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

[UIM_DevGuide]   Oracle Communications Unified Inventory Management Developers Guide 7.2.2.

This guide explains how to extend Oracle Communications Unified Inventory Management (UIM) through standard Java practices using Oracle Communications Design Studio, which is an Eclipse-based integrated development environment. This guide includes references to both applications, and often directs the reader to see the Design Studio Help and the UIM Help for instructions on how to perform specific tasks.

[UIM_OnlineHelp]   Oracle Communications Unified Inventory Management Online Help Release 7.2.2.

This document explains how to use Oracle Communications Unified Inventory Management (UIM).

[UIM_SampleReports] OBIEE Sample Reports for Oracle Communications Unified Inventory Management.

This document describes the technical details for the Oracle Business Intelligence Enterprise Edition (OBIEE) sample reports implementation. This is not a design specification, but instead provides additional information intended to explain how to install, enhance or change the use cases implemented.

Note: This document is available to download by support paying Customers from My Oracle Support.

4.2.1.7 *Level 2: 1.1.2.1 - SM&O Support & Readiness – Scores*

Table 4.17 - Level 2: 1.1.2.1 - SM&O Support & Readiness – Scores
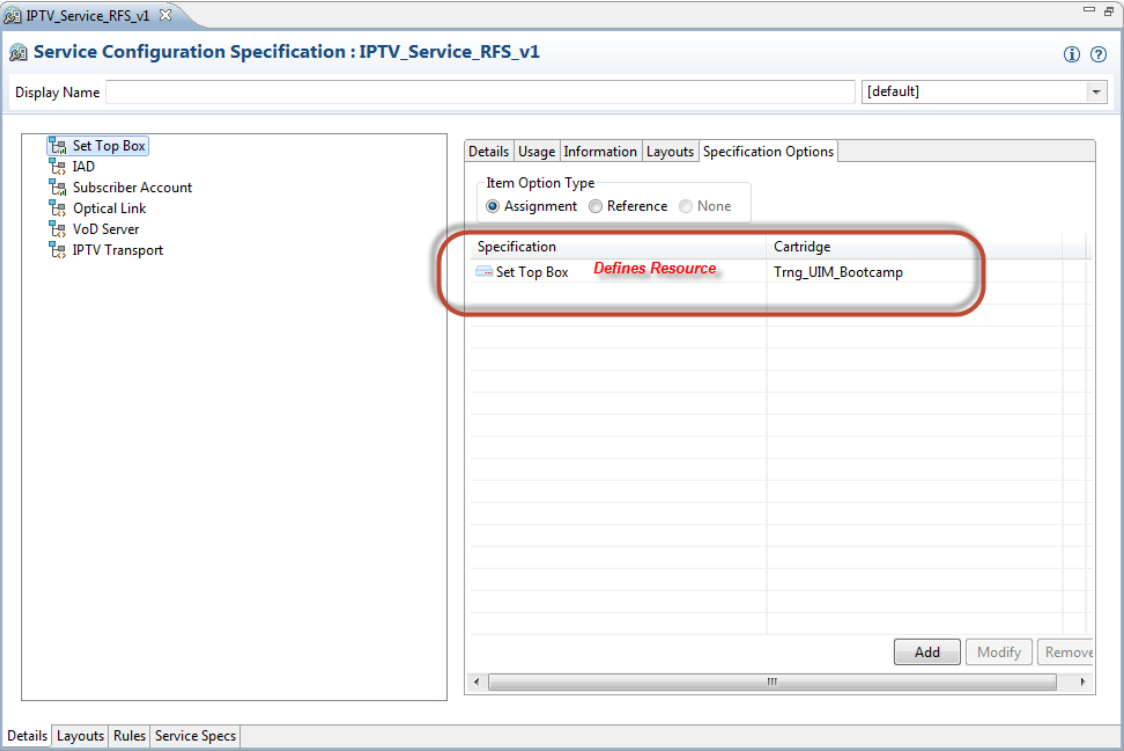
Level 2: 1.1.2.1 - SM&O Support & Readiness [2/5]		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.1.2.1.1 - Manage Service Inventory		**5**
	1.1.2.1.1.1 - Manage Service Inventory Database and Processes	100%
	1.1.2.1.1.2 - Perform Service Inventory Audit Tests	100%
	1.1.2.1.1.3 - Track and Monitor Service Inventory Capabilities	100%
	1.1.2.1.1.4 - Identify Service Inventory Issues and Provide and Reports and Warnings	100%
1.1.2.1.2 - Enable Service Configuration & Activation		**5**
	1.1.2.1.2.1 - Plan & Forecast Service Infrastructure Requirements and Manage Capacity Planning.	100%
	1.1.2.1.2.2 - Establish, Manage, and Develop Service Infrastructure Organization, Tools and Processes	100%
	1.1.2.1.2.3 - Develop and Implement Service Infrastructure Capacity and Operational Rules and Procedures	100%
	1.1.2.1.2.4 - Perform Service Infrastructure Acceptance Test and Address & Monitor the Change	100%
	1.1.2.1.2.6 - Monitor, Report and Release Mgmt. of Service Infrastructure and Capacity Utilization	100%
	1.1.2.1.2.7 - Optimize Existing Service Infrastructure Utilization	100%
	1.1.2.1.2.9 - Update Service Inventory Record	100%
1.1.2.1.3 - Support Service Problem Management		**0**
1.1.2.1.4 - Enable Service Quality Management		**0**
1.1.2.1.5 - Support Service & Specific Instance Rating		**0**

4.2.2   Level 2: 1.1.2.2 - Service Configuration & Activation

4.2.2.1   *Level 3: 1.1.2.2.1 - Design Solution*

Table 4.18 - Level 4: 1.1.2.2.1.1 Develop Overall Service Design

LEVEL 4 PROCESS MAPPING DETAILS 1.1.2.2.1.1 Develop Overall Service Design
Brief Description Develop an overall service solution design for a particular customer, including customer premises equipment, operational methods, resource assignments and pre-order feasibility;   **Extended Description** Not used for this process element   **Explanatory** Not used for this process element   **Mandatory** Develop an overall service solution design for a particular customer, including customer premises equipment, operational methods, resource assignments and pre-order feasibility; M *A service solution is designed in Oracle Communications Design Studio as illustrated in the graphic below. The service solution is realized through the Service and Service Configuration specifications. A service represents the way that a product is realized and delivered to a customer. For example, if you sell DSL Gold as a product, it is delivered as a DSL Gold service, enabled by appropriate resources. You define Service specifications to record basic information about the service and you define Service Configuration specifications to record versions of sets of facts about the service. As these facts evolve over time, you can create new configuration versions.* *Service and Service Configuration specifications define resources such as customer premises equipment, operational methods, resource assignments and the instance of these entities enable pre-order feasibility. These specifications are part of an inventory project which is packaged as a JAR file and deployed to the UIM run time application.*

 [UIM_Concepts] Chapter 6: Products and Services, p.83.

Optional

Not used for this process element

Interactions

Not used for this process element

Table 4.19 - Level 4: 1.1.2.2.1.2 Develop Service Implementation Plan

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.1.2 Develop Service Implementation Plan

Brief Description

Develop an implementation plan considering training and operational support measures and needs, such as the proper parameter information for the Service Quality Management process;

· Consideration of current and future service and underlying resources infrastructure, as well as expected solution results, budget, duration and risks;

· Consideration of the time schedule according with customer requirements;

· Ensure service and provisioning efficiency;

· Undertaking a business assessment, ensuring an appropriate time-to-revenue as a result of the service and underlying resource investment;

Extended Description

Not used for this process element

Explanatory

Consideration of current and future service and underlying resources infrastructure, as well as expected solution results, budget, duration and risks;

· Consideration of the time schedule according with customer requirements;

· Ensure service and provisioning efficiency;

· Undertaking a business assessment, ensuring an appropriate time-to-revenue as a result of the service and underlying resource investment;

Mandatory

Develop an implementation plan considering training and operational support measures and needs, such as the proper parameter information for the Service Quality Management process; M

UIM supports the development of an implementation plan specifically for items such as parameter information for the Service Quality Management process by decorating service and resource specifications with characteristics (data attribution). The graphic below illustrates the use of characteristics with a resource specification (QoS).

Characteristics provide a means of storing specific items of information about an entity that are not present by default. For example, if you define a specification for a particular type of equipment, you can add characteristics that describe vendor-specific features of the equipment. When you create

entities in UIM based on a specification that includes characteristics, those characteristics appear automatically in the entities.

From the point of view of Design Studio, characteristics are data elements. You tag these data elements as characteristics, which makes them available for use in entity specifications. See the Design Studio Help for more information about data elements.

In Design Studio, characteristics are displayed on the **Characteristics** *tab of specification editors and are also included in the list of data elements visible in the Data Schema editor.*
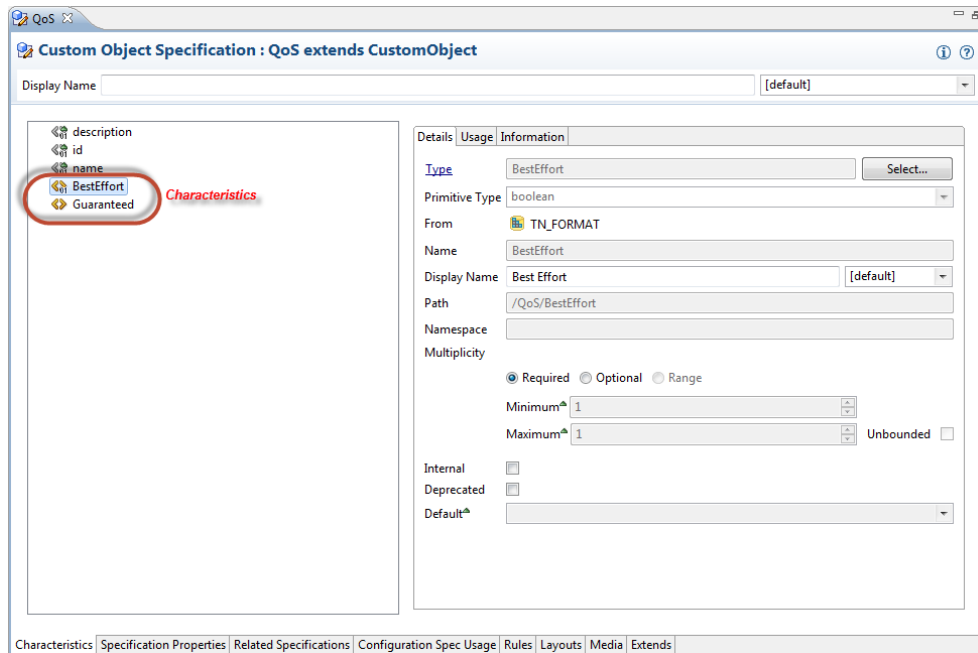
[**UIM_Concepts**] **Chapter 3: Design Studio Overview, p.29.**

Optional

Not used for this process element

Interactions

Not used for this process element

Table 4.20 - Level 4: 1.1.2.2.1.3 Develop Detailed Service Design

LEVEL 4 PROCESS MAPPING DETAILS 1.1.2.2.1.3 Develop Detailed Service Design

Brief Description

Develop a detailed design identifying the relevant service orders to be issued to the Implement, Configure & Activate Service process and the Allocate Specific Service Parameters to Services processes.

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Develop a detailed design identifying the relevant service orders to be issued to the Implement, Configure & Activate Service process and the Allocate Specific Service Parameters to Services processes. A

The orchestration feature of the RSDOD solution can decompose the service order. One of the key activities in the generated orchestration plan in OSM is the DesignFunction function, which is responsible for the "design and assign" activity – that is, developing the service design by interacting with UIM to capture the service actions and its input parameters from the service order onto a business interaction.

The OSS reference implementation in Mobile GSM demonstrates this repeatable orchestration pattern as a service-agnostic cartridge.

 [OSS_Guidelines] Section: Modeling Services and Resources in OSS Suite Applications, pg 16.

"Within inventory, a service action is "designed" during the provisioning process (within the context of fulfilling a service order that is being orchestrated as a part of fulfilling a customer order) to produce a pending configuration of a service – that is, a service configuration version that is not yet realized in the network. This pending configuration is the plan for what activities must be executed to realize the services in the network."

For UIM, the Capture Interaction web service supports this process, which manages the configuration of the service through the creation of a Business Interaction. Such Business Interactions are UIM entities that manage change in a separate context and once completed become part of live inventory. Through such business interactions, the RSDOD solution can manage services and connectivity in UIM, including the relationships between services and the relationships between pipes, as well as the resources associated with them.

[UIM_DevGuide] Chapter 9 – Integrating UIM Through Web Services.

Once DesignFunction is complete, orchestration plan continues to execute the CalculateDeliveryPlan activity based on the computed service design, which realizes the Implement, Configure & Activate Service (1.1.2.2.4) process.

Optional

Not used for this process element

Interactions

Not used for this process element

4.2.2.2 *Level 3: 1.1.2.2.2 - Allocate Specific Service Parameters to Services*

Table 4.21 - Level 4: 1.1.2.2.2.1 Determine Service Parameter Availability

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.2.1 Determine Service Parameter Availability

Brief Description

Where the Allocate Specific Service Parameters to Services processes are requested by a pre-feasibility service order, or by the Design Services processes, these processes determine whether the requested service parameters are available.

Extended Description

Not used for this process element

Explanatory

Where the Allocate Specific Service Parameters to Services processes are requested by a pre-feasibility service order, or by the Design Services processes,

Mandatory

These processes determine whether the requested service parameters are available. A

As part of the DesignFunction activity in the service order orchestration plan, UIM determines whether the requested service parameters are available. These configuration items may be in the form of 1) a device, 2) a logical resource, or a 3) Resource-Facing Service (RFS).

[OSS_Guidelines] [OSS_Guidelines]Section: Modeling Service Features, p.17. *Provides many illustrative examples of service configuration items in GSM mobile domain.*

By invoking the Capture Interaction service fulfillment web service, UIM determines the feasibility of a service order, which manages the service and service configuration. The Service Configuration is created and if it can be fulfilled, it notifies OSM that the service order is feasible. If the order is not required the Business Interaction is cancelled and the service is not fulfilled.

[OSS_Guidelines] Section: Designing Service Configurations, p.21.

[UIM_DevGuide] Chapter 9: Integrating UIM Through Web Services, p.153.

Optional

Not used for this process element

Interactions
Not used for this process element

Table 4.22 - Level 4: 1.1.2.2.2.2 Reserve Service Parameters

LEVEL 4 PROCESS MAPPING DETAILS 1.1.2.2.2.2 Reserve Service Parameters
Brief Description Depending on business rules, and on any specific levels of commitment contained in the initiating service order or service design request, these processes may reserve specific service parameters linked to the initiating service order or service design request for a period of time **Extended Description** Not used for this process element **Explanatory** Depending on business rules, and on any specific levels of commitment contained in the initiating service order or service design request, **Mandatory** These processes may reserve specific service parameters linked to the initiating service order or service design request for a period of time **A** *As part of a service order or a future service order certain parameters/resources are linked to the service and require reservation for future use. UIM supports this process through its reservation functionality. All resources within UIM are reservation enabled. These reservations can be reserved in for short or long duration and these durations are configurable. Additionally, UIM includes a check redeemer rule set in its base rule sets cartridge to add redemption protection and capabilities. This rule set ensures that the service that requested the reservation is the service that redeems it.*

[**UIM_Concepts**] **Section: Understanding Resource Reservations, p. 69.**

"In UIM, you can reserve resources to prevent them from being used by other entities or processes. You can reserve resources if they are unassigned, not already reserved, and do not have a condition code that prevents assignments."

Optional

Not used for this process element

Interactions

Not used for this process element

Table 4.23 - Level 4: 1.1.2.2.2.3 Release Service Parameter

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.2.3 Release Service Parameter

Brief Description

Release the reservation when the time period has expired.

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

Release the reservation when the time period has expired. A

As reservations are created reserved resources become unavailable in UIM as desired. Over time reservations can exist for service orders that are no longer valid. In some cases a service provider may want to configure a time that reservations will expire. UIM supports this required out of the box and in an automated fashion. The behavior of reservation timers/expiration is a configurable item. This configuration is managed in the timers.properties file located in the UIM_Home/config/timers.properties *folder.*

[UIM_Concepts] Section: Understanding Resource Reservations, p. 69.

"You can reserve resources for a particular project, user, or service specification. Reservations can be designated as long-term (30 days by default) or short-term (10 minutes by default). If the reservation is not redeemed by the expiry date, the resource is released back into inventory."

[UIM_DevGuide] Chapter 8: Extending UIM Through Rulesets, p. 123.

Optional

Not used for this process element

Interactions

Not used for this process element

Table 4.24 - Level 4: 1.1.2.2.2.4 Allocate Service Parameters

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.2.4 Allocate Service Parameters

Brief Description

Where the Allocate Specific Service Parameters to Services processes are requested by a service order issued in response to a confirmed customer order, this process is responsible for allocating the specific service parameters required to satisfy the initiating service order. Any previously reserved specific service parameters are marked as allocated.

Extended Description

Not used for this process element

Explanatory

Where the Allocate Specific Service Parameters to Services processes are requested by a service order issued in response to a confirmed customer order,

Mandatory

This process is responsible for allocating the specific service parameters required to satisfy the initiating service order. Any previously reserved specific service parameters are marked as allocated.
A

This process is managed by the Service Configuration entity in UIM. As part of design and assign, a Business Interaction is created by the service fulfillment web service (Capture Interaction) to manage the service configuration. When the service configuration is created resources are assigned or referenced. Assignments are intended for resources that involve consumption models such as ports on a card and reference is used for entities that are used by multiple services such as voicemail servers, QoS, etc… During the resource assignment process reservations can be redeemed for specific resources in support of a service.

[UIM_Concepts] Section: Understanding Resource Reservations, p. 70.

"In UIM, you redeem a reserved resource when you assign the resource to a configuration item using a service, logical device, network, or site configuration"

[UIM_DevGuide] Chapter 8: Extending UIM Through Rulesets, p. 123.

Optional

Not used for this process element

Interactions

Not used for this process element

4.2.2.3 *Level 3: 1.1.2.2.3 - Track & Manage Service Provisioning*

Table 4.25 - Level 4: 1.1.2.2.3.1 Assign Service Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.3.1 Assign Service Provisioning Activity

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Schedule, assign and coordinate service provisioning related activities.</mark> **A**

The RSDOD solution is capable of assuming the role of service order management, which is responsible for service provisioning related activities.

[OSM_Concepts] Chapter 1, Section: About Central Order Management and Service Order Management, p1-6.

OSM service order management can orchestrate and manage the fulfillment of the services and resources for the order. It typically works in conjunction with an inventory system to track and allocate resources (for example, for design-and-assign/de-assign) and an activation system to configure the network devices and applications. The service order management role is sometimes called provisioning or local fulfillment.

The orchestration capability are capable of generating an orchestration plan, which realizes assigning and coordinating appropriate service provisioning activities to the appropriate target activation system(s), with the appropriate dependencies among such activities.

[OSM_Concepts] Chapter 4: Understanding Orchestration, first paragraph, p65.

It also has scheduling capabilities that can be based on the incoming requested delivery date in the order.

[OSM_Concepts] Chapter 6, Section: How OSM Determines the Order Completion Date, p183.

Optional

Not used for this process element.

Interactions

Not used for this process element

Table 4.26 - Level 4: 1.1.2.2.3.2 Track Service Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.3.2 Track Service Provisioning Activity

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Undertake necessary tracking of the execution process. Monitor the jeopardy status of service orders, and escalating service orders as necessary.</mark> **AM**

Users can track the execution process of service provisioning activity using Order Management UI. The progress of these activities in the order is shown in the Order Components panel of the Summary tab. As well, any order activities are shown in Activity tab, such as order amendments, state changes, notifications, and data changes.

[OSM_OMWebClient] Chapter 3, Section: Viewing Summary Information, p33.

[OSM_OMWebClient] Chapter 3, Section: Viewing Order Activity, p50.

The RSDOD solution can be specified with a jeopardy condition, and when met, can trigger a jeopardy notification. The jeopardy notification can be a notification in the Task Web UI, an email, or trigger a plug-in to notify an external system. Such plug-in can also be used to realize any escalation mechanism as necessary.

[OSM_Concepts] Chapter 10, Section: About Jeopardy Notifications, p297.

1.   "Jeopardy notifications can be defined for an order or for a task. Many of the jeopardy properties are the same for orders and tasks; for example, you can specify the roles to notify and the rule to trigger the notification."

Optional

Not used for this process element.

Interactions

Not used for this process element

Table 4.27 - Level 4: 1.1.2.2.3.3 Manage Service Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.3.3 Manage Service Provisioning Activity

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

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

Generating the respective resource order creation request(s) to Issue Resource Orders based on specific service orders; **A**

The RSDOD solution can invoke the CreateOrder() web-service API to issue Resource Orders based on the service order.

The OSS Mobile Reference Implementation demonstrates the generation of technical order – which is equivalent to resource order – via the use of "Calculate Delivery Plan" orchestration function.

[OSS_Guidelines] Figure 6, p17.

"The CalculateDeliveryPlan activity submits a technical order to OSM SOM for execution as a child of the service order. This extra degree of complexity is necessary to trigger another orchestration plan to be generated and executed based on the technical actions that result from the design and assign sub-process. The configuration information that results from design and assign then drives the implementation activities that follow."

Escalating status of service orders in accordance with local policy; Undertaking necessary tracking of the execution process; **AM**

OSM has jeopardy management capabilities which can send automatic notifications for escalating attention. Execution process can be manually monitored in Order Management UI.

[OSM_Concepts] Chapter 10, Section: About Jeopardy Notifications, p297.

[OSM_OMWebClient] Chapter 3, Section: Viewing Summary Information, p33.

[OSM_OMWebClient] Chapter 3, Section: Viewing Order Activity, p50.

Adding additional information to an existing service order;

Modifying information in an existing service order;· **AM**

Depending on the scenario, there are a few ways to add or modify information about an existing service order:

1. *Setup a manual task where the order is expected to be updated with information. The task becomes part of the expected execution process.*
   [OSM_TaskWebClient] Chapter 3, Section: Editing Orders, p28.

2. *Invoke UpdateOrder() web service API that will update the service order.*
   [OSM_DevGuide] Chapter 4, Section: UpdateOrder, p69.

3. *Submit an order amendment to reflect a change of the service order. While this is typically done by upstream system such as Central Order Management, the equivalent can be achieved with Task Web Client.*
   [OSM_Concepts] Chapter 7, Section: About Revising or Canceling Orders by Using the Task Web Client, p230.

Modifying the service order status; **A**

There are two status attributes in an order:

1. *Order State – represents the raw processing state of the order, such as In Progress, Completed, and Canceled. The transition of order states are triggered by both implicit order processing (e.g. order completes) and explicit actions – such as submitting an order revision, or canceling or suspending or aborting an order. The order state transitioning can be further restricted by declaring conditions in Order Life-Cycle Policy.*
   [OSM_Concepts] Chapter 6, Section: About Managing Order States and Transitions, p192.

2. *Fulfillment State – represents the progression of order fulfillment with respect to its orchestration plan. As service-related activities get completed in the order, Fulfillment States are computed to mark its progression, such as "designed" or "activated". Fulfillment states computation can be triggered (and thus be modified) by a change of value in external fulfillment state, which represents the downstream system's response of a service-related activity.*
   [OSM_Concepts] Chapter 4, Section: Modeling Fulfillment States, p117.

Canceling a service order when the initiating customer order is cancelled; **A**

CancelOrder web service API can be invoked to cancel the service order when customer order is cancelled. This pattern is supported out-of-the-box in O2A cartridges.

[OSM_DevGuide] Chapter 4, Section: CancelOrder, p72.

Indicating completion of a service order by modifying the service order status. **A**

The order state of the service order is automatically transitioned once its last activity is completed.

[OSM_Concepts] Chapter 6, Section: About the Completed Order State, p212.

Optional

Not used for this process element.

Interactions

Note that some specific service components may be delivered by suppliers/partners. In these cases the Track & Manage Service Provisioning process is responsible for initiating requests, through S/P Requisition Management for the delivery by the supplier/partner of the specific service components.

4.2.2.4   *Level 3: 1.1.2.2.4 - Implement, Configure & Activate Service*

Table 4.28 - Level 4: 1.1.2.2.4.1 Configure Service

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.4.1 Configure Service

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

Assess and plan the approach to be undertaken for configuration.

Re-use standard configuration and processes applicable to specific services.

Configure and reconfigure specific services, including customer premises equipment if part of the service provider offering. **A**

The orchestration feature of the RSDOD solution can decompose the service order. One of the key activities in the generated orchestration plan is the CalculateDeliveryPlan function, which is responsible for computing the technical order. The technical order contains technical actions, which represents the network/vendor-agnostic commands necessary to configure for specific services declared in the service order.

These technical actions may target PE or CPE as calculated by the CalculateDeliveryPlan function.

The OSS reference implementation in Mobile GSM demonstrates this repeatable orchestration pattern as a service-agnostic cartridge.

[OSS_Guidelines] Section: About OSM Service Order Orchestration, p15.

"[Calculate Delivery Plan]calculates the technical order based on the service actions that have been enriched with configuration information… The configuration information that results from design and assign then drives the implementation activities that follow."

Provide notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific service alarm event notifications. **A**

Notifications can be generated on the condition of an activity requiring maintenance.

[OSM_Concepts] Chapter 10, Section: About Using Order Rules in Notifications, p294.

==Update the information contained in the service inventory as to the configuration of specific services and their status.== **A**

The CalculateDeliveryPlan function generated off of service order includes updating UIM to transition service configurations to "issued", and upon activation completion, transitions to "complete".

This process connects process 1.1.2.1.1 Manage Service Inventory L3.

[OSS_Guidelines] Section: About OSM Service Order Orchestration, table 4, p16.

Optional

Not used for this process element.

Interactions

Provide notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific service alarm event notifications.

Table 4.29 - Level 4: 1.1.2.2.4.2 Implement Service

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.4.2 Implement Service

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

Assess and plan the approach to be undertaken for implementation.

Re-use standard implementation processes applicable to specific services.

Implement specific services, including customer premises equipment if part of the service provider offering. **A**

Once the technical order is generated using the CalculateDeliveryPlan function based on the designed-and-assigned service order, executing on the technical order as a child order realizes the implementation of the service. The technical order goes through orchestration as well, to generate a dynamic plan, tailored to the technical actions in the technical order, in order to implement the service.

The technical actions in the technical order may target PE or CPE as calculated by the CalculateDeliveryPlan function.

The OSS reference implementation in Mobile GSM demonstrates this orchestration pattern as a service-agnostic cartridge.

[OSS_Guidelines] Section: About OSM Service Order Orchestration, p15.

"The CalculateDeliveryPlan activity submits a technical order to OSM SOM for execution as a child of the service order. This extra degree of complexity is necessary to trigger another orchestration plan to be generated and executed based on the technical actions that result from the design and assign sub-process. The configuration information that results from design and assign then drives the implementation activities that follow."

Provide notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific service alarm event notifications. **A**

Notifications can be generated on the condition of an activity requiring maintenance.

[OSM_Concepts] Chapter 10, Section: About Using Order Rules in Notifications, pp294-295.

Optional

Not used for this process element.

Interactions

Provide notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific service alarm event notifications.

Table 4.30 - Level 4: 1.1.2.2.4.3 Activate Service

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.4.3 Activate Service

Extended Description

Not used for this process element.

Explanatory

At the successful conclusion of this activity, the status of the specific services will be changed from allocated to activated, which means they are in-use.

Mandatory

Assess and plan the approach to be undertaken for activation.

Re-used standard activation processes applicable to specific services. **A**

Executing on the technical order realizes the implementation of the service. The technical order goes through orchestration as well, to generate a dynamic plan, tailored to the technical actions in the technical order, in order to activate the service.

The technical actions in the technical order may target PE or CPE as calculated by the CalculateDeliveryPlan function.

The OSS reference implementation in Mobile GSM demonstrates this orchestration pattern as a service-agnostic cartridge.

[OSS_Guidelines] Section: About OSM Service Order Orchestration, p15.

"The CalculateDeliveryPlan activity submits a technical order to OSM SOM for execution as a child of the service order. This extra degree of complexity is necessary to trigger another orchestration plan to be generated and executed based on the technical actions that result from the design and assign sub-process. The configuration information that results from design and assign then drives the implementation activities that follow."

Specific services are specified as Service Actions in the Technical Order, where the appropriate Atomic actions are invoked based on such Service Actions. Atomic actions can be mapped to invoke the network vendor-specific and software load-specific network commands to correctly realize the activation process.

[OSS_Guidelines] Section: ASAP Service Activation, Figure 10, p25.

Provide notifications as required if the activation activity requires a planned outage or is likely to

<mark>initiate false specific service alarm event notifications.</mark> **A**

Notifications can be generated on the condition of an activity requiring maintenance.

[OSM_Concepts] Chapter 10, Section: About Using Order Rules in Notifications, pp294-295.

Optional

Not used for this process element.

Interactions

Provide notifications as required if the activation activity requires a planned outage or is likely to initiate false specific service alarm event notifications.

4.2.2.5 *Level 3: 1.1.2.2.5 - Test Service End-to-End [Not assessed]*

4.2.2.6 *Level 3: 1.1.2.2.7 - Issue Service Orders*

Table 4.31 - Level 4: 1.1.2.2.7.1 Assess Service Request

LEVEL 4 PROCESS MAPPING DETAILS 1.1.2.2.7.1 Assess Service Request

Extended Description
 	
Not used for this process element.
 	
Explanatory
 	
Not used for this process element.
 	
Mandatory
 	
==This process assesses the information contained in the customer order, through a service order request, relating to the purchased product offering, initiating service process or supplier/partner initiated request, to determine the associated service orders that need to be issued== **A**
 	
With Orchestration feature at Central Order Management, the order items in the customer order are decomposed into the appropriate level of granularity for activities, including the issuance of service order(s). That is, by configuring granularity rules, it is possible to partition the order items in the customer order by service or service bundle (e.g. break down a triple-play bundle into 3 separate service orders) or remain as a wholly offer, when it comes to issuing service orders.
 	
The customer order can also perform a transformation based on the customer order to compute the required service order. The transformation shall be based on a product-to-service mapping configuration, which is a design-time Service development process (1.2.2.3.5).
 	
"As an example, an order might be processed as follows:
 	
   1   OSM in its central order management role receives a customer order for a broadband service. Included in the order are requirements for billing, shipping, and provisioning.
 	
   2   OSM generates an orchestration plan, which runs the various fulfillment processes needed to fulfill the order.
 	
   3   To provision the order, OSM uses an automated task to create a separate service order, which is sent to another instance of OSM functioning in the service order management role."
 	
[OSM_Concepts] Chapter 1, Section: About Central Order Management and Service Order Management, p18.
 	
Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.32 - Level 4: 1.1.2.2.7.2 Create Service Orders

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.7.2 Create Service Orders

Extended Description

Not used for this process element.

Explanatory

The service orders may be required to satisfy pertinent customer order information received, may arise as a result of requests for service provisioning to satisfy service problem recovery activities, may arise to alleviate service performance issues, or may arise as a result of information received from suppliers/partners in relations to specific services.

The issued service order may require a service feasibility assessment or a service design to be produced, may require new provisioning activities for specific services, may require a change to a previously issued service order, or may require deletion and/or recovery of previously delivered specific services.

Mandatory

Where, the initiating request or the purchased product offering has a standard set of associated service orders this process is responsible for issuing the service orders, and for creating a record of the relevant initiating request or customer order information and the associated service orders. **A**

Service Orders can be issued to the Service Order Management by Central Order Management.
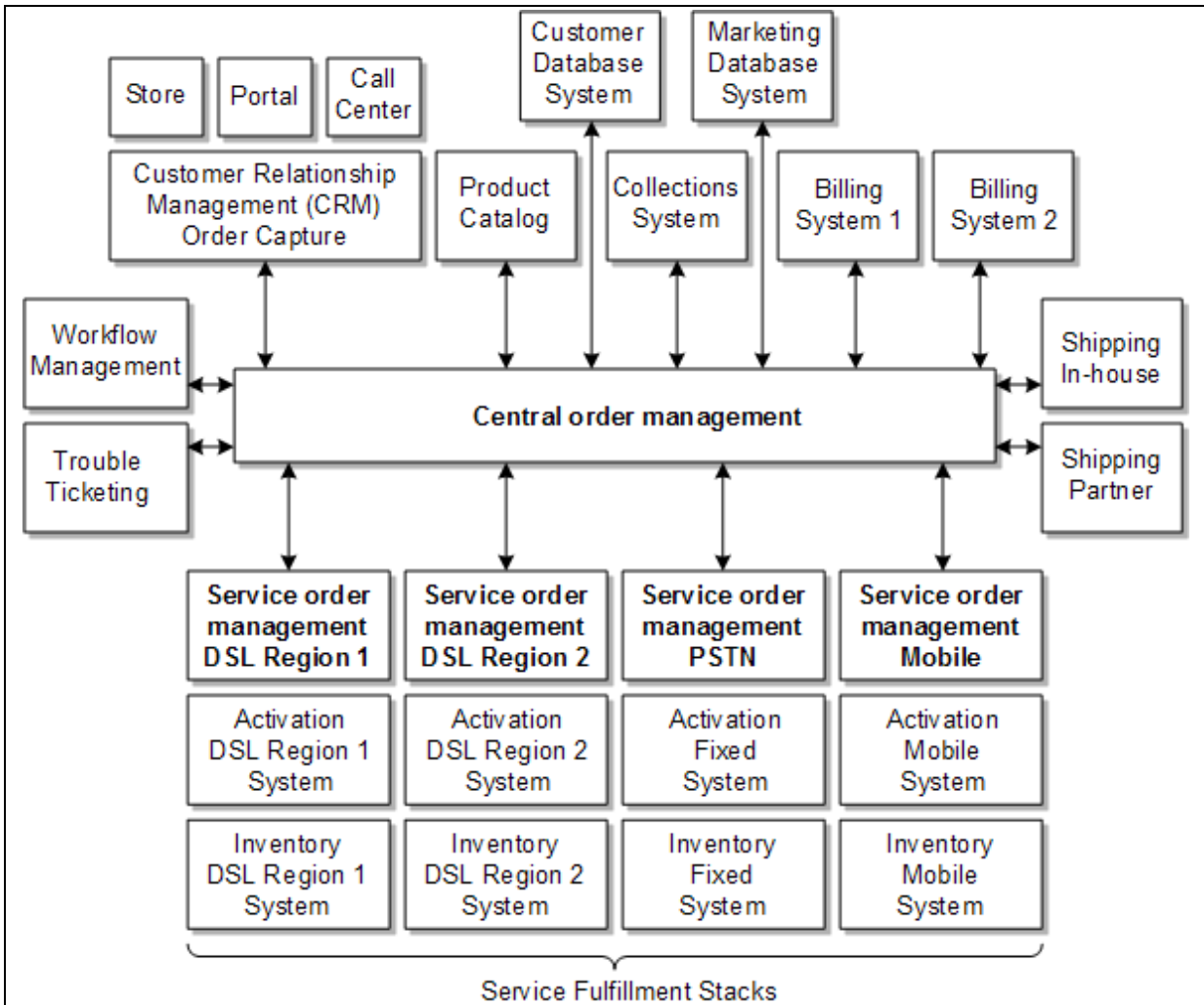
[OSM_Concepts] Chapter 1, Section: About Central Order Management and Service Order Management, p20.

When creating the service order(s), customer order information and any additional enriched data such as responses of initiating requests can be stored as the Order Template, which flexibly defines the metadata how the order data is kept as a persistent record.

[OSM_DevGuide] Chapter 4, Section: CreateOrder, p66.

"The data model defined in an order specification is called the order template. An order template is the part of an order specification that defines the order data that OSM uses to process and fulfill an order. For example, the order template defines the data required for order items as well as the data required in an order header."

[OSM_Concepts] Chapter 2, Section: About Modeling Order Data, pp28-29.
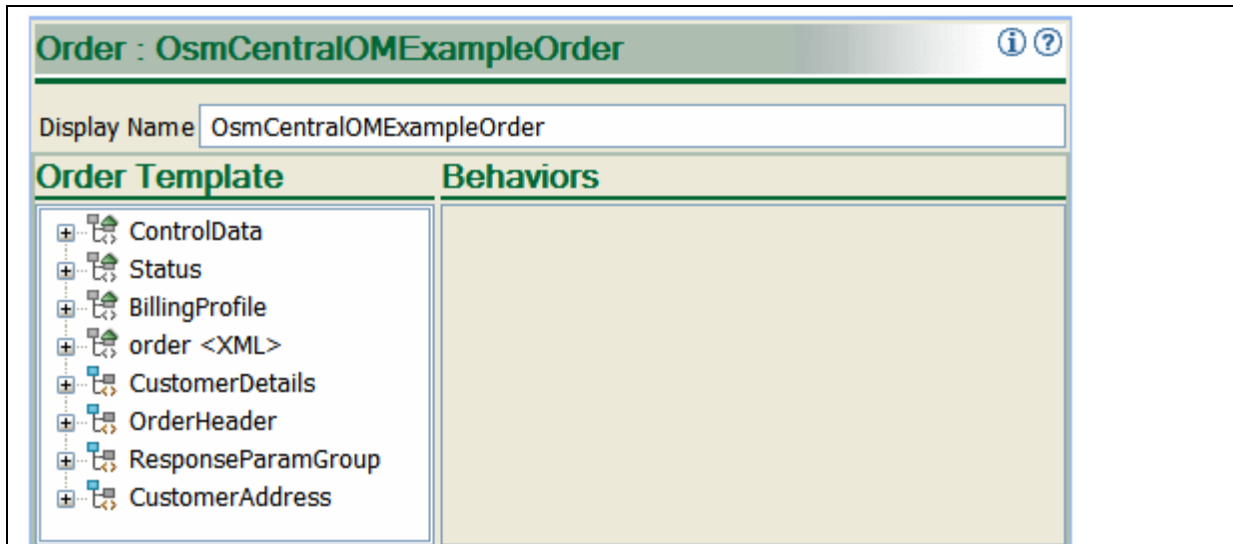
Where the initiating request or the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or service design has been previously created, this process is responsible for issuing the service orders, and for creating a record of the relevant initiating request or customer order information and the associated service orders. **A**

The orchestration feature of OSM is specifically geared to handle customer orders that constitute varying product offerings, which may previously have not been bundled together – such special orders are gracefully handled by orchestration, via decomposing the order line items into identifiable activities grouped into desired granularity of execution, while respecting dependencies among such activities in predecessors-successor relationship.

[OSM_Concepts] Chapter 4: Understanding Orchestration, pp65-76.

"A single customer order typically includes multiple order line items that request multiple products and fulfillment actions. To process the order, some order line items need to be fulfilled before others; for example, you cannot configure a call-waiting service until the base Telco service is provisioned. There are also multiple external systems that OSM must interact with. OSM uses orchestration to handle all of the fulfillment actions efficiently, taking into consideration all of the dependencies between the actions.

To manage orchestration, OSM creates a unique orchestration plan for each customer order. The orchestration plan specifies the fulfillment functions required to fulfill the order, manages the sequence of those functions, and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item of the customer order and identifies the processes and tasks to fulfill them."

The same Order Template mechanism as described above is responsible for persisting a record of any relevant information regarding the order.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.33 - Level 4: 1.1.2.2.7.3 Mark Service Order for Special Handling

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.7.3 Mark Service Order for Special Handling

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Where the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or specific service design has not been previously created, this process marks the issued service order as requiring special handling,</mark> **AM**

OSM is capable of specially marking a service order to be issued, based on some unusual requirements identifiable based on the customer order, such as feasibility assessment not found.

For example, the marking can be at the order header of the service order issued.

[OSM_DevGuide] Chapter 4, Section: CreateOrder, p66.

Orders of such special handling can be configured to be processed as a manual task or as an automated task.

[OSM_Concepts] Chapter 5: Section: About Tasks, p154.

"There are two types of tasks: automated and manual.

■Automated tasks require no manual intervention. Automated tasks are implemented using automation plug-ins. Automated tasks are used to handle internal interactions with external fulfillment system, such as billing systems, shipping systems, activation systems, and other fulfillment systems. OSM processes typically include more automated tasks than manual tasks.

■Manual tasks must be run from the Task Web client. These tasks involve manually entering or reviewing information. Manual tasks typically include tasks that require decision-making, when there are multiple choices for how to proceed with order processing. Fallout management typically uses manual tasks."

Optional

Not used for this process element.

Interactions

and passes management for further processing to the Track & Manage Service Provisioning process.

4.2.2.7   *Level 3: 1.1.2.2.8 - Report Service Provisioning*

Table 4.34 - Level 4: 1.1.2.2.8.1 Monitor Service Order Status

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.8.1 Monitor Service Order Status

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>responsible for continuously monitoring the status of service orders; record, analyze and assess the service order status changes</mark> **AM**

As service order progresses, the constant tracking of the order status is facilitated by the Fulfillment State Management component in OSM. The message responses in service fulfillment activities are gathered as "fulfillment states", to represent the status of each order-item associated with the fulfillment activity. These fulfillment states are normalized and composed, via rules, to compute the representative "composite fulfillment state" for each order item across fulfillment activities. An order-level composite fulfillment state is similarly computed, to represent the overall order status.

These statuses are computed instantaneously as fulfillment response or status notification messages arrive in OSM. They can be shown in the Order Management web UI.

Below is a pictorial example in **[OSM_Concepts] Chapter 4, Section: Modeling Fulfillment States, p117.**

OSM Orchestration Order ⑦

Composite Fulfillment State=Part_Success

OrderItem_VoIP: ⑤
Composite Fulfillment State=Completed

OrderItem_Mobile: ⑥
Composite Fulfillment State=Failed

OrderComponent_Billing: ②
External Fulfillment State=OK
   OrderItem_VoIP:
      Mapped Fulfillment State=Complete
   OrderItem_Mobile:
      Mapped Fulfillment State=Complete

OrderComponent_Activation: ④
External Fulfillment State=MOBILE_FAIL
   OrderItem_VoIP:
      Mapped Fulfillment State=Complete
   OrderItem_Mobile:
      Mapped Fulfillment State=Fail

CustomAutomation_Billing:
Transmits status directly from
billing system ①

CustomAutomation_Activation: ③
Uses custom code to translate the actual
response from the activation system.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.35 - Level 4: 1.1.2.2.8.2 Distribute Service Order Notification

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.8.2 Distribute Service Order Notification

Extended Description

Not used for this process element.

Explanatory

Notifications are used to notify the owner of the current status of the order and also distributed to the other parties who require it.

Mandatory

<mark>Provide notifications of any changes in the status of service orders.</mark> **A**

Notification events can be generated by fulfillment state changes at either the order item level or the overall order level. These notifications may be to operational personnel, such as in the form of emailing to a workgroup. Thus, notification recipients are determined by the configuration of workgroup authorization. Notifications on fulfillment state changes can also be sent to provide order status visibility to external northbound systems such as Central Order Management.

[OSM_Concepts] Chapter 10: About Notifications, p293.

Optional

Not used for this process element.

Interactions

Notification lists are managed and maintained by the Enable Service Configuration & Activation processes.

Table 4.36 - Level 4: 1.1.2.2.8.3 Distribute Service Provisioning Reports

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.2.8.3 Distribute Service Provisioning Reports

Extended Description

Not used for this process element.

Explanatory

These specialized summaries could be specific reports required by specific audiences.

Mandatory

<mark>Provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Service Configuration & Activation process.</mark> **AM**

Management reports can be generated via the OSM Reporting Interface on Orders and on Notifications, with a view mnemonic based on fulfillment state in the orders.

[**OSM_Reports**] **pp 1-2.**

"The Orders report displays the following data:
- *Order ID*
- *Reference number*
- *Order type description and mnemonic*
- *Order source description and mnemonic*
- *Process description and mnemonic*
This is the current process of an order. (This data is empty for completed orders.)
- *Process status description and mnemonic (last process status)*
- *Order creation date & time*
- *Order start date & time*
- *Expected duration of the order in days*
- *Actual duration of the order in days*
- *Expected order completion date*
- *Completion date of the order*
This data is empty for pending orders
- *Namespace description and mnemonic*
- *Version*
- *Order-specific data (specified by a view)"*

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.2.2.8 *Level 3: 1.1.2.2.9 - Close Service Order*

Table 4.37 - Level 4: 1.1.2.2.9 Close Service Order

LEVEL 3 PROCESS MAPPING DETAILS
1.1.2.2.9 Close Service Order

Extended Description

The objective of the Close Service Order processes is to close a service order when the service provisioning activities have been completed. **A**

These processes monitor the status of all open service orders, and recognize that a service order is ready to be closed when the status is changed to complete.

In OSM Order Lifecycle Policy, an order is transitioned to "completed" order state when all processing tasks are complete. This is a final state, and thus the order is considered "closed".

[OSM_Concepts] Chapter 6, Section: About the Completed Order State, p212.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.2.2.9 *Level 3: 1.1.2.2.10 - Recover Service [Not assessed]*

4.2.2.10 *Supporting Evidence References (Works Cited)*

[OSM_Concepts]　　　Oracle Communications Order and Service Management Concepts Release 7.2.2.

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

[OSM_OMWebClient]　Oracle Communications Order and Service Management Order Management Web Client User's Guide Release 7.2.2.

This document provides information about using the Oracle Order and Service Management (OSM) Order Management Web client.

[OSM_TaskWebClient]　Oracle Communications Order and Service Management Task Web Client User's Guide Release 7.2.2.

This guide describes how to use the Oracle Communications Order and Service Management (OSM) Task Web client to manage orders.

[OSM_DevGuide]　　　Oracle Communications Order and Service Management Developer's Guide Release 7.2.2

This document provides information about the customizable areas of Oracle Communications Order and Service Management (OSM) such as Web Services, Automation etc.

[OSM_Reports]　　　Oracle Communications Order and Service Management Reporting Interface Guide Release 7.2.2

This guide describes how to install and use Oracle Communications Order and Service Management (OSM) Reporting Interface to generate reports from order data.

[OSS_Guidelines]　　　Guidelines and Best Practices OSS Solution Development, Release 7.2.2

Note: This document is available to download by support paying Customers from My Oracle Support.

[UIM_Concepts]　　　Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

[UIM_DevGuide]   Oracle Communications Unified Inventory Management Developers Guide 7.2.2.

This guide explains how to extend Oracle Communications Unified Inventory Management (UIM) through standard Java practices using Oracle Communications Design Studio, which is an Eclipse-based integrated development environment. This guide includes references to both applications, and often directs the reader to see the Design Studio Help and the UIM Help for instructions on how to perform specific tasks.

4.2.2.11 *Level 2: 1.1.2.2 - Service Configuration & Activation –Scores*

Table 4.38 - Level 2: 1.1.2.2 - Service Configuration & Activation –Scores

Level 3 Process	Level 4 Process	L4/L3 Process Score
Level 2: 1.1.2.2 - Service Configuration & Activation [7/9]		
1.1.2.2.1 - Design Solution		**5**
	1.1.2.2.1.1 - Develop Overall Service Design	100%
	1.1.2.2.1.2 - Develop Service Implementation Plan	100%
	1.1.2.2.1.3 - Develop Detailed Service Design	100%
1.1.2.2.2 - Allocate Specific Service Parameters to Services		**5**
	1.1.2.2.2.1 - Determine Service Parameter Availability	100%
	1.1.2.2.2.2 - Reserve Service Parameters	100%
	1.1.2.2.2.3 - Release Service Parameter	100%
	1.1.2.2.2.4 - Allocate Service Parameters	100%
1.1.2.2.3 - Track & Manage Service Provisioning		**5**
	1.1.2.2.3.1 - Assign Service Provisioning Activity	100%
	1.1.2.2.3.2 - Track Service Provisioning Activity	100%
	1.1.2.2.3.3 - Manage Service Provisioning Activity	100%
1.1.2.2.4 - Implement, Configure & Activate Service		**5**
	1.1.2.2.4.1 - Configure Service	100%
	1.1.2.2.4.2 - Implement Service	100%
	1.1.2.2.4.3 - Activate Service	100%
1.1.2.2.5 - Test Service End-to-End		**0**
1.1.2.2.7 - Issue Service Orders		**5**
	1.1.2.2.7.1 - Assess Service Request	100%
	1.1.2.2.7.2 - Create Service Orders	100%
	1.1.2.2.7.3 - Mark Service Order for Special Handling	100%
1.1.2.2.8 - Report Service Provisioning		**5**
	1.1.2.2.8.1 - Monitor Service Order Status	100%
	1.1.2.2.8.2 - Distribute Service Order Notification	100%
	1.1.2.2.8.3 - Distribute Service Provisioning Reports	100%
1.1.2.2.9 - Close Service Order		**5**
1.1.2.2.10 - Recover Service		**0**

4.2.3   Level 2: 1.1.2.3 - Service Problem Management

4.2.3.1   *Level 3: 1.1.2.3.1 - Create Service Trouble Report*

Table 4.39 - Level 4: 1.1.2.3.1.1 Generate Service Problem

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.3.1.1 Generate Service Problem

Brief Description

This process creates a new Service Trouble report. **A**

Extended Description

Not used for this process element

Explanatory

Not used for this process element

Mandatory

This process creates a new Service Trouble report. **A**

The OSM O2A cartridge is capable of creating trouble tickets in Siebel CRM, via AIA for Communications. This includes OSM in the role of Service Order Management, where upon service fallout a service trouble ticket can be created.

[OSM_O2A_GUIDE] Chapter 1, Section: Order-to-Activate Business Process Overview.

"OSM detects, reports, and resolves order fulfillment fallout incidents such as system, validation, and fulfillment errors. The Oracle approach creates trouble tickets in Siebel CRM to take advantage of the rich notification, reporting, and management capabilities of Siebel CRM."

[OSM_O2A_GUIDE] Chapter 3: Order-to-Activate Cartridge Contents.

- Generate Trouble Ticket Requests **[OSM_O2A_GUIDE] Tables 3-2 to 3-23 Search "Trouble", pp38-55.**
- Provides services related to message fallout & trouble ticket tracking **[OSM_O2A_GUIDE] Table 3-5, p41.**
- Raise trouble tickets for various system & order failures **[OSM_O2A_GUIDE] Table 3-11, pp47-48.**
- Sends a request to the trouble ticketing system to close tickets **[OSM_O2A_GUIDE] Tables 3-11, 3-13, 3-19, pp47-52.**

Optional

Not used for this process element

Interactions

Not used for this process element.

Table 4.40 - Level 4: 1.1.2.3.1.2 Convert Report To Service Problem Format

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.3.1.2 Convert Report To Service Problem Format

Brief Description

==If the service trouble report is created as a result of a notification or request from processes other than the Survey & Analyze Service Problem processes, this process is responsible for converting the received information into a form suitable for the Service Problem Management processes, and for requested additional information if required.== **A**

The OSM O2A cartridge creates the trouble ticket in the format defined in the AIA Trouble Ticket enterprise-business-message (EBM) format. The data of the fallout problem such as the offending order, the activity that the fallout occurs, and fault reason is reported accordingly.

[OSM_O2A_GUIDE] Chapter 3, Section: OracleComms_OSM_O2A_RecognitionFallout.

"The OracleComms_OSM_O2A_RecognitionFallout cartridge is a productized cartridge that generates AIA trouble ticket creation request messages"

"- ORPFalloutProcessErrorTask: Task that handles error when creating a fault message in service order management or when creating a fulfillment request for the trouble ticketing system.
- ORPFalloutProcess: Fallout process that creates a trouble ticket for AIA."
[OSM_O2A_GUIDE] Chapter 4, Section: Considerations When Integrating with AIA, Table 4-44.

"CreateTroubleTicket request (oracle/communications/ordermanagement/CreateTroubleTicketRequestQueue) - OSM central order management to CRM ABCS"

Extended Description

Not used for this process element

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.41 - Level 4: 1.1.2.3.1.3 Estimate Time For Restoring Service

LEVEL 4 PROCESS MAPPING DETAILS
1.1.2.3.1.3 Estimate Time For Restoring Service

Brief Description

This process estimates the time to restore service which is included in the new Service Trouble report so that other processes can gain access to this information. **AM**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process estimates the time to restore service which is included in the new Service Trouble report so that other processes can gain access to this information. **AM**

As a design-time process, the RSDOD solution using OSM O2A cartridges can be extended to provide a time estimation required for servicing the Trouble Ticket, when it is generated. This time estimation can be extended as a manual activity, or calculated automatically.

Such extension is realized by adding manual or automated task to the service fallout process.

[OSM_Concepts] Chapter 5, Section: Understanding Processes.

"A process is a sequence of tasks and sub processes that run consecutively or concurrently to fulfill all or part of an order. Any number of processes can be defined, consisting of any number or combination of manual and automated tasks."

[OSM_Concepts] Chapter 5, Section: About Modeling Processes.

Furthermore, OSM can calculate delivery dates for orders expected to execute immediately or on a future date. This information, whether manually updated in a manual task or auto-generated can be passed to the Service Trouble Report.

[OSM_Concepts] Chapter 6, Section: How OSM Determines the Order Completion Date.

Tasks designed for restoring a service can be auto-configured with a default minimum duration or updated manually.

[OSM_Concepts] Chapter 6, Section: Configuring the Minimum Processing Duration for an Order.

Optional

Not used for this process element.

Interactions

Not used for this process element

4.2.3.2   *Level 3: 1.1.2.3.2 - Diagnose Service Problem   [Not assessed]*

4.2.3.3   *Level 3: 1.1.2.3.3 - Correct & Resolve Service Problem [Not assessed]*

4.2.3.4   *Level 3: 1.1.2.3.4 - Track & Manage Service Problem   [Not assessed]*

4.2.3.5   *Level 3: 1.1.2.3.5 - Report Service Problem [Not assessed]*

4.2.3.6   *Level 3: 1.1.2.3.6 - Close Service Trouble Report [Not assessed]*

4.2.3.7   *Level 3: 1.1.2.3.7 - Survey & Analyze Service Problem [Not assessed]*

4.2.3.8 *Supporting Evidence References (Works Cited)*

[**OSM_O2A_Guide**]   Oracle Communications Order and Service Management Cartridge Guide for Oracle Application Integration Architecture Release 7.2

Oracle Communications Order and Service Management (OSM) delivers pre-built cartridges supporting the Order-to-Activate business process to be used with the Oracle Communications Order to Cash Integration Pack for Oracle Communications Order and Service Management. This guide provides information about the OSM Order-to-Activate cartridges for the Oracle Communications Order to Cash Integration Pack for Oracle Communications Order and Service Management. It explains how to install and deploy the cartridges and provides detailed information and best practices on how to extend them for your own implementation.

[**OSM_Concepts**]   Oracle Communications Order and Service Management Concepts Release 7.2.2

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

4.2.3.9 *Level 2: 1.1.2.3 - Service Problem Management -Scores*

Table 4.42 Level 2: 1.1.2.3 - Service Problem Management -Scores

Level 3 Process	Level 4 Process	L4/L3 Process Score
Level 2: 1.1.2.3 - Service Problem Management		
1.1.2.3.1 - Create Service Trouble Report		
	1.1.2.3.1.1 - Generate Service Problem	
	1.1.2.3.1.2 - Convert Report To Service Problem Format	
	1.1.2.3.1.3 - Estimate Time For Restoring Service	
1.1.2.3.2 - Diagnose Service Problem		0
1.1.2.3.3 - Correct & Resolve Service Problem		0
1.1.2.3.4 - Track & Manage Service Problem		0
1.1.2.3.5 - Report Service Problem		0
1.1.2.3.6 - Close Service Trouble Report		0
1.1.2.3.7 - Survey & Analyze Service Problem		0

4.3   Level 1: 1.1.3 - Resource Management & Operations

4.3.1   Level 2: 1.1.3.1 - RM&O Support & Readiness

4.3.1.1   *Level 3: 1.1.3.1.1 - Enable Resource Provisioning*

Table 4.43 - Level 3: 1.1.3.1.1 Enable Resource Provisioning

LEVEL 3 PROCESS MAPPING DETAILS
1.1.3.1.1 Enable Resource Provisioning

Brief Description

Planning and deployment of new and/or modified resource infrastructure to ensure availability of sufficient resource infrastructure to support the Resource Provisioning processes, and monitoring, managing and reporting on the capability of the Resource Provisioning processes.

Extended Description

The responsibilities of the Enable Resource Provisioning processes are twofold - planning and deployment of new and/or modified resource infrastructure to ensure availability of sufficient resource infrastructure to support the Resource Provisioning processes, and monitoring, managing and reporting on the capability of the Resource Provisioning processes.

The responsibilities of these processes include, but are not limited to:

· Forecasting at an operational level resource infrastructure volume requirements and run-out timeframes;

· Managing capacity planning associated with the deployment of new and/or modified resource infrastructure;

· Establishing and monitoring of organizational arrangements to support deployment and operation of new and/or modified resource infrastructure;

· Creating, deploying, modifying and/or upgrading of resource infrastructure deployment support tools (including Resource Inventory) and processes for new and/or modified resource infrastructure;

· Developing and promulgating resource infrastructure capacity deployment rules and controls;

· Authoring, reviewing and approving operational procedures developed by Resource Development & Management processes prior to resource infrastructure deployment;

· Testing and acceptance of new and/or modified resource infrastructure as part of the handover procedure from the Resource Development & Management processes to Operations;

· Detecting resource infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Resource Development & Management processes;

· Scheduling, managing, tracking and monitoring of the roll-out, in accordance with approved plans,

of the approved new and/or modified resource infrastructure; · Monitoring capacity utilization of deployed resource infrastructure to provide early detection of potential resource infrastructure shortfalls;

· Monitoring of, and reporting on, resource infrastructure and resource instance currency and version management;

· Reconfiguring and re-arranging under-utilized deployed resource infrastructure

;· Managing recovery and/or removal of obsolete or unviable resource infrastructure;
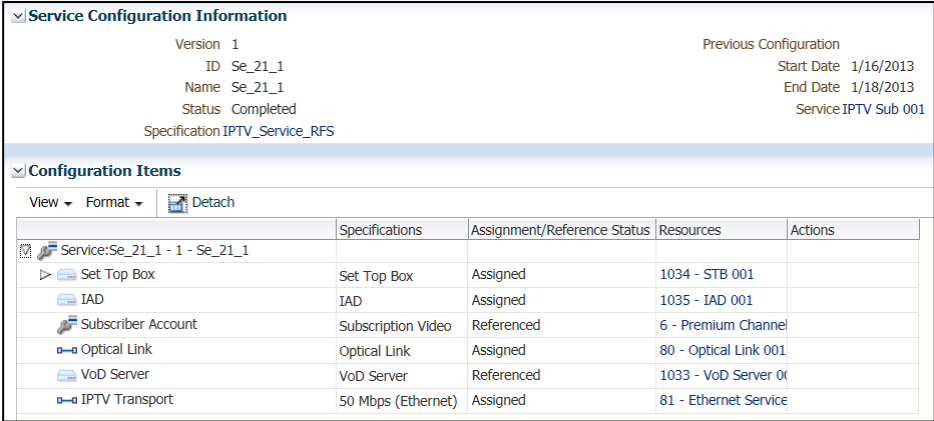
· Reporting on deployed resource infrastructure capacity;

· Tracking and monitoring of the Resource Provisioning Management processes and associated costs (including where resource infrastructure is deployed and managed by third parties), and reporting on the capability of the Resource Provisioning Management processes;

· Establishing and managing resource provisioning notification facilities and lists to support the Resource Provisioning notification and reporting processes; and

· Updating the Resource Inventory of any changes to the available resource infrastructure capacity.

Table 4.44 - Level 4: 1.1.3.1.1.1 Plan & Forecast Resource Infrastructure Requirements and Manage Capacity Planning

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.1 Plan & Forecast Resource Infrastructure Requirements and Manage Capacity Planning

Brief Description

Planning and deployment of new and/or modified resource infrastructure to ensure availability of sufficient resource infrastructure to support the Resource Provisioning processes, and monitoring, managing and reporting on the capability of the Resource Provisioning processes. **AM**

During the planning phase specifications are created in Design Studio to support new resources, and then they are deployed to UIM. In UIM, Business Interactions allow you to plan actions and then execute those actions later. Business Interactions are created for the planning and deployment of new resources. Once the resources have been fully deployed the Business Interaction can be completed and the new resources are available in live inventory. Once these resources are in live inventory they are available for provisioning processes managed by the RSDOD solution.

[**DS_Inventory_OH**] Section 2, p2-1.

[**UIM_Concepts**] Section 12, p12-1.

Extended Description

Forecasting at an operational level resource infrastructure volume requirements and run-out timeframes; **AM**

UIM does not directly provide forecasting tooling in the core application. However, it supports this process through its role as the resource inventory database. The data required for forecasting and trend analysis is contained in UIM. The volume requirements and time outs can be based on the data captured in the service configuration as illustrated in the graphic below. Reports can be written in Oracle Business Intelligence to support the forecasting process. Additionally, UIM is pre-integrated with Oracle's Network Intelligence application for advanced planning and forecasting activities.

[UIM_Concepts] Section 6, p6-3.

==Managing capacity planning associated with the deployment of new and/or modified resource infrastructure;== **AM**

UIM supports the capacity planning processes required by service providers through the use of resource entities such as equipment, logical devices, and connectivity. These entities are aligned with the Resource Usage Level 1 ABE. Connectivity is managed through the connectivity provided and the connectivity consumed. For example, when 100 Mbps connectivity is created a capacity provided of 100 Mbps is associated with the connectivity. A capacity percentage is also defined by the specification. In the case of a 100 Mbps connectivity with 100 percent consumption the maximum provided bandwidth would be 100 Mbps. After the first 10 Mbps connectivity is assigned to this connectivity there will only be 90 Mbps of bandwidth available for assignment. In UIM, devices also contain a notion of capacity. For example, a logical device with 3 STS-1 device interfaces only allow for 3 device interface assignments. Capacity definitions are managed through specifications with the exception of channelized connectivity which is part of the core application based on industry standards for TDM technologies.

[UIM_Concepts] Section 5, pp5-8 thru 5-14.

Explanatory

Not used for this process element.

Mandatory

Not used for this process element.

Optional

Not used for this process element.

Interactions

Not used for this process element

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.2 Establish, Manage and Develop Organization, Tools and Processes

Brief Description

<mark>Establishing, Creating, Managing, and developing organization, Tools and processes for operations of new/or modified resource infrastructure.</mark> **AM**

During the readiness phase, resources are created in an automated or manual fashion to support provisioning processes. The resources managed in UIM are activated by ASAP to support the resource provisioning process. UIM can also be integrated with Oracle Communications Network Integrity to discover and load new resources in UIM.

[**UIM_Concepts**] **Section 3.**

[**UIM_Concepts**] **Section 7-12.**

Extended Description

<mark>Establishing and monitoring of organizational arrangements to support deployment and operation of new and/or modified resource infrastructure;</mark> **AM**

UIM supports the establishing and monitoring of organizational arrangements to support deployment of resource infrastructure process through the use of party and role as they apply to resource entities. First, the Level 1 ABE Party is used to model the people or organizations that interact with resources. UIM is also aligned with the Entity/Entity Role Pattern included in the Information Framework. UIM uses roles with resource entities to define parts played by entities in inventory. For example, an entity based on Logical Device specification called Router could have a role of Customer Edge (CE) or Provider Edge (PE).

[**UIM_Concepts**] **Section 12, p12-20.**

<mark>Creating, deploying, modifying and/or upgrading of resource infrastructure deployment support tools (including Resource Inventory) and processes for new and/or modified resource infrastructure;</mark> **AM**

UIM supports the creating, deploying, modifying and/or upgrading resource activities. Creating, Deploying and modifying resources can be done manually through the user interface or in an automated manner using rule sets. Rulesets provide the ability to run custom code that extends UIM. These rule sets are applied to a specification or globally. Global rule sets are used in readiness activities to automate the loading of resource entities. In an automated environment business interactions are also used to manage the resource activities.

Additionally, there may be cases where a Network Planner wants to manually create resource entities as part of readiness activities but not have the resources in live inventory until a later date.

Business Interactions can be used in support of planning and readiness activities.

[**UIM_Concepts**] **Section 3, p 3-8, Section 12, p12-1.**

[**UIM_DevGuide**] **Section 8, pp8-3, 8-14 thru 8-22.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.46 - Level 4: 1.1.3.1.1.3 Develop and Implement Capacity and Operational Rules and Procedures

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.3 Develop and Implement Capacity and Operational Rules and Procedures

Brief Description

Developing and implementing the capacity deployment rules and administrating the infrastructure operational procedures. **AM**

Rule sets can be created in UIM based on capacity rules to trigger the creation of additional resources to support the resource provisioning processes. Reports can be created to assist in the capacity management process. Additionally, data attributes (characteristics) can be created to track data that supports operational procedures and processes prior to deployment.

[DS_Inventory_OH] Section 2.

[UIM_Concepts] Section 12.

Extended Description

Developing and promulgating resource infrastructure capacity deployment rules and controls; **AM**

UIM supports this process through the use of specifications and rule sets. First, specifications define capacity rules and how capacity is managed. Rulesets are used to add additional logic required in support of this process. Rulesets are triggered at the specification or globally to support deployment rules.

For example, a specification is used to define the deployment rules for a Router. This specification defines the number of device interfaces created when the resource is created at run time. The specification also defines the maximum number of device interfaces allowed in run time. Rulesets can then be created and associated to the specification. A rule set could be created to automatically create additional device interfaces when a certain threshold is crossed. For example, when the logical device is created 12 device interfaces could be created, then when there are only two device interfaces remaining the rule set would create an additional 12 device interfaces.

[UIM_Concepts] Section 3, p3-4.

[UIM_Concepts] Section 7, pp7-3 & 7-4.

AM

UIM supports the authoring, reviewing and approving procedures using Business Interactions. When resource infrastructure is deployed, these entities can be created in a Business Interaction. Once the infrastructure has been reviewed and approved the Business Interaction can be completed and become part of live inventory. This activity can be supported in an automated or manual fashion.

[**UIM_Concepts**] **Section 12, pp12-1 & 12-2.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.47 - Level 4: 1.1.3.1.1.4 Perform Acceptance Test and Address & Monitor the Change

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.4 Perform Acceptance Test and Address & Monitor the Change

Brief Description

Performing acceptance test during the hand over process of new and/or modified resource infrastructure. Also monitoring the new and/or modified infrastructure and addressing the operational limitations. AM

Business Interactions can be used to manage resources prior to the handover process. Once resources are accepted the Business Interaction can be completed making the resource available in live inventory and available to support resource provisioning processes. UIM can be integrated with Oracle Communications Network Integrity to discover resources not available in inventory as part of the handover procedure.

[UIM_Concepts] Section 3.

[UIM_Concepts] Section 7-12.

Extended Description

Testing and acceptance of new and/or modified resource infrastructure as part of the handover procedure from the Resource Development & Management processes to Operations; AM

As part of the testing and acceptance procedures resource specifications are created to support new resources in run time. Once specifications are created the entities can be created in run time.

UIM also supports the testing and acceptance procedures using Business Interactions. When resource infrastructure is deployed, these entities can be created in a Business Interaction. Once the infrastructure has tested and accepted the Business Interaction can be completed and become part of live inventory. This activity can be supported in an automated or manual fashion.

[UIM_Concepts] Section 3, p3-4.

Detecting resource infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Resource Development & Management processes; AM

Resource infrastructure operational limitations are managed through resource and service configuration specifications. At the service layer, the service configuration limits the technology options based on specifications that are defined by the modeler. As illustrated in the graphic, the IPTV transport only allows the user to assign 50 Mbps Ethernet Connectivity in the IPTV_Service_RFS specification. In a similar fashion, a logical device specification limits the types of device interfaces that can be added to a particular device based on its Logical Device specification.
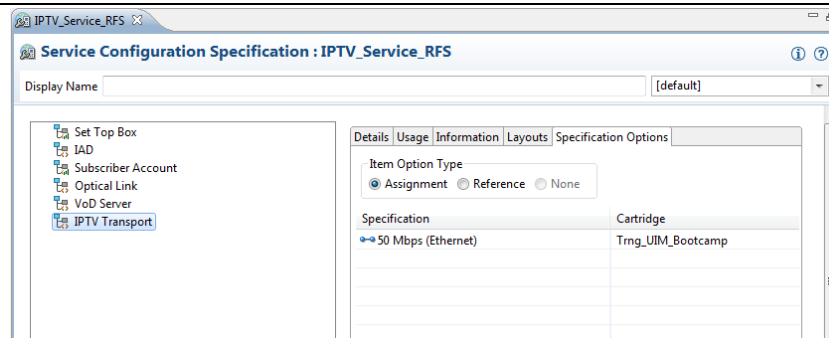
[UIM_Concepts] Section 3, p3-4.

[UIM_Concepts] Section 6, p6-2.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.48 - Level 4: 1.1.3.1.1.5 Track & Supervise the Rollout of new and/or Modified Infrastructure

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.5 Track & Supervise the Rollout of new and/or Modified Infrastructure

Brief Description

Supervising the rollout activities of new and/or modified resource infrastructure. **AM**

UIM supports the managing, tracking and rollout of new resources. This process is supported using data attribution on resources, status, and life cycles. Using configurations, resources can manage an approval process in support of the resource provisioning process. Business Interactions can also be used to plan multiple scenarios and complete the approved infrastructure.

[UIM_Concepts] **Section 3.**

Extended Description

Scheduling, managing, tracking and monitoring of the roll-out, in accordance with approved plans, of the approved new and/or modified resource infrastructure; **AM**

Same as Brief Description

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.49 - Level 4: 1.1.3.1.1.6 Monitor, Report and Release Mgt. of Resource Infrastructure and Capacity Utilization

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.6 Monitor, Report and Release Mgt. of Resource Infrastructure and Capacity Utilization

Brief Description

Monitoring and reporting the capacity utilization of existing infrastructure. **A**

Through the user interface a user can perform queries to determine resource status and capacity. Reports can also be generated to provide more advanced views capacity utilization.

[**UIM_Concepts**] **Section 3.**

Extended Description

• Monitoring capacity utilization of deployed resource infrastructure to provide early detection of potential resource infrastructure shortfalls; **A**

UIM supports the monitoring capacity utilization of deployed resource infrastructure process with the use of resource entities that are aligned with the Information Framework Level 1 ABEs and inventory status. For example, resources such as logical devices and connectivity contain utilization via the assignment status.

Monitoring of, and reporting on, resource infrastructure and resource instance currency and version management; **A**

Resource infrastructure and instance currency reporting is supported by UIM and its reporting engine, Oracle Business Intelligence. Several capacity and utilization reports are available out of the box. OBI also provides a mechanism to write custom reports.

Customer Service Resource Allocation

Customer Name A101

Service Name	Service Status	Current Service Configuration Version	Type of Resource	Resource ID	Resource Name	Item Label
VLAN Service 1	PENDING	1	CustNetAddr	OV1000/V0001	OV1000/V0001	VLAN ID
		1	CustNetAddr	OV1000/V0002	OV1000/V0002	VLAN ID
		1	DeviceInterface	CE1-1-1		CPE-VLAN ID/EVC Mapping
		1	DeviceInterface	CE1-1-2		CPE-VLAN ID/EVC Mapping
		1	DeviceInterface	CE2-1-1		CPE-VLAN ID/EVC Mapping
		1	LogicalDevice	CE1	CE1	CPE
		1	LogicalDevice	CE2	CE2	CPE
		1	Network	EVC Network 4	EVC Network 4	Add CE to VPN
		1	Network	ME Network 3	ME Network 3	VPN
		1	Pipe	EVC/A_Company/CE1/UPE1	EVC/A_Company/CE1/UPE1	EVC
		1	Pipe	EVC/A_Company/CE2/UPE2	EVC/A_Company/CE2/UPE2	EVC
		1	Pipe	FastEthernet/1/CE1/UPE1	FastEthernet/1/CE1/UPE1	Access Connection
		1	Pipe	FastEthernet/2/CE2/UPE2	FastEthernet/2/CE2/UPE2	Access Connection
		1	Pipe	STM1/11/SW1/SW2	STM1/11/SW1/SW2	LSP
		1	Pipe	STM1/12/SW1/SW3	STM1/12/SW1/SW3	LSP

Return - Modify - Refresh - Print - Download - Create Bookmark Link

[UIM_Concepts] Section 4, p4-4.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.50 - Level 4: 1.1.3.1.1.7 Optimize Existing Resource Infrastructure Utilization

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.7 Optimize Existing Resource Infrastructure Utilization

Brief Description

Optimizing the infrastructure capacity utilization. **AM**

UIM supports the Optimize Existing Resource Infrastructure Utilization process by automating resource assignment during the design and assign process. This process ensures that resources are utilized and infrastructure capacity is optimized.

[UIM_Concepts] **Section 3.**

[UIM_Concepts] **Section 7-12.**

Reconfiguring and re-arranging under-utilized deployed resource infrastructure **A**

UIM supports the optimization of existing resource infrastructure utilization process through its inventory assignment and consumption patterns for resources. It also automates efficient utilization of connectivity capacity through is use of automated design tools such as path analysis.

[UIM_Concepts] **Section 5, p5-14.**

[UIM_Concepts] **Section 9, p9-28.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.51 - Level 4: 1.1.3.1.1.8 Track, Monitor and Report Resource Provisioning

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.8 Track, Monitor and Report Resource Provisioning

Brief Description

Tracking and monitoring the resource provisioning processes and provide the reporting support. **A**

In the user interface, the service configuration provides a state (in progress, approve, issue and complete) and assignment to the resources required for provisioning. This configuration also used network targets used in activation. All design and assign activities included in the configuration are completed in an automated manner.

[**UIM_Concepts**] **Section 3.**

[**UIM_Concepts**] **Section 7-12.**

Extended Description

Tracking and monitoring of the Resource Provisioning Management processes and associated costs (including where resource infrastructure is deployed and managed by third parties), and reporting on the capability of the Resource Provisioning Management processes; **A**

UIM supports the tracking and monitoring of the resource provisioning management processes and associated cost with the use of characteristics as outlined in the Information Framework. Characteristics provide a means for storing specific items of information associated with a particular specification. For example, a pipe specification could be created for third party connectivity that includes characteristics to track monthly cost, contract terms, etc…. Reports can be written in Oracle Business Intelligence to report on cost for third party facilities.

[**UIM_Concepts**] **Section 3, pp3-8 & 3-9.**

Establishing and managing resource provisioning notification facilities and lists to support the Resource Provisioning notification and reporting processes; **A**

The details associated with managing resource provisioning are captured in the service specification. Oracle Business Intelligence can be used to write a report to support this process based on the data that is captured in various service configurations.

Customer Service Resource Allocation

Customer Name A101

Service Name	Service Status	Current Service Configuration Version	Type of Resource	Resource ID	Resource Name	Item Label
VLAN Service 1	PENDING	1	CustNetAddr	OV1000IV0001	OV1000IV0001	VLAN ID
		1	CustNetAddr	OV1000IV0002	OV1000IV0002	VLAN ID
		1	DeviceInterface	CE1-1-1		CPE-VLAN ID/EVC Mapping
		1	DeviceInterface	CE1-1-2		CPE-VLAN ID/EVC Mapping
		1	DeviceInterface	CE2-1-1		CPE-VLAN ID/EVC Mapping
		1	LogicalDevice	CE1	CE1	CPE
		1	LogicalDevice	CE2	CE2	CPE
		1	Network	EVC Network 4	EVC Network 4	Add CE to VPN
		1	Network	ME Network 3	ME Network 3	VPN
		1	Pipe	EVC/A_Company/CE1/UPE1	EVC/A_Company/CE1/UPE1	EVC
		1	Pipe	EVC/A_Company/CE2/UPE2	EVC/A_Company/CE2/UPE2	EVC
		1	Pipe	FastEthernet/1/CE1/UPE1	FastEthernet/1/CE1/UPE1	Access Connection
		1	Pipe	FastEthernet/2/CE2/UPE2	FastEthernet/2/CE2/UPE2	Access Connection
		1	Pipe	STM1/11/SW1/SW2	STM1/11/SW1/SW2	LSP
		1	Pipe	STM1/12/SW1/SW3	STM1/12/SW1/SW3	LSP

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[UIM_Concepts] Section 6, p6-2.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.52 - Level 4: 1.1.3.1.1.9 Update Inventory Record

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.1.9 Update Inventory Record

Brief Description

Updating the inventory record. **A**

When resources are assigned or un-assigned the resource entity is updated to reflect the change. These types of changes are managed using Business Interactions.

[**UIM_Concepts**] **Section 3.**

[**UIM_Concepts**] **Section 7-12.**

Extended Description

Updating the Resource Inventory of any changes to the available resource infrastructure capacity. **A**

UIM and OSM are integrated with the UIM service fulfillment web services that are included with UIM as part of the RSDOD solution. Resource inventory changes are managed with business interactions. The service fulfillment web services create and change business interactions as part of the design and assign process as part of service order orchestration.

[**UIM_Concepts**] **Section 12, p12-1.**

[**UIM_DevGuide**] **Section 9, pp9-5 thru 9-34.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.3.1.2 *Level 3: 1.1.3.1.2 - Enable Resource Performance Management [Not assessed]*

4.3.1.3 *Level 3: 1.1.3.1.3 - Support Resource Trouble Management [Not assessed]*

4.3.1.4 *Level 3: 1.1.3.1.4 - Enable Resource Data Collection & Distribution [Not assessed]*

4.3.1.5 *Level 3: 1.1.3.1.5 - Manage Resource Inventory*

Table 4.53 - Level 3: 1.1.3.1.5 Manage Resource Inventory

LEVEL 3 PROCESS MAPPING DETAILS 1.1.3.1.5 Manage Resource Inventory
Brief Description Establish, manage and administer the enterprise's resource inventory, as embodied in the Resource Inventory Database, and monitor and report on the usage and access to the resource inventory, and the quality of the data maintained in it. **Extended Description** The responsibilities of the Manage Resource Inventory processes are twofold - establish, manage and administer the enterprise's resource inventory, as embodied in the Resource Inventory Database, and monitor and report on the usage and access to the resource inventory, and the quality of the data maintained in it. The resource inventory maintains records of all resource infrastructure and resource instance configuration, version, and status details. It also records test and performance results and any other resource related- information, required to support RM&O and other processes. The resource inventory is also responsible for maintaining the association between service instances and resource instances, created as a result of the Resource Provisioning Management processes. Responsibilities of these processes include, but are not limited to: · Identifying the inventory-relevant information requirements to be captured for resource infrastructure and resource instances; · Identifying, establishing and maintaining resource inventory repository facilities; · Establishing and managing the resource inventory management and information capture processes; · Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download resource data to and from the resource inventory; · Ensuring the resource inventory repository accurately captures and records all identified resource

infrastructure and resource instance details, through use of automated or manual audits;

· Tracking and monitoring of the usage of, and access to, the resource inventory repository and associated costs, and reporting on the findings; and

· Identifying any technical driven shortcomings of the resource inventory repository, and providing input to Resource Development & Management processes to rectify these issues.

Table 4.54 - Level 4: 1.1.3.1.5.1 Manage Resource Inventory Database and Processes

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.5.1 Manage Resource Inventory Database and Processes

Brief Description

Establishing, managing and administering the enterprise's resource inventory, **AM**

Resource specifications are created in Design Studio and deployed into UIM where they are available for resource creation. Resource entities can include additional data attribution by adding characteristics (data elements) to the resource specifications.

[**UIM_Concepts**] **Section 3, pp7-12.**

[**UIM_DevGuide**] **Section 2, pp8-9.**

[**DS_Inventory_OH**] **Section 2.**

Extended Description

· Identifying the inventory-relevant information requirements to be captured for resource infrastructure and resource instances; **AM**

In support of identifying inventory relevant information requirements specifications are created in design time (Design Studio) and deployed to run time (UIM). These specifications include characteristics to track relevant information as custom data attribution. Entities are then created in run time based on these specifications.

[**UIM_Concepts**] **Section 3, p3-8.**

Identifying, establishing and maintaining resource inventory repository facilities; **AM**

UIM is the repository facility for all resource and service inventory entities used to support service fulfillment. UIM is aligned with the Information Framework and most entities can be traced to Level 1 ABEs.

[**UIM_Concepts**] **Section 1, p1-1.**

Establishing and managing the resource inventory management and information capture processes; **AM**

UIM and OSM are integrated with the UIM service fulfillment web services that are included with UIM as part of the RSDOD solution. Resource inventory changes are managed with business interactions. The service fulfillment web services create and change business interactions as part of the design and assign process as part of service order orchestration.

[UIM_DevGuide] Section 9, pp9-5 thru 9-34.

Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download resource data to and from the resource inventory; **AM**

The service fulfillment web services provided with UIM in addition to business interactions support the registration and access control processes that enable processes to create, modify, update or delete resource inventory.

[UIM_DevGuide] Section 9, pp9-5 thru 9-34.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.55 - Level 4: 1.1.3.1.5.2 Perform Audit Tests

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.5.2 Perform Audit Tests

Brief Description

Ensuring the supplier/partner inventory repository accurately captures and records all identified supplier/partner details, through use of automated or manual audits. **AM**

Resource specifications are created with the proper data attribution (characteristics to capture supplier/partner details. Manual or automated audits can be managed through manual queries and reports.

[UIM_Concepts] **Section 3, pp7-12.**

Extended Description

Ensuring the resource inventory repository accurately captures and records all identified resource infrastructure and resource instance details, through use of automated or manual audits; **AM**

UIM supports the perform audit test by managing the resource and service inventory. The service instances can be audited against the billing system to ensure that all subscribers receiving service are being billed for service. Additionally, the resource inventory can be used to validate service contracts with equipment vendors. Oracle Business Intelligence can be used in writing custom reports in support of this process as well.

[UIM_Concepts] **Section 3, pp7-12.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.56 - Level 4: 1.1.3.1.5.3 Track and Monitor Resource Repository Capabilities

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.5.3 Track and Monitor Resource Repository Capabilities

Brief Description

<mark>Monitoring and reporting on the usage and access to the resource inventory and the quality of the data maintained in it</mark>. **AM**

Resource usage and access is managed through the service configuration and various resource configurations, statuses, and life cycles. Rule sets can be implemented for data validation and naming standards to ensure high levels of data quality.

[**UIM_Concepts**] **Section 3.**

[**UIM_DevGuide**] **Section 8.**

Extended Description

<mark>· Tracking and monitoring of the usage of, and access to, the resource inventory repository and associated costs, and reporting on the findings;</mark> **AM**

UIM supports the tracking and monitoring of the usage and access to the resource inventory repository and associated cost. Characteristics are added to track custom attributes such as cost and other relevant information. Service Configurations provide a view of resources consumed by or supporting a service. The service configuration is a report of resources by service and provides life cycle management and a historical record/report.

[**UIM_Concepts**] **Section 3, p3-8.**

[**UIM_Concepts**] **Section 6, p6-2.**

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.57 - Level 4: 1.1.3.1.5.4 Identify Repository Issues and Provide Reports and Warnings

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.1.5.4 Identify Repository Issues and Provide Reports and Warnings

Brief Description

Managing and Identifying any Inventory Repository issues and providing warnings. **AM**

In Design Studio, specifications can be managed in a way to prevent certain resource configurations that are not valid. It provides warning and problem notifications when there are issues with a project containing specifications. It also provides recommended solutions. In UIM, the user receives warnings when he attempts to perform a task not supported by the application or the specification. The UIM server also provides a report of issues with application activities.

[**DS_Concepts**] **Section 2, pp7-12.**

[**UIM_DevGuide**] **Section 2.**

Extended Description

Identifying any technical driven shortcomings of the resource inventory repository, and providing input to Resource Development & Management processes to rectify these issues. **AM**

In UIM the Service Configuration (Resource Facing Service) defines the technical requirements for the Service (Customer Facing Service). Therefore the modeler eliminates the technical driven shortcomings of the resource inventory. Additionally, if a resource is going to be retired its specification can be retired to prevent future use using the end date on the specification.
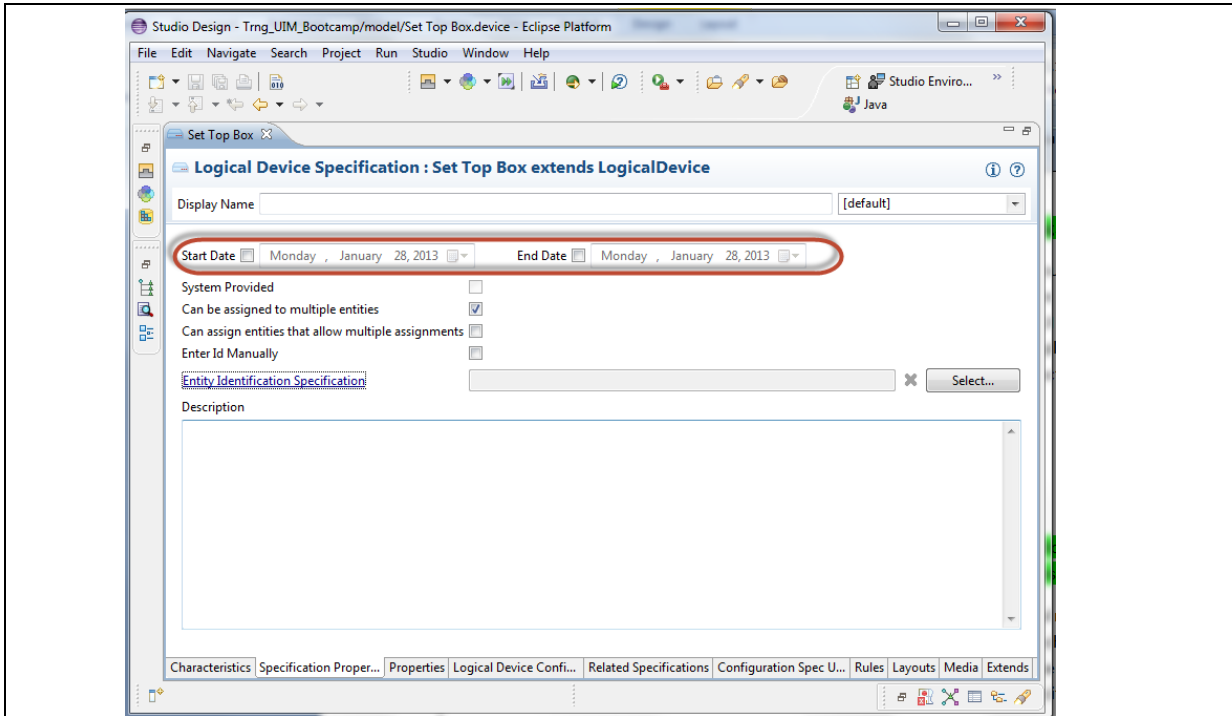
Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.3.1.6   *Level 3: 1.1.3.1.7 - Manage Logistics [Not assessed]*

4.3.1.7 *Supporting Evidence References (Works Cited)*

[DS_Concepts]   Oracle Communications Design Studio Concepts Release 7.2.2.

This guide provides a conceptual understanding of Oracle Communications Design Studio, and includes concepts related to solution design for Oracle Communications products, and to Design Studio as an integrated design environment.

[DS_InventoryOH]   Oracle Communications Design Studio Modeling Inventory 7.2.2

This document explains how to use Oracle Communication Design Studio to model inventory used in UIM.

[UIM_Concepts]   Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

[UIM_DevGuide]   Oracle Communications Unified Inventory Management Developers Guide 7.2.2.

This guide explains how to extend Oracle Communications Unified Inventory Management (UIM) through standard Java practices using Oracle Communications Design Studio, which is an Eclipse-based integrated development environment. This guide includes references to both applications, and often directs the reader to see the Design Studio Help and the UIM Help for instructions on how to perform specific tasks.

4.3.1.8 *Level 2: 1.1.3.1 - RM&O Support & Readiness – Scores*

Table 4.58 - Level 2: 1.1.3.1 - RM&O Support & Readiness – Scores

Level 2: 1.1.3.1 - RM&O Support & Readiness		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.1.3.1.1 - Enable Resource Provisioning		
	1.1.3.1.1.1 - Plan & Forecast Resource Infrastructure Requirements and Manage Capacity Planning.	
	1.1.3.1.1.2 - Establish, Manage, and Develop Organization, Tools and Processes	
	1.1.3.1.1.3 - Develop and Implement Capacity and Operational Rules and Procedures	
	1.1.3.1.1.4 - Perform Acceptance Test and Address & Monitor the Change	
	1.1.3.1.1.5 - Track & Supervise the Rollout of new and/or Modified Infrastructure	
	1.1.3.1.1.6 - Monitor, Report and Release Mgmt. of Resource Infrastructure and Capacity Utilization	
	1.1.3.1.1.7 - Optimize Existing Resource Infrastructure Utilization	
	1.1.3.1.1.8 - Track, Monitor and Report Resource Provisioning	
	1.1.3.1.1.9 - Update Inventory Record	
1.1.3.1.2 - Enable Resource Performance Management		0
1.1.3.1.3 - Support Resource Trouble Management		0
1.1.3.1.4 - Enable Resource Data Collection & Distribution		0
1.1.3.1.5 - Manage Resource Inventory		
	1.1.3.1.5.1 - Manage Resource Inventory Database and Processes	
	1.1.3.1.5.3 - Track and Monitor Resource Repository Capabilities	
	1.1.3.1.5.4 - Identify Repository Issues and Provide and Reports and Warnings	
1.1.3.1.7 - Manage Logistics		0

4.3.2   Level 2: 1.1.3.2 - Resource Provisioning

4.3.2.1   *Level 3: 1.1.3.2.1 - Allocate & Install Resource*

Table 4.59 - Level 4: 1.1.3.2.1.1 Determine Resource Availability

LEVEL 4 PROCESS MAPPING DETAILS 1.1.3.2.1.1 Determine Resource Availability
Brief Description This process investigates the ability to be able to satisfy specific service orders as a part of a feasibility check. Where the Allocate & Install Resource processes are requested by a pre-feasibility resource order, or by the Design Resources processes, these processes determine whether the requested resources are available. **AM**   This process investigates the ability to be able to satisfy specific service orders as a part of a feasibility check… Resources are managed over their entire life cycle (past, present, and future). Just as resource inventory is managed over time, the consumption of each resource is also tracked over time. Whether a resource is available depends on the time frame referenced. A resource is available for assignment or reassignment when: • Its life cycle begins before the resource is consumed • Its life-cycle state in the inventory allows it to be consumed • No consumption entity exists during the time interval **[UIM_Concepts] Chapter 4, Section: Resource Life Cycles and Statuses, p41.**   The resource inventory life cycle is different depending on whether a business interaction is being used. When a business interaction is not being used, the resource inventory life cycle is rather simple as below: **[UIM_Concepts] Chapter 4, Section: Resource Inventory Statuses, p42.** When a business interaction is being used the resource inventory life cycle offers many more states as below:
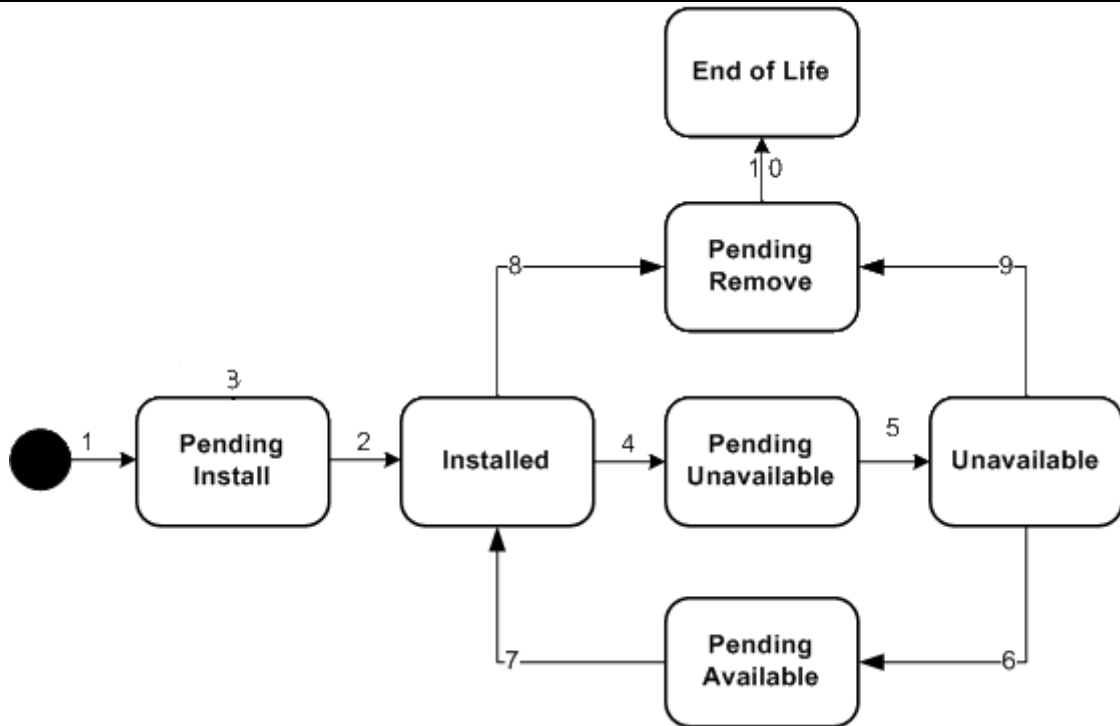
[**UIM_Concepts**] **Chapter 4, Section: Resource Inventory Statuses, p43.**

When a resource is in the Installed state it is available for use.

... Where the Allocate & Install Resource processes are requested by a pre-feasibility resource order, or by the Design Resources processes, these processes determine whether the requested resources are available.

See Mandatory section.

Extended Description

Not used for this process element

Explanatory

This process investigates the ability to be able to satisfy specific service orders as a part of a feasibility check. **AM**

See Brief Description.

Mandatory

Where the Allocate & Install Resource processes are requested by a pre-feasibility resource order, or

==by the Design Resources processes, these processes determine whether the requested resources are available.== **AM**

The resource assignment status indicates the stage in the life cycle of a specific assignment of a resource to another entity. You can set up resources to be assigned to multiple entities or set up an entity to allow multiple assignments.
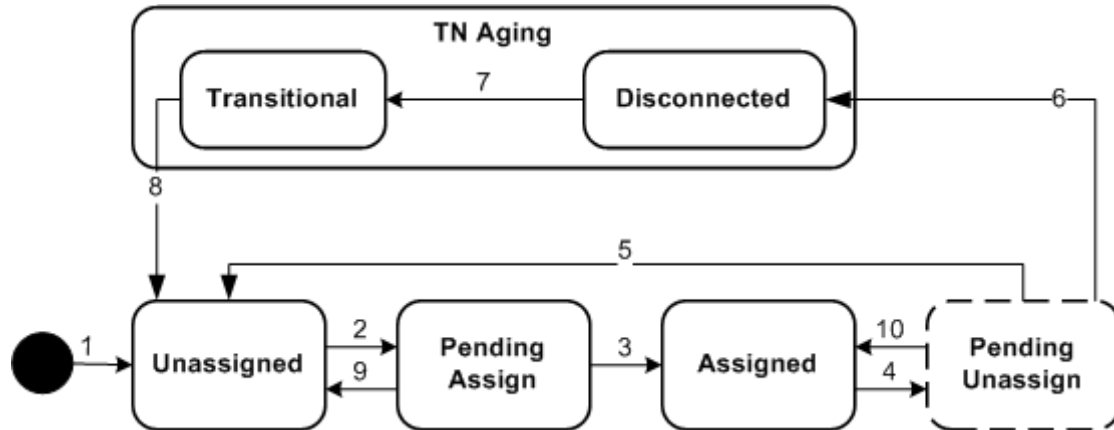
The life cycle depicts whether the resource is consumed by a service, pending consumption by a service, reserved for a service, pending disconnect, disconnected, and so on. The figure above shows the resource assignment statuses that represent the resource assignment life cycle. The status in the dashed box is not seen in the UIM application.

[UIM_Concepts] **Chapter 4, Section: Resource Assignment Statuses, pp44-45.**

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.60 - Level 4: 1.1.3.2.1.2 Reserve Resource

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.1.2 Reserve Resource

Brief Description

This process reserves specific resources in response to issued resource orders. Depending on business rules, and on any specific levels of commitment contained in the initiating resource order or resource design request, these processes may reserve specific resources linked to the initiating resource order or resource design request for a period of time. **AM**

See Mandatory section.

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

This process reserves specific resources in response to issued resource orders. **AM**

In RSDOD, you can reserve resources with UIM to prevent them from being used by other entities or processes. You can reserve resources if they are unassigned, not already reserved, and do not have a condition code that prevents assignments.

You can reserve resources for a particular project, user, or service specification. Reservations can be designated as long-term (30 days by default) or short-term (10 minutes by default). If the reservation is not redeemed by the expiry date, the resource is released back into inventory.

[UIM_Concepts] **Chapter 5, Section: Understanding Resource Reservations, pp69-70.**

Optional

Depending on business rules, and on any specific levels of commitment contained in the initiating resource order or resource design request, these processes may reserve specific resources linked to the initiating resource order or resource design request for a period of time. **AM**

See Mandatory section.

Interactions

Not used for this process element.

Table 4.61 - Level 4: 1.1.3.2.1.3 Release Resource

LEVEL 4 PROCESS MAPPING DETAILS 1.1.3.2.1.3 Release Resource

Brief Description

Release the reservation when the time period has expired. **A**

See Mandatory section.

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

Release the reservation when the time period has expired. **A**

You reserve resources to prevent them from being used by other entities or processes. You can reserve resources if they are unassigned, not already reserved, and do not have a condition code that prevents assignments.

You can reserve resources for a particular project, user, or service specification. Reservations can be designated as long-term (30 days by default) or short-term (10 minutes by default).

If the reservation is not redeemed by the expiry date, the resource is released back into inventory.

[**UIM_Concepts**] **Chapter 5, Section: Understanding Resource Reservations, pp69-70.**

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.62 - Level 4: 1.1.3.2.1.4 Allocate Resource

LEVEL 4 PROCESS MAPPING DETAILS 1.1.3.2.1.4 Allocate Resource

Brief Description

This process allocates specific resources in response to issued resource orders. Where the Allocate & Install Resource processes are requested by a resource order issued in response to a confirmed customer order, this process is responsible for allocating the specific resources required to satisfy the initiating resource order. Any previously reserved specific resources are marked as allocated.

AM

See Mandatory section.

Extended Description

Not used for this process element

Explanatory

This process allocates specific resources in response to issued resource orders. **AM**

See Mandatory section.

Mandatory

Where the Allocate & Install Resource processes are requested by a resource order issued in response to a confirmed customer order, this process is responsible for allocating the specific resources required to satisfy the initiating resource order. Any previously reserved specific resources are marked as allocated. **AM**

Some entity types can optionally be associated with configurations. A configuration is a versionable collection of facts about an entity, such as the design details of a service or the hardware resources associated with a logical device.

For entities that have configurations, basic information that is likely to stay the same over time, such as the name and description, are stored as part of the entity itself. Information that can change over time, such as the specific hardware that makes up a logical device or the resources required to fulfill a service, are stored in the entity configuration. For example, a customer might maintain a DSL service for a long period, but the router used for that service could change over time, as could the phone numbers and associated email accounts.

Configurations can be versioned, enabling you to maintain a history of how the entity has evolved over time. You can access previous versions in read-only form.

Configurations include configuration items, which you use to specify the details of the configuration. For example, you use configuration items to specify the resources that enable a service. You can

associate resources to configuration items in two ways:

- Assignment. When you assign a resource to a configuration item, that resource is consumed. For example, in a consumer VoIP service, you can assign a handset to the service configuration. In most cases, the resource can be consumed only once, so allocation places it in Assigned state.
- Reference. When you reference an entity from a configuration, you indicate that the configuration has an interest or dependency in the entity but does not consume it. For example, a cable subscription service requires a cable controller but does not consume it. In this case, a configuration item would reference the controller rather than allocating it.

[UIM_Concepts] Chapter 5, Section: About Configurations, pp59-60.

Within UIM the resource assignment life cycle is dictated by the following state-table:
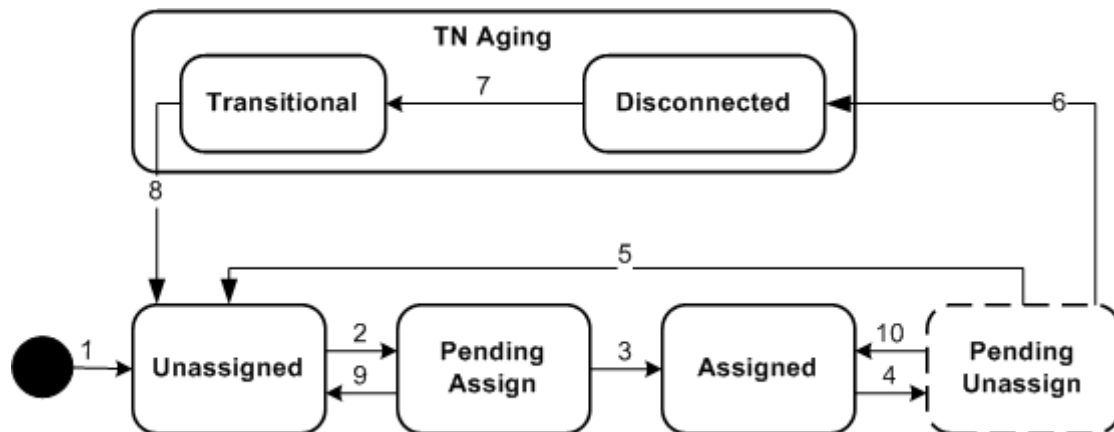
The resource assignment status indicates the stage in the life cycle of a specific assignment of a resource to another entity. You can set up resources to be assigned to multiple entities or set up an entity to allow multiple assignments.

When the resource is assigned to a configuration item, the state of the resource transitions to Pending Assign. This is shown in the above figure in transition number 2. When the configuration is completed, the state of the resource transitions to Assigned. This is shown in the above figure in transition number 3.

[UIM_Concepts] Chapter 4, Section: Resource Assignment Statuses, pp44-46.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.63 - Level 4: 1.1.3.2.1.5 Install and Commission Resource

LEVEL 4 PROCESS MAPPING DETAILS **1.1.3.2.1.5 Install and Commission Resource**

Brief Description

<mark>This process is responsible for installing and commissioning specific resources, and updating the resource inventory as part of these processes.</mark> **AM**

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

<mark>Responsible for installing and commissioning specific resources, and updating the resource inventory as part of these processes.</mark> **AM**

In the scenario where automated flow-through provisioning cannot execute because the resource has not yet been installed, OSM enables the management of (manual) installation & commissioning tasks & processes: the interactions can be both automated & manual.

Orders which require installation & commissioning can be configured to be processed as a manual task or as an automated task.

[OSM_Concepts] Chapter 5, Section: About Query Tasks for OSM Clients, pp44-45.

[OSM_Concepts] Chapter 5, Section: About Query Tasks for Order Automation Plug-ins, p46.

There are two types of tasks: automated and manual:

- **Automated tasks** require no manual intervention. Automated tasks are implemented using automation plug-ins. Automated tasks are used to handle internal interactions with external fulfillment system, such as billing systems, shipping systems, activation systems, and other fulfillment systems. OSM processes typically include more automated tasks than manual tasks.
- **Manual tasks** must be run from the Task Web client. These tasks involve manually entering or reviewing information. Manual tasks typically include tasks that require decision-making, when there are multiple choices for how to proceed with order processing. Fallout

management typically uses manual tasks.

For example, it is common in enterprise services to have to go onsite and physically install network gear. In these scenarios, OSM can also orchestrate dependent processes that might include right-of-entries to the site and reservation of workforce personnel in third-party systems.

The orchestration functionality is capable of generating an orchestration plan, which realizes assigning and coordinating appropriate service provisioning activities to the appropriate target activation system(s), with the appropriate dependencies among such activities.

[OSM_Concepts] Chapter 4: Understanding Orchestration, first paragraph, p65.

It also has scheduling capabilities that can be based on the incoming requested delivery date in the order.

[OSM_Concepts] Chapter 6, Section: How OSM Determines the Order Completion Date, p183.

The process can include updates into UIM to reflect new resource instances and then resume the flow-through activation from OSM. Within UIM, there is an inventory life cycle that indicates the stage in the life cycle for a particular type of inventoried resource. When a resource has been installed, OSM updates UIM by changing the state of the resource to Installed.

Business interactions allow you to create work orders for resources that you are planning but that you want to put in service at a later date.

[UIM_Concepts] Chapter 4, Section: Business Interactions Life Cycles & Statuses, p54, Figure 4-8 and Figure 4-2.

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.3.2.2 *Level 3: 1.1.3.2.2 - Configure & Activate Resource*

Table 4.64 - Level 4: 1.1.3.2.2.1 Configure Resource

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.2.1 Configure Resource

Brief Description

This process assesses and plans the approach to be undertaken for configuration. It re-uses standard configuration and processes applicable to specific resources. It configures and reconfigures specific resources, including customer premises equipment if part of the resource provider offering. It provides notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. It updates the information contained in the resource inventory as to the configuration of specific resources and their status. **AM**

This process assesses and plans the approach to be undertaken for configuration...

In the RSDOD solution coordination of resource configuration is managed by Oracle Communications Order and Service Management (OSM). The act of configuring the resource is managed by Oracle Communications ASAP and Oracle Communications IP Service Activator (IPSA).

... It re-uses standard configuration and processes applicable to specific resources. It configures and reconfigures specific resources, including customer premises equipment if part of the resource provider offering. It provides notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. It updates the information contained in the resource inventory as to the configuration of specific resources and their status.

See Mandatory section.

Extended Description

Not used for this process element.

Explanatory

This process re-uses standard implementation processes applicable to specific resources. **AM**

See Brief Description.

Mandatory

This process assesses and plans the approach to be undertaken for configuration. It configures and reconfigures specific resources, including customer premises equipment if part of the resource provider offering.   It provides notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. It updates the information contained in the resource inventory as to the configuration of specific resources and their status. **AM**

This process assesses and plans the approach to be undertaken for configuration…

OSM generates an orchestration plan for the order. The orchestration plan specifies the fulfillment actions required to fulfill the order; (for example, add ADSL service). It manages the sequence of those actions and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item in the customer order and identifies the processes and tasks to fulfill them. For example:

- OSM determines which fulfillment systems need to be involved; for example, a billing system and a service activation system.
- OSM determines which tasks need to be performed, and in which order; for example, initiate payment from the billing system, find a telephone number, and send data to the activation system.

A unique orchestration plan is generated for each order, based on the contents of the order.

An orchestration plan includes the following:

- Order items. Order items are individual products, services, and offers that need to be fulfilled as part of an order. Each item includes the action required to implement it: Add, Suspend, Delete, and so on. For example, a new order might add a wireless router.
- Order components. Order components are groupings of order items that can be processed together, such as a group of order items that need to be fulfilled by the same fulfillment system and share the same processing granularity. For example, to implement a broadband service, a group of order items to activate the service can be grouped in one component, and a group of order items to ship a modem can be grouped in another component. The process of organizing order items into order components is called decomposition.
- Dependencies. Dependencies are relationships in which a condition related to one item must be satisfied before the other item can be completed. For example, the order items related to VoIP provisioning are dependent on the order items for DSL provisioning. These dependencies determine the sequence in which order components are processed.

[**OSM_Concepts**] **Chapter 1, Section: How OSM Fulfills an Order, pp14-16.**

…re-uses standard configuration and processes applicable to specific resources…

OSM communicates with ASAP and IPSA to realize the configuration of the resources.

Activation tasks provide integration between Oracle Communications Order and Service Management (OSM) and either Oracle Communications ASAP or Oracle Communications IP Service Activator. When you install the OSM, OSM Integration, and Studio for Activation plug-ins in Oracle Communications Design Studio, you can model an automated process flow that includes one or more tasks that activate services in a network using those activation systems.

[DS_ModelOsmProc] Chapter 7, Section: Working with Activation Tasks, pp101-114.

...configures and reconfigures specific resources, including customer premises equipment if part of the resource provider offering...

ASAP and IPSA perform the actual configuration of the resources. Both ASAP and IPSA are activation systems but each has a distinct role. ASAP is used to configure simple services on resources, whereas IPSA is used for complex services. For both systems, cartridges are used to generate the configuration commands/operations for the resources.

ASAP cartridges are discrete software components developed for ASAP. An ASAP cartridge provides specific domain behavior on top of the core ASAP software. This domain behavior includes a part of, or all services on a network element (NE), element management system (EMS), or network management system (NMS). In this guide, all of these systems are collectively called NEs.

An ASAP cartridge is not a standalone component, but it operates in conjunction with the core ASAP software. Cartridges can be designed for a specific vendor, technology, and software load, and elements within each network cartridge can be reused in the creating of common or mixed service model cartridges. For more information, see "About Service Modeling".

An ASAP cartridge can be used to configure ASAP to provision the following:

- NEs from a specific vendor (for example, Nokia).
- Technologies, such as HLR and GSM.
- Services that are supported on an NE, such as Wireless, Optical for VoIP, IPTV, or high speed internet.

[ASAP_Cartridge] Chapter 1, Section: About ASAP Cartridges, p14.

The Network Processor uses Activation Cartridges that include XML-based vendor specific and service-specific definitions for a number of device types. Oracle Communications offers several cartridges that support a wide range of services across various vendors and OS versions.

The Network Processor component is also responsible for distributing configuration to devices. The integrated Network Processor-Cartridge architecture enables the Network Processor to manage a large range of device types.

Each cartridge is a software unit that provides configuration commands applicable to a family of vendor devices and operating systems, and a service (for example, QoS). Cartridge units apply to

specific subsets of devices and operating systems in a vendor family.

[**IPSA_Concepts**] **Chapter 1, Section: Network Processor and Cartridges, p16.**

…provides notifications as required if the configuration activity requires a planned outage or is likely to initiate false specific resource alarm event notifications…

Notifications can be generated on the condition of an activity requiring maintenance.

[**OSM_Concepts**] **Chapter 10, Section: About Using Order Rules in Notifications, p294.**

…updates the information contained in the resource inventory as to the configuration of specific resources and their status…

In UIM, resources are managed over their entire life cycle (past, present, and future). Just as resource inventory is managed over time, the consumption of each resource is also tracked over time.

[**UIM_Concepts**] **Chapter 4, Section: Resource Life Cycles and Statuses, p41.**

Optional

Not used for this process element.

Interactions

It provides notifications as required. **AM**

Notifications can be generated on the condition of an activity requiring maintenance.

[**OSM_Concepts**] **Chapter 10, Section: About Using Order Rules in Notifications, p294.**

Table 4.65 – Level 4: 1.1.3.2.2.2 Implement Resource

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.2.2 Implement Resource

Brief Description

This process re-uses standard implementation processes applicable to specific resources. It implements specific resources, including customer premises equipment if part of the resource provider offering. It provides notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. **AM**

In the RSDOD solution coordination of resource implementation is managed by Oracle Communications Order and Service Management (OSM). The act of configuring the resource is managed by Oracle Communications ASAP and Oracle Communications IP Service Activator (IPSA).

This process re-uses standard implementation processes applicable to specific resources…

OSM communicates with ASAP and IPSA to realize the implementation of the resources.

Activation tasks provide integration between Oracle Communications Order and Service Management (OSM) and either Oracle Communications ASAP or Oracle Communications IP Service Activator. When you install the OSM, OSM Integration, and Studio for Activation plug-ins in Oracle Communications Design Studio, you can model a process flow that includes one or more tasks that activate services in a network using those systems.

[DS_ModelOsmProc] **Chapter 7, Section: Working with Activation Tasks, pp101-114.**

… It implements specific resources, including customer premises equipment if part of the resource provider offering. It provides notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications.

See Mandatory section.

Extended Description

Not used for this process element.

Explanatory

This process re-uses standard implementation processes applicable to specific resources. **AM**

See Brief Description.

Mandatory

It implements specific resources, including customer premises equipment if part of the resource provider offering.   It provides notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. **AM**

It implements specific resources, including customer premises equipment if part of the resource provider offering…

ASAP and IPSA perform the actual implementation of the resources. Both ASAP and IPSA are activation systems but each has a distinct role. ASAP is used to configure simple services on resources, whereas IPSA is used for complex services. For both systems, cartridges are used to generate the implementation commands/operations for the resources.

ASAP cartridges are discrete software components developed for ASAP. An ASAP cartridge provides specific domain behavior on top of the core ASAP software. This domain behavior includes a part of, or all services on a network element (NE), element management system (EMS), or network management system (NMS). In this guide, all of these systems are collectively called NEs.

An ASAP cartridge is not a standalone component, but it operates in conjunction with the core ASAP software. Cartridges can be designed for a specific vendor, technology, and software load, and elements within each network cartridge can be reused in the creating of common or mixed service model cartridges. For more information, see "About Service Modeling".

An ASAP cartridge can be used to configure ASAP to provision the following:

- NEs from a specific vendor (for example, Nokia).
- Technologies, such as HLR and GSM.
- Services that are supported on an NE, such as Wireless, Optical for VoIP, IPTV, or high speed internet.

[ASAP_Cartridge] Chapter 1, Section: About ASAP Cartridges, p14.

The Network Processor uses Activation Cartridges that include XML-based vendor specific and service-specific definitions for a number of device types. Oracle Communications offers several cartridges that support a wide range of services across various vendors and OS versions.

The Network Processor component is also responsible for distributing configuration to devices. The integrated Network Processor-Cartridge architecture enables the Network Processor to manage a large range of device types.

Each cartridge is a software unit that provides configuration commands applicable to a family of vendor devices and operating systems, and a service (for example, QoS). Cartridge units apply to

specific subsets of devices and operating systems in a vendor family.

[IPSA_Concepts] Chapter 1, Section: Network Processor and Cartridges, p16.

...provides notifications as required if the implementation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications.

Notifications can be generated on the condition of an activity requiring maintenance.

[OSM_Concepts] Chapter 10, Section: About Using Order Rules in Notifications, p294.

Optional

Not used for this process element.

Interactions

It provides notifications as required. **AM**

Notifications can be generated on the condition of an activity requiring maintenance.

[OSM_Concepts] Chapter 10, Section: About Using Order Rules in Notifications, p294.

Table 4.66 – Level 4: 1.1.3.2.2.3 Activate Resource

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.2.3 Activate Resource

Brief Description

This process assesses and plans the approach to be undertaken for activation. It re-uses standard activation processes applicable to specific resources. It provides notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. At the successful conclusion of this activity, the status of the specific resources will be changed from allocated to activated, which means they are in-use. **AM**

This process assesses and plans the approach to be undertaken for activation…

In the RSDOD solution coordination of resource activation is managed by Oracle Communications Order and Service Management (OSM). The act of configuring the resource is managed by Oracle Communications ASAP and Oracle Communications IP Service Activator (IPSA).

… It re-uses standard activation processes applicable to specific resources…

OSM communicates with ASAP and IPSA to realize the activation of the resources.

Activation tasks provide integration between Oracle Communications Order and Service Management (OSM) and either Oracle Communications ASAP or Oracle Communications IP Service Activator. When you install the OSM, OSM Integration, and Studio for Activation plug-ins in Oracle Communications Design Studio, you can model a process flow that includes one or more tasks that activate services in a network using those systems.

[DS_ModelOsmProc] Chapter 7, Section: Working with Activation Tasks, pp101-114.

… It provides notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications. At the successful conclusion of this activity, the status of the specific resources will be changed from allocated to activated, which means they are in-use.

See Mandatory section.

Extended Description

Not used for this process element.

Explanatory

This process re-uses standard implementation processes applicable to specific resources. **AM**

See Brief Description.

Mandatory

This process assesses and plans the approach to be undertaken for activation.   It provides notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications.   At the successful conclusion of this activity, the status of the specific resources will be changed from allocated to activated, which means they are in-use. **AM**

This process assesses and plans the approach to be undertaken for activation…

OSM generates an orchestration plan for the order. The orchestration plan specifies the fulfillment actions required to fulfill the order; (for example, add ADSL service). It manages the sequence of those actions and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item in the customer order and identifies the processes and tasks to fulfill them. For example:

- OSM determines which fulfillment systems need to be involved; for example, a billing system and a service activation system.
- OSM determines which tasks need to be performed, and in which order; for example, initiate payment from the billing system, find a telephone number, and send data to the activation system.

A unique orchestration plan is generated for each order, based on the contents of the order.

An orchestration plan includes the following:

- Order items. Order items are individual products, services, and offers that need to be fulfilled as part of an order. Each item includes the action required to implement it: Add, Suspend, Delete, and so on. For example, a new order might add a wireless router.
- Order components. Order components are groupings of order items that can be processed together, such as a group of order items that need to be fulfilled by the same fulfillment system and share the same processing granularity. For example, to implement a broadband service, a group of order items to activate the service can be grouped in one component, and a group of order items to ship a modem can be grouped in another component. The process of organizing order items into order components is called decomposition.
- Dependencies. Dependencies are relationships in which a condition related to one item must be satisfied before the other item can be completed. For example, the order items related to VoIP provisioning are dependent on the order items for DSL provisioning. These

dependencies determine the sequence in which order components are processed.
[**OSM_Concepts**] **Chapter 1, Section: How OSM Fulfills an Order, pp14-16.**

...provides notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications...

Notifications can be generated on the condition of an activity requiring maintenance.

[**OSM_Concepts**] **Chapter 10, Section: About Using Order Rules in Notifications, p294.**

At the successful conclusion of this activity, the status of the specific resources will be changed from allocated to activated, which means they are in-use.

In UIM, resources are managed over their entire life cycle (past, present, and future). Just as resource inventory is managed over time, the consumption of each resource is also tracked over time.

[**UIM_Concepts**] **Chapter 4, Section: Resource Life Cycles and Statuses, p41.**

Optional

Not used for this process element.

Interactions

It provides notifications as required. **AM**

Notifications can be generated on the condition of an activity requiring maintenance.

[**OSM_Concepts**] **Chapter 10, Section: About Using Order Rules in Notifications, p294.**

4.3.2.3 *Level 3: 1.1.3.2.3 - Test Resource [Not assessed]*

4.3.2.4 *Level 3: 1.1.3.2.5 - Track & Manage Resource Provisioning*

Table 4.67 – Level 4: 1.1.3.2.5.1 Coordinate Resource Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.5.1 Coordinate Resource Provisioning Activity

Brief Description

This process schedules, assigns and coordinates resource provisioning related activities. **AM**

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

This process schedules, assigns and coordinates resource provisioning related activities. **AM**

The overall coordination is performed within OSM using orchestration.

OSM generates an orchestration plan for the order. The orchestration plan specifies the fulfillment actions required to fulfill the order; (for example, add ADSL service). It manages the sequence of those actions and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item in the customer order and identifies the processes and tasks to fulfill them. For example:

- OSM determines which fulfillment systems need to be involved; for example, a billing system and a service activation system.
- OSM determines which tasks need to be performed, and in which order; for example, initiate payment from the billing system, find a telephone number, and send data to the activation system.

A unique orchestration plan is generated for each order, based on the contents of the order.

An orchestration plan includes the following:

- Order items. Order items are individual products, services, and offers that need to be fulfilled as part of an order. Each item includes the action required to implement it: Add, Suspend, Delete, and so on. For example, a new order might add a wireless router.
- Order components. Order components are groupings of order items that can be processed together, such as a group of order items that need to be fulfilled by the same fulfillment system and share the same processing granularity. For example, to implement a broadband

service, a group of order items to activate the service can be grouped in one component, and a group of order items to ship a modem can be grouped in another component. The process of organizing order items into order components is called decomposition.

- Dependencies. Dependencies are relationships in which a condition related to one item must be satisfied before the other item can be completed. For example, the order items related to VoIP provisioning are dependent on the order items for DSL provisioning. These dependencies determine the sequence in which order components are processed.

[OSM_Concepts] Chapter 1, Section: How OSM Fulfills an Order, pp14-16.

Scheduling within OSM is managed using dependency wait conditions.

Dependency wait conditions specify the condition that the blocking order item must be in before the waiting order item can start. For example, the default wait condition is to start the waiting order item when the last task associated with the blocking order item reaches the Completed state.

You specify wait conditions in product specifications. You can set different wait conditions for each dependency. The wait conditions can be:

- The task state of the final task associated with the blocking order item
- A change in the data for a specified field. See "Modeling Dependencies Based on Data Changes" for more information.
- A specified duration after the task state or data change condition has been met. You can specify a value in months, weeks, days, hours, or minutes, or you can write an expression to determine the delay. For example, you can specify to start the waiting order item two days after the blocking order item has completed.

[OSM_Concepts] Chapter 4, Section: About Order Item Dependency Wait Conditions, p109.

OSM also controls the assignment of resource provisioning related activities.

You can assign roles to each task and to each processing type that can be performed on a task; for example, Do, Redo, and Undo. For example, you can restrict basic order processing personnel from redoing and undoing tasks and allow those operations only for fallout specialists. Roles are also used for managing jeopardy notifications for tasks.

[OSM_Concepts] Chapter 5, Section: Controlling Who Can Process a Task, p164.

There are two approaches to assigning tasks to users in OSM:

- A work offer approach, which is by role, where tasks are associated to a role and users performing that role may select tasks from their worklist to work on them.
- A work assign approach, where a task assignment algorithm is used to specifically assign each task to a user performing the role.

For each manual task, you can specify how it is assigned to an OSM user for completion. You can use

the following methods:

- Round robin assignment automatically assigns tasks to users in a workgroup alphabetically by user name.
- Load balancing assignment automatically assigns users in a workgroup to balance the workload across users, based on the number of tasks assigned to each user. The user with the least number of tasks is assigned the task.

You can also create custom automatic assignment methods. For example, you might specify that the first task received is the first one assigned or that the last task received is the first one assigned.

[OSM_Concepts] Chapter 5, Section: Specifying How to Assign Tasks to OSM Users, p164.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.68 – Level 4: 1.1.3.2.5.2 Track Resource Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.5.2 Track Resource Provisioning Activity

Brief Description

This process tracks the order execution process. **A**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process tracks the order execution process. **A**

In the RSDOD solution resource provisioning activity tracking is managed by Oracle Communications Order and Service Management (OSM).

In OSM order components are run as processes, which are in turn made of a series of tasks. You can use the OSM Web clients to monitor automated tasks and to perform manual tasks.

As the order progresses, OSM communicates with the originating CRM or order-source system to provide information about the status of the order. OSM can aggregate notifications of task completion events to present a real time, unified view of the order to the originating system and to the OSM Web clients.

[OSM_Concepts] Chapter 1, Section: How OSM Fulfills an Order, pp14-16.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.69 – Level 4: 1.1.3.2.5.3 Manage Resource Provisioning Activity

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.5.3 Manage Resource Provisioning Activity

Brief Description

This process escalates resource orders in accordance with local policy, adds information to an existing resource order, modifies information in an existing resource order, cancels a resource order when the initiating service order is cancelled, and also modifies the resource order status, including setting it to complete when the resource order has been fulfilled. **AM**

In the RSDOD solution resource provisioning activity is managed by Oracle Communications Order and Service Management (OSM). OSM is responsible for monitoring the status of resource orders and updating the status based on certain conditions and rules.

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process escalates resource orders in accordance with local policy, adds information to an existing resource order, modifies information in an existing resource order, cancels a resource order when the initiating service order is cancelled, and also modifies the resource order status, including setting it to complete when the resource order has been fulfilled. **AM**

This process escalates resource orders in accordance with local policy…

OSM uses order priority to determine which orders should be given more OSM system resources when the system is under heavy load. This ensures that orders that have higher priority are not starved for resources by lower priority orders. The order priority of in-flight orders can be changed.

[**OSM_Concepts**] **Chapter 2, Section: About Specifying the Order Priority, pp41-42.**

Jeopardy notifications can be defined for an order or for a task. Many of the jeopardy properties are the same for orders and tasks; for example, you can specify the roles to notify and the rule to trigger the notification. However, defining a jeopardy for an order or a task allows you to use the order or task properties. For example:

- You can trigger a notification based on the state of the order.

- You can trigger a notification if a task has exceeded its expected duration.

You can use two methods to trigger a jeopardy notification:

- Conditions; for example, if the order processing time has exceeded the expected duration.
- Order rules; for example, you can define an order jeopardy notification based on a rule that evaluates the data condition orderMilestone <>completion and dueDate>SpecifiedDate. This checks to see if there are any orders that are not completed but that are supposed to be completed by today.

[OSM_Concepts] Chapter 10, Section: About Jeopardy Notifications, p297.

The jeopardy notification can be used to notify a user or external system and the order priority can be manually increased using the OSM Web Client or it can be used to run an automated plugin to take custom action based on local policy.

[OSM_Concepts] Chapter 10, Section: About Using Notifications to Run Automation Plug-Ins, pp295-296.

…adds information to an existing resource order…

After OSM receives the order, it does the following:

- Determines the type of order to create.
- Validates the order data.
- Transforms the order data.
- Creates the OSM order.

As part of the step to transform the order data OSM can also perform data enrichment, which can include additional customer-specific data, order priority data, and so on.

[OSM_Concepts] Chapter 1, Section: How OSM Fulfills an Order, pp14-15.

…modifies information in an existing resource order…

Any order that is not in a closed state (Completed or Aborted) is an in-flight order. An in-flight order still has the potential for further work to be performed on it.

Using revision orders is the most efficient way to manage changes made to in-flight orders. OSM automatically detects the revisions that must be made, and changes the orchestration plan as necessary. No manual work is required to find changes that need to be made. The revision order changes the base order in OSM, so only one order needs to be managed, even when there are multiple revisions to the same order.

When you model orders and tasks, you can control the amendment processing that is allowed for the order. For example:

- If the order is allowed to be amended
- At which point in the order processing the order is no longer allowed to be amended (the

point of no return)

- Who can manage revision orders in the Task Web client
- Which data needs to be compensated, and which does not

[OSM_Concepts] **Chapter 7: Managing Changes to Orders, pp223-224.**

…cancels a resource order when the initiating service order is cancelled…

When the service order is cancelled OSM stops all activity on that order and rolls back the tasks that have been completed. If the workflow is configured to create an explicit resource order then the resource order will be halted and cancelled as part of the rollback.

[OSM_Concepts] **Chapter 1, Section: About Managing Orders, p22.**

… modifies the resource order status, including setting it to complete when the resource order has been fulfilled.

The entrance transaction for the Completed state is the Complete Task transaction. It transitions from the In Progress state.

The Complete Task transaction is used internally whenever the last task is completed in the order, which is determined automatically by OSM. Therefore the Complete Task transaction is not shown as part of the life-cycle policy in Design Studio.

[OSM_Concepts] **Chapter 6, Section: About the Completed Order State, p212.**

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.3.2.5 *Level 3: 1.1.3.2.6 - Report Resource Provisioning*

Table 4.70 – Level 4: 1.1.3.2.6.1 Monitor Resource Order Status

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.6.1 Monitor Resource Order Status

Brief Description

This process is responsible for continuously monitoring the status of resource orders. **A**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process is responsible for continuously monitoring the status of resource orders. **A**

In the RSDOD solution resource orders are managed in Oracle Communications Order and Service Management (OSM). OSM is responsible for monitoring the status of resource orders and updating the status based on certain conditions and rules.

A single order typically includes multiple order line items that request multiple products and fulfillment actions. To process the order, some order line items need to be fulfilled before others; for example, you cannot configure a call-waiting service until the base telco service is provisioned. There are also multiple external systems that OSM must interact with. OSM uses orchestration to handle all of the fulfillment actions efficiently, taking into consideration all of the dependencies between the actions.

To manage orchestration, OSM creates a unique orchestration plan for each order. The orchestration plan specifies the fulfillment functions required to fulfill the order, manages the sequence of those functions, and manages dependencies between them.

[OSM_Concepts] Chapter 4, Section: Overview of Orchestration, p65.

Resource orders in OSM follow an order life cycle. The order life cycle controls when the order starts, and how the order transitions between order states; for example, the conditions that allow an order to be amended.

Changes from one order state to another order state are called transitions. Each order state has a set of allowable transitions. For example, when an order is completed, it transitions from the In Progress state to the Completed state.

Transitions are controlled by transactions. A transaction is an action taken by the OSM system. For example, the Suspend Order transaction performs the following actions:

- Stops all processing on the order
- Transitions the order to the Suspended state

Most transactions perform transitions that change the state of the order. However, some transactions do not perform a transition to another state. For example, the Update Order transaction can make changes to an order without changing the order's state.

[OSM_Concepts] Chapter 6, Section: About Managing Order States and Transitions, pp192-193.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.71 – Level 4: 1.1.3.2.6.2 Distribute Resource Order Notification

LEVEL 4 PROCESS MAPPING DETAILS 1.1.3.2.6.2 Distribute Resource Order Notification

Brief Description

This process is responsible for managing notifications to processes and other parties registered to receive notifications of any status changes. **A**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process is responsible for managing notifications to processes and other parties registered to receive notifications of any status changes. **A**

You can use notifications to alert users and external systems to events that occur in the order process or to tell users that an action must be carried out.

There are two types of notifications:

- Use **jeopardy notifications** when you want to alert users that an order might have a problem. To trigger jeopardy notifications, OSM checks order or task conditions at specified intervals. If an action has not occurred as expected, OSM sends a notification.
- Use **event notifications** to alert users of changes to the order based on its progress. Event notifications are based on changes that occur to an order.

Notifications can be sent via e-mail or can trigger execution of an automated plugin to send notifications to an external system.

[OSM_Concepts] Chapter 10, Section: About Notifications, p293.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.72 – Level 4: 1.1.3.2.6.3 Distribute Resource Provisioning Reports

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.6.3 Distribute Resource Provisioning Reports

Brief Description

This process records, analyzes and assesses the resource order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Resource Provisioning process, including specific reports required by specific audiences. **AM**

In the RSDOD solution management reports and specialized summaries are managed by Oracle Communications Order and Service Management (OSM). The OSM Reporting Interface is used to generate reports about orders, tasks, and notifications.

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

This process records, analyzes and assesses the resource order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Resource Provisioning process, including specific reports required by specific audiences. **AM**

The OSM Reporting Interface provides a standard interface to OSM data that can be accessed using many third-party report generation applications. You can also use Ant to run reports and output data to comma-separated values (CSV) and XML files.

The Reporting Interface augments the reports that are available through the OSM Web client.

[OSM_Reports] Chapter 1: About the OSM Reporting Interface, p7.

Using the reporting interface, you can generate the following reports:

Orders Report: This report gives you an overview of pending and completed orders. You can filter the query to limit the number of responses. By specifying an OSM view mnemonic, you can display additional order information.

Order History Report: This report returns order change information for a specified time interval.

Pending Order At Task Report: This report gives you an overview of the pending orders and their related tasks information.

Processes Report: This report shows all completed and pending processes, including main processes, creation processes, and processes invoked by sub-processing.

Tasks Report: This report creates a list of pending and completed tasks (excluding sub-process tasks).

Notifications Report: This report contains a list of order and non-order based notifications.

[OSM_Reports] Chapter 1, Section: About the OSM Reports, p7.

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.3.2.6 *Level 3: 1.1.3.2.7 - Close Resource Order*

Table 4.73 – Level 3: 1.1.3.2.7 Close Resource Order

LEVEL 3 PROCESS MAPPING DETAILS
1.1.3.2.7 Close Resource Order

Brief Description

This process monitors the status of the order and changes the status to closed when it is completed. **A**

In the RSDOD solution resource orders are managed in Oracle Communications Order and Service Management (OSM). OSM is responsible for monitoring the status of resource orders and updating the status based on certain conditions and rules.

Extended description

The objective of the Close Resource Order processes is to close a resource order when the resource provisioning activities have been completed.

These processes monitor the status of all open resource orders, and recognize that a resource order is ready to be closed when the status is changed to completed. **A**

In OSM, the Completed Order State is categorized in the Closed Order State Category, i.e.: A Completed Order is considered Closed.

The entrance transaction for the Completed state is the Complete Task transaction. It transitions from the In Progress state.

The Complete Task transaction is used internally whenever the last task is completed in the order, which is determined automatically by OSM. Therefore the Complete Task transaction is not shown as part of the life-cycle policy in Design Studio.

[OSM_Concepts] Chapter 6: About OSM Order Life-Cycle Management, pp202-212.

4.3.2.7 *Level 3: 1.1.3.2.8 - Issue Resource Orders*

Table 4.74 – Level 4: 1.1.3.2.8.1 Assess Resource Request

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.8.1 Assess Resource Request

Brief Description

<mark>This process assesses the information contained in the service order, through a resource order request, initiating resource process request or supplier/partner initiated request, to determine the associated resource orders that need to be issued.</mark> **AM**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>This process assesses the information contained in the service order, through a resource order request, initiating resource process request or supplier/partner initiated request, to determine the associated resource orders that need to be issued.</mark> **AM**

Order recognition is the process of determining the type of an incoming service order so it can be mapped to an order type in OSM. Recognition rules allow OSM to accept any input message structure.

During order recognition, OSM steps through a prioritized list of recognition rules to determine which rule applies to the in-bound order. Each recognition rule is associated with an order specification. The first rule that evaluates to true determines the order specification to use for the incoming customer order and which validations and transformations are required, if any. Rules are evaluated in an order based on a property called relevancy, which is defined as part of the recognition rule specification in Design Studio.

[OSM_Concepts] Chapter 3, Section: Understanding Order Recognition, p52.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.75 – Level 4: 1.1.3.2.8.2 Create Resource Orders

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.8.2 Create Resource Orders

Brief Description

Where the initiating request or the purchased product offering has a standard set of associated resource orders this process is responsible for issuing the resource orders, and for creating a record of the relevant initiating request or customer order information and the associated resource orders.

Where the initiating request or the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or resource design has been previously created, this process is responsible for issuing the resource orders, and for creating a record of the relevant initiating request or customer order information and the associated resource orders. **AM**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

Where the initiating request or the purchased product offering has a standard set of associated resource orders this process is responsible for issuing the resource orders, and for creating a record of the relevant initiating request or customer order information and the associated resource orders.

Where the initiating request or the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or resource design has been previously created, this process is responsible for issuing the resource orders, and for creating a record of the relevant initiating request or customer order information and the associated resource orders. **AM**

Order recognition is the process of determining the type of an incoming customer order so it can be mapped to an order type in OSM. Recognition rules allow OSM to accept any input message structure.

During order recognition, OSM steps through a prioritized list of recognition rules to determine which rule applies to the in-bound order. Each recognition rule is associated with an order specification. The first rule that evaluates to true determines the order specification to use for the incoming customer order and which validations and transformations are required, if any. Rules are evaluated in an order based on a property called relevancy, which is defined as part of the recognition rule specification in Design Studio.

[OSM_Concepts] Chapter 3, Section: Understanding Order Recognition, p52.

A single order typically includes multiple order line items that request multiple products and fulfillment actions. To process the order, some order line items need to be fulfilled before others; for example, you cannot configure a call-waiting service until the base telco service is provisioned. There are also multiple external systems that OSM must interact with. OSM uses orchestration to handle all of the fulfillment actions efficiently, taking into consideration all of the dependencies between the actions.

To manage orchestration, OSM creates a unique orchestration plan for each order. The orchestration plan specifies the fulfillment functions required to fulfill the order, manages the sequence of those functions, and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item of the customer order and identifies the processes and tasks to fulfill them. For example:

- OSM determines which fulfillment systems need to be involved; for example, a billing system and a service activation system.
- OSM determines which tasks need to be performed, and in which order; for example, initiate payment from the billing system, find a telephone number, and send data to the activation system.

[OSM_Concepts] Chapter 4, Section: Overview of Orchestration, p65.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.76 – Level 4: 1.1.3.2.8.3 Mark Resource Order for Special Handling

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.8.3 Mark Resource Order for Special Handling

Brief Description

Where the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or specific resource design has not been previously created, this process marks the issued resource order as requiring special handling, and passes management for further processing to the Track & Manage Resource Provisioning process. **AM**

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

Where the purchased product offering has special or unusual requirements, and a specific feasibility assessment and/or specific resource design has not been previously created, this process marks the issued resource order as requiring special handling, and passes management for further processing to the Track & Manage Resource Provisioning process. **AM**

Order recognition is the process of determining the type of an incoming customer order so it can be mapped to an order type in OSM. Recognition rules allow OSM to accept any input message structure.

During order recognition, OSM steps through a prioritized list of recognition rules to determine which rule applies to the in-bound order. Each recognition rule is associated with an order specification. The first rule that evaluates to true determines the order specification to use for the incoming customer order and which validations and transformations are required, if any. Rules are evaluated in an order based on a property called relevancy, which is defined as part of the recognition rule specification in Design Studio.

[OSM_Concepts] **Chapter 3, Section: Understanding Order Recognition, p52.**

A single order typically includes multiple order line items that request multiple products and fulfillment actions. To process the order, some order line items need to be fulfilled before others; for example, you cannot configure a call-waiting service until the base telco service is provisioned. There are also multiple external systems that OSM must interact with. OSM uses orchestration to

handle all of the fulfillment actions efficiently, taking into consideration all of the dependencies between the actions.

To manage orchestration, OSM creates a unique orchestration plan for each order. The orchestration plan specifies the fulfillment functions required to fulfill the order, manages the sequence of those functions, and manages dependencies between them.

To create the orchestration plan, OSM reads the requirements defined in each order line item of the customer order and identifies the processes and tasks to fulfill them. For example:

- OSM determines which fulfillment systems need to be involved; for example, a billing system and a service activation system.
- OSM determines which tasks need to be performed, and in which order; for example, initiate payment from the billing system, find a telephone number, and send data to the activation system.

[OSM_Concepts] **Chapter 4, Section: Overview of Orchestration, p65.**

When an order arrives at OSM that requires special handling, order recognition rules can be used to identify that special handling is required. Then orchestration can be used to specify what special handling is required for that incoming order.

Optional

Not used for this process element.

Interactions

Passes management for further processing to the Track & Manage Resource Provisioning process.

4.3.2.8 *Level 3: 1.1.3.2.9 - Recover Resource*

Table 4.77 – Level 4: 1.1.3.2.9.1 Develop Resource Recovery Plan

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.1 Develop Resource Recovery Plan

Brief Description

Where appropriate recovery plans are not available this process is responsible for developing appropriate recovery plans. **M**

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

Where appropriate recovery plans are not available this process is responsible for developing appropriate recovery plans. **M**

Within the overall RSDOD solution, the development of recovery plans is done as part of the Develop Resource Management 1.2.3.3.5 and specifically Develop Required Processes & Procedures 1.2.3.3.5.2.

When this business process is conducted within a fulfillment process, for example as a result of a large fallout scenario where many resources are in pending states, UIM & OSM provide search capability to isolate Resources that require recovery.

UIM provides a search framework that enables you to find entities based on a wide variety of criteria that depend on the entity type. You can combine criteria for an even more specific search. For example, you could search for all Equipment entities that are based on a particular specification and are in the **Pending Install** inventory status.

[UIM_Concepts] **Chapter 5, Section: About Search, p57.**

Similarly, OSM allows searches on orders based on various criteria and to initiate manual actions in as part of the recovery plan.

The Order Management Web client includes features that enable you to find orders by using a variety of criteria. When you first open it, the application includes three saved searches:

- **Minimal Fields**. Includes search criteria for a limited set of fields, including order ID, reference number, namespace, and type.
- **Failed Orders**. Finds all orders in the **Failed** state. This is the default search until you specify another as the default.
- **All Fields**. Includes search criteria for all available fields, including the standard fields applicable to all orders with orchestration plans as well as any custom fields defined for a particular orchestration plan.

[OSM_OMWebClient] Chapter 2, Section: About Searching, pp25-28.

You can resolve failed orders, cancel, terminate & roll-back manually from OSM's Web UI.

[OSM_OMWebClient] Chapter 4: Managing Orders, pp53-66.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.78 - Level 4: 1.1.3.2.9.2 Provide Resource Recovery Proposal Notification

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.2 Provide Resource Recovery Proposal Notification

Brief Description

Where recovery of services is likely to impact other in-use specific services, this process is responsible for providing appropriate notification of the recovery proposal. **AM**

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

Where recovery of services is likely to impact other in-use specific services, this process is responsible for providing appropriate notification of the recovery proposal. **AM**

You can use notifications to alert users and external systems to events that occur in the order process or to tell users that an action must be carried out.

You define notifications when you model orders, tasks, and processes. When defining the order for recovery of services, a notification can be sent if it is determined that the recovery of the service is likely to impact other in-use specific services.

Notifications can be sent via e-mail or can trigger execution of an automated plugin to send notifications to an external system.

[OSM_Concepts] Chapter 10: About Notifications, pp293-296.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.79 – Level 4: 1.1.3.2.9.3 Request Resource Recovery Authorization

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.3 Request Resource Recovery Authorization

Brief Description

<mark>Ensure authorization is received to proceed with the recovery plan.</mark> **AM**

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

<mark>Ensure authorization is received to proceed with the recovery plan.</mark> **AM**

Authorizations can be co-ordinated using manual tasks in Oracle Communications Order and Service (OSM). In order to gain authorization for proceeding with a recovery plan, a manual task could be created within OSM that could only be completed by a user with sufficient privileges.

A task is a specific activity that must be carried out to complete the order; for example, if an order needs to verify that an ASDL service was activated, you might model a task named Verify ASDL Service. Tasks can be manual or automated. Manual tasks must be processed by an order manager, using the Task Web client. Automated tasks run automatically with no manual intervention.

[OSM_Concepts] Chapter 5, Section: About Tasks and Processes, p153.

You can assign roles to each task and to each processing type that can be performed on a task; for example, Do, Redo, and Undo. For example, you can restrict basic order processing personnel from redoing and undoing tasks and allow those operations only for fallout specialists. Roles are also used for managing jeopardy notifications for tasks.

[OSM_Concepts] Chapter 5, Section: Controlling Who Can Process a Task, p164.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.80 – Level 4: 1.1.3.2.9.4 Commence Resource Recovery

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.4 Commence Resource Recovery

Brief Description

<mark>When the recovery activity is about to commence, this process is responsible for notifying when recovery work is commencing.</mark> **AM**

In the RSDOD solution notifications are managed in Oracle Communications Order and Service (OSM).

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

<mark>When the recovery activity is about to commence, this processes is responsible for notifying when recovery work is commencing.</mark> **AM**

You can use notifications to alert users and external systems to events that occur in the order process or to tell users that an action must be carried out. In this case it would be a notification that an event has occurred or is about to occur.

You define notifications when you model orders, tasks, and processes. When defining the order for recovery of services, a notification can be configured to be sent when the recovery work is about to commence.

Notifications can be sent via e-mail or can trigger execution of an automated plugin to send notifications to an external system.

[OSM_Concepts] Chapter 10: About Notifications, pp293-296.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.81 – Level 4: 1.1.3.2.9.5 Complete Resource Recovery

| LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.5 Complete Resource Recovery |
|---|

Brief Description

This process is responsible for notifying when it is completed. When recovered, the specific resources and/or associated resource specific parameters will be marked as unallocated. **AM**

In the RSDOD solution notifications are managed in Oracle Communications Order and Service (OSM). Resource allocation is managed in Oracle Communications Unified Inventory Management (UIM). UIM is aligned with the TM Forum's Information Framework (SID). The entity types available in UIM are aligned with SID and detailed in the UIM Concepts Guide.

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

This process is responsible for notifying when it is completed. When recovered, the specific resources and/or associated resource specific parameters will be marked as unallocated. **AM**

…notifying when it is completed…

You can use notifications to alert users and external systems to events that occur in the order process or to tell users that an action must be carried out. In this case it would be a notification that an event has occurred.

You define notifications when you model orders, tasks, and processes. When defining the order for recovery of services, a notification can be configured to be sent when the recovery work is completed.

Notifications can be sent via e-mail or can trigger execution of an automated plugin to send notifications to an external system.

[**OSM_Concepts**] **Chapter 10: About Notifications, pp293-296.**

==…When recovered, the specific resources and/or associated resource specific parameters will be marked as unallocated…==

Some entity types can optionally be associated with configurations. A configuration is a versionable collection of facts about an entity, such as the design details of a service or the hardware resources associated with a logical device.

For entities that have configurations, basic information that is likely to stay the same over time, such as the name and description, are stored as part of the entity itself. Information that can change over time, such as the specific hardware that makes up a logical device or the resources required to fulfill a service, are stored in the entity configuration. For example, a customer might maintain a DSL service for a long period, but the router used for that service could change over time, as could the phone numbers and associated email accounts.

Configurations can be versioned, enabling you to maintain a history of how the entity has evolved over time. You can access previous versions in read-only form.

Configurations include configuration items, which you use the specify the details of the configuration. For example, you use configuration items to specify the resources that enable a service. You can associate resources to configuration items in two ways:

- Assignment. When you assign a resource to a configuration item, that resource is consumed. For example, in a consumer VoIP service, you can assign a handset to the service configuration. In most cases, the resource can be consumed only once, so allocation places it in Assigned state.
- Reference. When you reference an entity from a configuration, you indicate that the configuration has an interest or dependency in the entity but does not consume it. For example, a cable subscription service requires a cable controller but does not consume it. In this case, a configuration item would reference the controller rather than allocating it.

[UIM_Concepts] **Chapter 5, Section: About Configurations, pp59-60.**

Within UIM the resource assignment life cycle is dictated by the following table:

The resource assignment status indicates the stage in the life cycle of a specific assignment of a resource to another entity. You can set up resources to be assigned to multiple entities or set up an

entity to allow multiple assignments.

When the resource is unassigned from the configuration item, the state of the resource transitions to Pending Unassign. This is shown in the above figure in transition number 4. When the configuration is completed, the state of the resource transitions to Unassigned. This is shown in the above figure in transition number 5.

[UIM_Concepts] Chapter 4, Section: Resource Assignment Statuses, pp44-46.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.82 – Level 4: 1.1.3.2.9.6 Recover Specific Resource

LEVEL 4 PROCESS MAPPING DETAILS
1.1.3.2.9.6 Recover Specific Resource

Brief Description

<mark>This process recovers a specific resource that is no longer required.</mark> **AM**

In the RSDOD solution resource recovery is managed by Oracle Communications Order and Service Management (OSM). Resource allocation is managed in Oracle Communications Unified Inventory Management (UIM). UIM is aligned with the TM Forum's Information Framework (SID). The entity types available in UIM are aligned with SID and detailed in the UIM Concepts Guide.

Extended Description

Not used for this process element

Explanatory

Not used for this process element.

Mandatory

<mark>This process recovers a specific resource that is no longer required.</mark> **AM**

In OSM order components are run as processes, which are in turn made of a series of tasks. You can use the OSM Web clients to monitor automated tasks and to perform manual tasks.

As the order progresses, OSM communicates with the originating CRM or order-source system to provide information about the status of the order. OSM can aggregate notifications of task completion events to present a real time, unified view of the order to the originating system and to the OSM Web clients.

[OSM_Concepts] Chapter 1, Section: How OSM Fulfills an Order, p16.

OSM works with UIM to update the status of the resource in UIM when the resource has been recovered.

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.3.2.9 *Supporting Evidence References (Works Cited)*

[ASAP_Cartridge]   Oracle Communications ASAP Cartridge Development Guide Release 7.2.

This guide provides guidance and best practices for creating an Oracle Communications ASAP cartridge using Oracle Communications Design Studio for Activation.

[DS_ModelOsmProc] Oracle Communications Design Studio Modeling OSM Processes Release 7.2.2.

This guide provides information about modeling data for Oracle Communications Order and Service Management (OSM).

[IPSA_Concepts]   Oracle Communications IP Service Activator Concepts Version 7.2.

This guide provides an outline of the key features and benefits of Oracle Communications IP Service Activator, an overview of the distributed architecture, an explanation of the basic concepts of VPN services, policy-based services, and of the capabilities extended by the Configuration Development Kit.

[OSM_Concepts]   Oracle Communications Order and Service Management Concepts Release 7.2.2.

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

[OSM_OMWebClient] Oracle Communications Order and Service Management Order Management Web Client User's Guide Release 7.2.2.

This document provides information about using the Oracle Order and Service Management (OSM) Order Management Web client.

[OSM_Reports]   Oracle Communications Order and Service Management Reporting Interface Guide Release 7.2.2.

This guide describes how to install and use Oracle Communications Order and Service Management (OSM) Reporting Interface to generate reports from order data.

[UIM_Concepts]   Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

4.3.2.10 *Level 2: 1.1.3.2 - Resource Provisioning - Scores*

Level 2: 1.1.3.2 - Resource Provisioning		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.1.3.2.1 - Allocate & Install Resource		**5**
	1.1.3.2.1.1 - Determine Resource Availability	100%
	1.1.3.2.1.2 - Reserve Resource	100%
	1.1.3.2.1.3 - Release Resource	100%
	1.1.3.2.1.4 - Allocate Resource	100%
	1.1.3.2.1.5 - Install and Commission Resource	100%
1.1.3.2.2 - Configure & Activate Resource		**5**
	1.1.3.2.2.1 - Configure Resource	100%
	1.1.3.2.2.2 - Implement Resource	100%
	1.1.3.2.2.3 - Activate Resource	100%
1.1.3.2.3 - Test Resource		**0**
1.1.3.2.5 - Track & Manage Resource Provisioning		**5**
	1.1.3.2.5.1 - Coordinate Resource Provisioning Activity	100%
	1.1.3.2.5.2 - Track Resource Provisioning Activity	100%
	1.1.3.2.5.3 - Manage Resource Provisioning Activity	100%
1.1.3.2.6 - Report Resource Provisioning		**5**
	1.1.3.2.6.1 - Monitor Resource Order Status	100%
	1.1.3.2.6.2 - Distribute Resource Order Notification	100%
	1.1.3.2.6.3 - Distribute Resource Provisioning Reports	100%
1.1.3.2.7 - Close Resource Order		**5**
	1.1.3.2.7 - Close Resource Order	100%
1.1.3.2.8 - Issue Resource Orders		**5**
	1.1.3.2.8.1 - Assess Resource Request	100%
	1.1.3.2.8.2 - Create Resource Orders	100%
	1.1.3.2.8.3 - Mark Resource Order for Special Handling	100%
1.1.3.2.9 - Recover Resource		**5**
	1.1.3.2.9.1 - Develop Resource Recovery Plan	100%
	1.1.3.2.9.2 - Provide Resource Recovery Proposal Notification	100%
	1.1.3.2.9.3 - Request Resource Recovery Authorization	100%
	1.1.3.2.9.4 - Commence Resource Recovery	100%
	1.1.3.2.9.5 - Complete Resource Recovery	100%
	1.1.3.2.9.6 - Recover Specific Resource	100%

4.4   Level 1: 1.1.4 - Supplier/Partner Relationship Management

4.4.1   Level 2: 1.1.4.2 - S/P Requisition Management

4.4.1.1   *Level 3: 1.1.4.2.1 - Select Supplier/Partner [Not assessed]*

4.4.1.2   *Level 3: 1.1.4.2.2 - Determine S/P Pre-Requisition Feasibility [Not assessed]*

4.4.1.3   *Level 3: 1.1.4.2.3 - Track & Manage S/P Requisition [Not assessed]*

4.4.1.4   *Level 3: 1.1.4.2.4 - Receive & Accept S/P Requisition [Not assessed]*

4.4.1.5   *Level 3: 1.1.4.2.5 - Initiate S/P Requisition Order*

Table 4.83 – Level 4: 1.1.4.2.5.1 Generate S/P Requisition Order

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.5.1 Generate S/P Requisition Order

Extended Description

Not used for this process element.

Explanatory

The S/P Requisition Order contains the originating request identifier to allow for appropriate linking to the processes which originally caused the S/P requisition order to be initiated. The S/P Requisition Order may be for the initiation of new S/P requisition orders, for modifications to previously issued S/P requisition orders or for cancellation of previously issued S/P requisition orders.

Mandatory

This process generates a correctly formatted and specified S/P requisition order **A**

OSM is capable of generating any outgoing message – in this case, S/P requisition order – in any required format. This is performed by the automation plug-in of OSM, which transforms the data available at this task to generate the S/P requisition order of the correct format. This implementation can be in either XSLT or XQuery.

[OSM_Concepts] Chapter 5, Section: Understanding Automation Plug-ins, p168.

 "Sender plug-ins sends information from OSM to an external system. They perform business logic and can update orders. Additionally, they can produce outgoing JMS or XML messages to be delivered to an external system.

Both plug-in types can be implemented using XSLT or XQuery."

[OSM_DevGuide] Chapter 5, Section: About Predefined Automation Plug-Ins, pp117-133.

For example, in the Mobile GSM reference implementation, OSM has a fulfillment function to implement an automation plug-in via TN Port-In/Out Authority, for porting in and out MSISDNs to 3rd-party Telco's.

[OSS_Guidelines] p20.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.84 – Level 4: 1.1.4.2.5.2 Issue S/P Requisition Order

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.5.2 Issue S/P Requisition Order

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>This process issues the S/P requisition order to the selected supplier/partner.</mark> **A**

OSM is capable of issuing the S/P requisition order to the selected supplier/partner. This is performed by the automation plug-in of OSM, which sends the S/P requisition order as a message to the correct address of the selected supplier/partner.

[OSM_Concepts] Chapter 5, Section: Understanding Automation Plug-ins, p168.

[OSM_DevGuide] Chapter 5, Section: About Predefined Automation Plug-Ins, pp117-133.

With automation, the RSDOD solution can integrate with any supplier or partner system. Many transport protocols are supported (e.g. SOAP, XML, Web Service). See **[OSM_DevGuide] Chapter 8, Section: About Data Providers and Adapters, pp163-164** for a supported list**.**

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.4.1.6   *Level 3: 1.1.4.2.6 - Report S/P Requisition*

Table 4.85 – Level 4: 1.1.4.2.6.1 Monitor S/P Requisition Order Status

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.6.1 Monitor S/P Requisition Order Status

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Continuously monitor the status of S/P requisition orders.</mark> **AM**

As S/P requisition order progresses, it can be monitored using Fulfillment State Management component in OSM. The message responses and status updates from supplier/partner for the requisition order can be represented as "fulfillment states". Such fulfillment state denotes the progress of the S/P requisition order. They can be monitored in the Order Management web UI.

*An example below considers S/P requisition as another fulfillment function similar to Billing and Activation***:**

OSM Orchestration Order (7)
Composite Fulfillment State=Part_Success

OrderItem_VoIP: (5)
Composite Fulfillment State=Completed

OrderItem_Mobile: (6)
Composite Fulfillment State=Failed

OrderComponent_Billing: (2)
External Fulfillment State=OK
  OrderItem_VoIP:
    Mapped Fulfillment State=Complete
  OrderItem_Mobile:
    Mapped Fulfillment State=Complete

OrderComponent_Activation: (4)
External Fulfillment State=MOBILE_FAIL
  OrderItem_VoIP:
    Mapped Fulfillment State=Complete
  OrderItem_Mobile:
    Mapped Fulfillment State=Fail

CustomAutomation_Billing:
Transmits status directly from
billing system (1)

CustomAutomation_Activation: (3)
Uses custom code to translate the actual
response from the activation system.

[OSM_Concepts] Chapter 4, Section: Modeling Fulfillment States, Figure 4-57, p120.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.86 – Level 4: 1.1.4.2.6.2 Manage S/P Requisition Order Status Notification

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.6.2 Manage S/P Requisition Order Status Notification

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Manage notifications to processes and other parties registered to receive notifications of any status changes.</mark> **A**

Notification events can be generated by fulfillment state changes associated with the requisition order. These notifications may be to operational personnel, such as in the form of emailing to users that are registered to a workgroup. These notifications can be sent to external systems as well.

[OSM_Concepts] Chapter 10, Section: About Notifications, p293.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.87 – Level 4: 1.1.4.2.6.3 Report S/P Requisition Order Status

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.6.3 Report S/P Requisition Order Status

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>Record, analyze and assess the S/P requisition order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Order Handling process, including specific reports required by specific audiences.</mark> **A**

All fulfillment state changes, including those associated with the requisition order, are stored as audit trails in OSM. Management reports can be generated via the OSM Reporting Interface on such, with a view mnemonic based on fulfillment state in the orders.

[OSM_Reports] Chapter 1, Section: About the OSM Reports, p7.

"The Orders report displays the following data:
■ *Order ID*
■ *Reference number*
■ *Order type description and mnemonic*
■ *Order source description and mnemonic*
■ *Process description and mnemonic*
This is the current process of an order. (This data is empty for completed orders.)
■ *Process status description and mnemonic (last process status)*
■ *Order creation date & time*
■ *Order start date & time*
■ *Expected duration of the order in days*
■ *Actual duration of the order in days*
■ *Expected order completion date*
■ *Completion date of the order*
This data is empty for pending orders
■ *Namespace description and mnemonic*
■ *Version*
■ *Order-specific data (specified by a view)"*

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.4.1.7 *Level 3: 1.1.4.2.7 - Close S/P Requisition Order*

Table 4.88 – Level 4: 1.1.4.2.7.1 Monitor Status- All Open S/P Requisition Order

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.7.1 Monitor Status- All Open S/P Requisition Order

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

<mark>monitors the status of all open S/P requisition order</mark> **AM**

After issuing the S/P requisition order, the automation plug-in of OSM is capable of listening to replies from an external system – in this case, the supplier/partner system – for any updates on the requisition order. Once an update is receiving, the status can be update as a fulfillment state update. Thus, the status of the open S/P requisition order is monitored via the fulfillment state of the activity that manages the S/P requisition order.

[OSM_Concepts] Chapter 5, Section: Understanding Automation Plug-ins, p168.

[OSM_DevGuide] Chapter 5, Section: About Predefined Automation Plug-Ins, pp117-133.

[OSM_Concepts] Chapter 4, Section: Modeling Fulfillment States, pp117-126.

Optional

Not used for this process element.

Interactions

Not used for this process element.

Table 4.89 – Level 4: 1.1.4.2.7.2 Mark S/P Requisition Order As Closed

LEVEL 4 PROCESS MAPPING DETAILS
1.1.4.2.7.2 Mark S/P Requisition Order As Closed

Extended Description

Not used for this process element.

Explanatory

Not used for this process element.

Mandatory

closes S/P requisition order when status is changed to completed **A**

The activity that manages the S/P requisition order goes to complete state when the automation layer detects the requisition order is completed. Any explicit action to close S/P requisition order can also be specified at this point.

[**OSM_Concepts**] **Chapter 5, Section: Understanding Automation Plug-ins, p168.**

[**OSM_DevGuide**] **Chapter 5, Section: About Predefined Automation Plug-Ins, pp117-133.**

Optional

Not used for this process element.

Interactions

Not used for this process element.

4.4.1.8 *Supporting Evidence References (Works Cited)*

[OSM_Concepts]　　　　Oracle Communications Order and Service Management Concepts Release 7.2.2

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

[OSM_DevGuide]　　　　Oracle Communications Order and Service Management Developer's Guide Release 7.2.2

This document provides information about the customizable areas of Oracle Communications Order and Service Management (OSM) such as Web Services, Automation etc.

[OSM_Reports]　　　　Oracle Communications Order and Service Management Reporting Interface Guide Release 7.2.2

This guide describes how to install and use Oracle Communications Order and Service Management (OSM) Reporting Interface to generate reports from order data.

[OSS_Guidelines]　　　　Guidelines and Best Practices OSS Solution Development, Release 7.2.2

Note: This document is available to download by support paying Customers from My Oracle Support.

4.4.1.9   *Level 2: 1.1.4.2 - S/P Requisition Management – Scores*

Level 2: 1.1.4.2 - S/P Requisition Management		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.1.4.2.1 - Select Supplier/Partner		0
1.1.4.2.2 - Determine S/P Pre-Requisition Feasibility		0
1.1.4.2.3 - Track & Manage S/P Requisition		0
1.1.4.2.4 - Receive & Accept S/P Requisition		0
1.1.4.2.5 - Initiate S/P Requisition Order		**5**
	1.1.4.2.5.1 - Generate S/P Requisition Order	100%
	1.1.4.2.5.2 - Issue S/P Requisition Order	100%
1.1.4.2.6 - Report S/P Requisition		**5**
	1.1.4.2.6.1 - Monitor S/P Requisition Order Status	100%
	1.1.4.2.6.2 - Manage S/P Requisition Order Status Notification	100%
	1.1.4.2.6.3 - Report S/P Requisition Order Status	100%
1.1.4.2.7 - Close S/P Requisition Order		**5**
	1.1.4.2.7.1 - Monitor Status- All Open S/P Requisition Order	100%
	1.1.4.2.7.2 - Mark S/P Requisition Order As Closed	100%

4.5   Level 1: 1.2.1 - Marketing & Offer Management

4.5.1   Level 2: 1.2.1.5 - Product & Offer Development & Retirement

For the Level 3's within Level 2 Product & Offer Development & Retirement 1.2.1.5, the Conformance Level granted is based on the conformance result granted in the ORACLE RODOD Solution Conformance Assessment. They represent the processes that overlap and integrate RODOD and RSDOD using Central Order Management capabilities of OSM – a component of both RODOD & RSDOD. For further details on RODOD, please see the ORACLE RODOD Conformance Certification Results.

4.5.1.1   *Level 3: 1.2.1.5.1 - Gather & Analyze New Product Ideas [Not assessed]*

4.5.1.2   *Level 3: 1.2.1.5.2 - Assess Performance of Existing Products [Not assessed]*

4.5.1.3   *Level 3: 1.2.1.5.3 - Develop New Product Business Proposal [Not assessed]*

4.5.1.4   *Level 3: 1.2.1.5.4 - Develop Product Commercialization Strategy [Not assessed]*

4.5.1.5   *Level 3: 1.2.1.5.5 - Develop Detailed Product Specifications [Not assessed]*

4.5.1.6   *Level 3: 1.2.1.5.6 - Manage Product Development [Not assessed]*

4.5.1.7   *Level 3: 1.2.1.5.7 - Launch New Products*

Table 4.90 - Level 3: 1.2.1.5.7 - Launch New Products

LEVEL 3 PROCESS MAPPING DETAILS 1.2.1.5.7 Launch New Products
Brief Description Manage the initial introduction of new and enhanced products into the market and handover to operations for ongoing rollout **(A/M)** *Covered within the body of the Extended Description.* **[RODOD Whitepaper]:   Page 14 to 16** *For background, this section of the RODOD whitepaper provides a high-level overview of the Product Launch process in the context of this solution.* **Extended Description** The Launch New Products processes manage the initial introduction of new and enhanced products into the market and handover to operations for ongoing rollout. **(A/M)** *When new products are launched there is a requirement to take the design time definition of*

products and services in the Product Hub, and have these synchronized to the operational systems (e.g. CRM, ERP, Billing, Service Fulfillment), ready for handover to operations. Oracle automates this process across our applications through the Application Integration Architecture Product MDM Process Integration Pack, a core component of the RODOD solution.

[P-MDM Integration Impl Guide]: (A/M) Page 3.8 -3.11

As described in the 'Develop Detailed Product Specifications' process, in Product Hub for Communications the building blocks for product and service attribution come from 'Item Catalog Categories' or ICC's. ICC's can be thought of as 'Product Classes', and these provide metadata common to all items that share the category. ICC's are hierarchically structured, with characteristics (attribute groups, attributes, value sets, functions, pages, lifecycles, criteria templates, and result formats) being inherited throughout the hierarchy. Therefore when launching new products, the related class information must be shared/published with the relevant operational systems. As default Oracle supports the publication of ICC data to Siebel CRM, but other target systems can be added to the publication framework by a CSP. ICC data will include relationships/structure under the ICC, attribute groups, attributes (seeded, user-defined & transactional), value-sets, etc. During the product launch process a Product Administrator will publish all ICC data related to the product launch in Product Hub to Siebel CRM using the publication-framework user interface and the out-of-the-box AIA-based integration.

[P-MDM Integration Impl Guide]: (A/M) Page 2.2 -2.10

In Product Hub once your ICC's and associated meta-data is defined Product Manager's will define and attribute the details of the new products and services being launched. This will be done in the 'Develop Detailed Product Specifications' process by creating items, BOMs, attribute values, value overrides, exclusion rules, compatibility rules, billing products, billing discounts, etc. This is the core product data that will be required by operations and the operational systems such as CRM, Billing, and ERP when products are launched. Again, Oracle provides out-of-the-box integration from Product Hub to CRM, Billing and ERP to automatically publish this product data as part of the product launch process. The Product Administrator uses the same publication-framework UI to select the products he/she wishes to publish/launch, and which target systems the product data should be published to.

[Comms O2C Impl Guide]: (A/M)Page 6.1 – 6.5

As part of the product launch process the product classes (ICC's) and all associated metadata such as attributes, value-sets pushed to Siebel from Product Hub also needs to be used within the Service Fulfillment domain to drive the order fulfillment process. This documentation explains how the product to service mapping specialist in OSM will query/import the product class and the associated transaction attributes from Siebel into a cartridge using the OSM design-time environment. The product to service mapping specialist will map the product class to a product specification in the cartridge. The product specification is used to associate decomposition rules, fulfillment functions and their dependencies. Once all the design time setup is completed the cartridge is deployed as part of the product launch process to support the run-time fulfillment of customer orders.

In summary, the focus of this process is to take the detailed product specifications developed in '1.2.1.5.5 Develop Detailed Product Specifications' and ensure that these are synchronized to the various operational systems such as Siebel CRM, Billing & Revenue Management, and Order &

Service Management as part of the Product Launch process.

The initial introduction could be through commercial pilots or market trials, in which case the commercial negotiations for the pilot and/or trial are managed through these processes. *(A/M)*

[*Siebel Marketing User Guide*]: *(A/M) Page 15 - 18*

Siebel Marketing can be used to define and execute stand-alone marketing campaigns to trial the launch of new products / promotions. Segmentation and eligibility rules can be used to identify control groups for the product trial, and promotional pricing defined across the groups to test market acceptance.

[*Siebel Marketing User Guide*]: *(A/M) Page 19 – 23*

The actual commercial negotiations for any pilot and/or trial product launch are typically manual processes supported & managed through the Planning & Budgeting capabilities provided as part of the Siebel Marketing solution. The Marketing Planning module can be applied to fit any organizational planning approach, including plans based on funding, budgets, time periods, business units, product lines, etc.

These processes identify the shortcomings or issues, and manage the necessary improvements to the product to allow full rollout. *(M)*

- *(M)*

As the results of the trials are analyzed, appropriate adjustments to the products and services being launched can be manually made by a Product Manager through the Product Hub to fine tune the proposition that will be finally launched.

At the conclusion of the pilots and/or trials when the product passes its acceptance tests or defined acceptance criteria, these processes manage the handover to operations. *A/M*

[**P-MDM Integration Impl Guide**]: *(A/M) Page 3.8 -3.11*
 [Comms O2C Impl Guide]: *(A/M) Page 6.1 – 6.5*

Once the products and services have been finalized based on the results of the trial, and are ready to be launched – the final revision of the products and services need to be pushed to the downstream operational systems. As mentioned above, the Oracle Product MDM PIP publishes the final product definitions to downstream systems such as Siebel CRM, Billing & Revenue Management (BRM) & E-Business Suite (EBS), and any updates to the product classes (less frequent) can be pulled into Order & Service Management (OSM).

Once accepted as a stable product offering, rollout and/or expanded of the product to subsequent customers is managed by the Operations Support & Readiness processes.**AM**

See Note: Here we are describing the process up until the point where products are published to the operational systems and handed over to the Operations Support & Readiness processes.

[**ATG Web Commerce Product Catalog Integration**] ***Page 14, 15, 16***

The Web Commerce application imports the Siebel Product catalog to provide the web channel with the tools to maximize performance and offer better control. The Product Catalog import comprises of Catalogs, Categories, Products, Bundles, Attributes, Product Classes, Pricelists and discounts.

4.5.1.8   Level 3: 1.2.1.5.8 - Manage Product Exit [Not assessed]

4.5.1.9   Assessment Notes

For the Level 3's within Level 2 Product & Offer Development & Retirement 1.2.1.5, the Conformance Level granted is based on the conformance result granted in the ORACLE RODOD Solution Conformance Assessment. For further details, please see the ORACLE RODOD Conformance Certification Results.

Generic notes that have been referenced within the assessment document have been provided here:

Note 1: *This part of the eTOM process description does not represent a direct process requirement, however this text has been provided as further information to contextualise the overall support for the level 3 process in question.*

Note 2: *This part of the eTOM process description refers to another L3 process area so is not part of the scope of this specific L3 process. This text has been provided as further explanation regarding how this maps to the related L3 process area.*

Note 3*: This part of the eTOM process description refers to another eTOM process that is not covered by the scope of this certification.*

4.5.1.10   Supporting Evidence References (Works Cited)

[RODOD Whitepaper]   Rapid Offer and Order Delivery – An Oracle White paper

[P-MDM Integration Impl Guide]   Oracle Product Master Data Management Integration – Implementation Guide 11.2

[*Comms O2C Impl Guide*]   Oracle Communications Order to Cash Integration Pack Implementation Guide for Siebel CRM, Oracle Order and Service Management, and Oracle Billing and Revenue Management 11.3

[Siebel Marketing User Guide]   Siebel Marketing User Guide

[*ATG Web Commerce Product Catalog Integration*] *ATG-Siebel Product Data Integration IG*

4.5.1.11 *Level 2: 1.2.1.5 - Product & Offer Development & Retirement - Scores*

Table 4.91 - Level 2: 1.2.1.5 - Product & Offer Development & Retirement - Scores

Level 2: 1.2.1.5 - Product & Offer Development & Retirement		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.2.1.5.1 - Gather & Analyze New Product Ideas		0
1.2.1.5.2 - Assess Performance of Existing Products		0
1.2.1.5.3 - Develop New Product Business Proposal		0
1.2.1.5.4 - Develop Product Commercialization Strategy		0
1.2.1.5.5 - Develop Detailed Product Specifications		0
1.2.1.5.6 - Manage Product Development		0
1.2.1.5.7 - Launch New Products		**5**
1.2.1.5.8 - Manage Product Exit		0

4.6   Level 1: 1.2.2 - Service Development & Management

4.6.1   Level 2: 1.2.2.3 - Service Development & Retirement

4.6.1.1   *Level 3: 1.2.2.3.1 - Gather & Analyze New Service Ideas*

Table 4.92 – Level 3: 1.2.2.3.1 Gather & Analyze New Service Ideas

LEVEL 3 PROCESS MAPPING DETAILS
1.2.2.3.1 Gather & Analyze New Service Ideas

Brief Description

Combine specific product requirements with demographic, customer, technology and marketing information to identify specific new service classes/components or enhancements to existing service classes/components. **AM**

Extended Description

The Gather & Analyze New Service Ideas processes combine specific product requirements with demographic, customer, technology and marketing information to identify specific new service classes/components or enhancements to existing service classes/components. These processes undertake the necessary analysis to identify potential service classes, compare current service classes with the identified required service classes, and as a result of the analysis develop new service class ideas. The new service class ideas include an analysis of the customer value proposition. **AM**

While additional components outside of RSDOD may be required, all data is available for a complete view of the service information from the RSDOD applications: OSM, UIM & Activation (ASAP & IPSA).

[UIM_Concepts] Chapter 1, Section: About the UIM Information Model, pp16-22.

Order Data for the Services & Resources is in OSM.

[OSM_Concepts] Chapter 2, Section: About Modeling Order Data, 2-4, pp28-37.

Actions for a Resource associated with a Service are in Activation including domain, vendor or network specific network service & resource modeling:

[ASAP_Concepts] Chapter 2, Section: Cartridge Content, p21.

[IPSA_Concepts] Chapter 1, Section: Service Modules, p10.

 RSDOD may be optionally integrated with Oracle's Communications Data Model (OCDM) to gather the information and ensure it is aligned to the SID (see **[OCDM Certification]**).

UIM is a rich source of service & resource information which is accessible through manual queries or automated reporting.

[UIM_OnlineHelp] Chapter 1, Section: Searching for Entities, p18.

[UIM_SampleReports] Section 3.1.1.1 Report Descriptions, p6.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.6.1.2 *Level 3: 1.2.2.3.2 - Assess Performance of Existing Services [Not assessed]*

4.6.1.3 *Level 3: 1.2.2.3.3 - Develop New Service Business Proposal [Not assessed]*

4.6.1.4 *Level 3: 1.2.2.3.4 - Develop Detailed Service Specifications*

Table 4.93 – Level 3: 1.2.2.3.4 Develop Detailed Service Specifications

LEVEL 3 PROCESS MAPPING DETAILS
1.2.2.3.4 Develop Detailed Service Specifications

Brief Description

Develop and document the detailed service-related technical and operational specifications, and customer manuals. **AM**

Extended Description

The Develop Detailed Service Specifications processes develop and document the detailed service-related technical and operational specifications, and customer manuals.

Design Studio is the core application within RSDOD, as well as other Oracle solutions, for developing the detailed service technical specifications.

[DS_Concepts] Chapter 1, Section: The Design Studio Role in Business Solutions, p9.

These processes develop and document the required service features, the specific underpinning resource requirements and selections, the specific operational, and quality requirements and support activities, any service specific data required for the systems and network infrastructure as agreed through the Develop New Service Business Proposal processes. The Develop Detailed Product Specifications processes provide input to these specifications.

Design Studio models the detailed service as a composition of underpinning resources and associates these systems and network infrastructure to the specific service. When you use Design Studio, you create order specifications for the types of orders your business uses. You also create specifications for each of the elements in an order model; for example, order item specifications, and order component specifications. You also use Design Studio to define how OSM fulfills orders. For example, you design the way orders are recognized, how they are composed, the processes and data required to complete them, and how to manage fallout. You create projects to contain the order specifications that you develop. When a project is complete, you use Design Studio to build a cartridge that is deployed into OSM.

[OSM_DevGuide] Chapter 3, Section About Implementing OSM, pp29-30.

Within RSDOD the operational specifications and service specific data, including quality and support service specifications are created & documented in Design Studio projects and deployed to UIM as cartridges. The specifications may include:

■ Entity specifications

■ Data elements tagged as characteristics

■ Units of measure and measurement types

■ Capacity provided, capacity required, and capacity type specifications

■ Entity identification specifications

■ Rule sets

■ Extension points and enabled extension points

■ Rule set extension points and global rule set extension points

■ Sequence specifications

Note that UIM is commonly complimented in this role by optional Oracle solutions including Network Intelligence & Network Integrity, and which are outside the scope of RSDOD.

[**UIM_Concepts**] **Chapter 3, Section: About Design Studio, p29.**

The service technical specifications are documented within a design studio project and deployed as cartridges to specific applications.

[**DS_Concepts**] **Chapter 3, Section: About Projects, p23.**

[**DS_Concepts**] **Chapter 3, Section: Working with Cartridge Projects, p25.**

<mark>The processes ensure that all detailed specifications are produced and appropriately documented. Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository.</mark> **AM**

Within RSDOD, many processes are common and well documented in the applications in the form of Administrative Guides, User Interface Guides including Online Help. Here is a partial list of the customer manuals provided with RSDOD:

- Order & Service Management Web Client User Interface [**OSM_OMWebClient**]
- Order & Service Management Administrative Guide [**OSM_Admin**]
- Order & Service Management Task Web Client Guide [**OSM_TaskWebClient**]
- Unified Inventory Management Online Help [**UIM_OnlineHelp**]

For manuals or documentations are that are specific to a service, Design Studio provides a cartridge guide generation feature that simplifies the documentation process. The feature becomes available whenever you create a network cartridge project. Design Studio provides a template for the guide, and generates most of the cartridge documentation with information added to entities modeled in the project and the information entered in various editors during development process.

[**ASAP_Cartridge**] **Chapter 14, Section: About Design Studio Cartridge Documentation, pp169-170.**

To ensure the processes & specifications are complete, a set of automated tools are provided to guide users through the development, specification and configuration processes.

[DS_Concepts] Chapter 4, Section: Working with Design Patterns, p31.

By exporting the projects, versions & history may be archived in an enterprise repository as well as a facilitating multi-team & multi-site development.

[DS_PlatformHelp] Chapter 2, Section: Exporting Projects, p14.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.6.1.5 *Level 3: 1.2.2.3.5 - Manage Service Development*

Table 4.94 – Level 3: 1.2.2.3.5 Manage Service Development

LEVEL 3 PROCESS MAPPING DETAILS
1.2.2.3.5 Manage Service Development

Brief Description

Ensure the co-coordinated development in line with the approved business case of all required new or enhanced service classes/components for that business case across the enterprise. A

Extended Description

The Manage Service Development processes ensure the co-coordinated development in line with the approved business case of all required new or enhanced service classes/components for that business case across the enterprise. These processes ensure that all operational processes and procedures, IT systems changes, network changes, channel changes, operational procedures, testing tools and procedures, etc. required to support the new service class/component are identified and developed. These processes ensure that the necessary documentation and training packages are produced to support the operation of the new service class. These processes also ensure that the required service level agreements and operational level agreements to support the detailed service specifications are developed and agreed for each service class deployed, and that any supplier/partner operational support has been identified and agreed. These processes have both program/project management aspects and technical/operational specification aspects, with the detailed management of individual service class deployment managed by the Manage Service Deployment processes.

As well as developing new service classes these processes manage upgrades or enhancements to existing service classes, as the need to review operational and other support is also relevant for upgrading existing classes/components.

Note that management of major new or enhanced infrastructure delivery to support service development is managed within the Service Capability Delivery process. **AM**

LEVEL 4 PROCESS MAPPING DETAILS
1.2.2.3.5.1 Identify Required Processes & Procedures

Brief Description

These processes ensure that all operational processes and procedures, resource changes (e.g. network and/or IT resources), operational procedures, testing tools and procedures, etc. required to support the new resource class/component are identified. **M**

Working with the technical service specifications from earlier processes, we define the processes & procedures from Design Studio. All procedures & processes can be identified and described as a set of tasks & processes in OSM using Design Studio.

[OSM_DevGuide] Chapter 3, Section About Implementing OSM, pp29-30.

Extended Description

Not used for this process element.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.96 – Level 4: 1.2.2.3.5.2 Develop Required Processes & Procedures

LEVEL 4 PROCESS MAPPING DETAILS
1.2.2.3.5.2 Develop Required Processes & Procedures

Brief Description

These processes ensure that all operational processes and procedures, resource changes (e.g. network and/or IT resources), operational procedures, testing tools and procedures, etc. required to support the new resource class/component are developed. **AM**

Design Studio allows you to develop the OSM processes & procedures based on the technical service specifications and the identified processes & procedures, which are modeled as tasks & processes within OSM.

[OSM_Concepts] **Chapter 5: About Tasks & Processes, pp153-182.**

From Design Studio you model & develop tasks & processes for OSM, illustrated in the following figure from Design Studio:

[OSM_Concepts] **Chapter 5, Section: Understanding Processes, pp173-182.**

Furthermore, Design Studio enables the automated generation of many common fulfillment processes using Design Patterns & Guided Tasks.

[DS_Concepts] **Chapter 4, Section: Working with Design Patterns, p31.**

[DS_Concepts] **Chapter 4, Section: Working with Guided Assistance, pp31-32.**

Extended Description

Not used for this process element.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.97 – Level 4: 1.2.2.3.5.3 Product Documentation and Training Packages

LEVEL 4 PROCESS MAPPING DETAILS
1.2.2.3.5.3 Product Documentation and Training Packages

Brief Description

<mark>These processes ensure that the necessary documentation and training packages are produced to support the operation of the new resource class.</mark> **M**

Within the RSDOD solution, complete product documentation is provided for the day-to-day use & administration of the solution. For example to manage orders using OSM:

[**OSM_OMWebClient**] – **Document.**

While complete training packages are not developed or managed from Design Studio, it does provide facilities to support training of end-users using Guided Tasks & Cheats for Design-Time activities.

[**DS_Concepts**] **Chapter 4, Section: Working with Guided Assistance, pp31-32.**

[**DS_Concepts**] **Chapter 4, Section: About Cheat Sheets, p32.**

Within the applications, Online Help may be used to support training of end-users. For example, here is a version of the UIM Online Help:

[**UIM_OnlineHelp**] – **Document.**

Extended Description

Not used for this process element.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Table 4.98 – Level 4: 1.2.2.3.5.4 Develop Service & Operational Agreements

LEVEL 4 PROCESS MAPPING DETAILS
1.2.2.3.5.4 Develop Service & Operational Agreements

Brief Description

These processes ensure that the required service level agreements and operational level agreements are developed and agreed for each resource class deployed, and that any supplier/partner operational support has been identified. **M**

In automated fulfillment, service & operational agreements are defined by the interface & connectivity to the resources. Often these are Web Services which would be defined by a WSDL provided from the provisioning interface of the resource. These interfaces are developed from Design Studio using Activation cartridges and effectively define the operational activities that can be executed on supplier/partner or resource classes.

[DS_Concepts] Chapter 1, Section: About Design Studio for Activation, p11.

Characteristics of these automated operational agreements may include:

- Primary & Auxiliary Connections
- Thresholds & Retries
- Throttling

[ASAP_Concepts] Chapter 4, Section: Connection Management, pp32-33.

In manual fulfillment tasks, these service & operational agreements are defined by the user-interfaces, the privileges and the scope of tasks that can be assigned during the fulfillment. While the RSDOD solution does not limit or define external systems, it can control who is assigned a task and the operational activities required, including interactions with supplier/partner systems and resources.

[OSM_Concepts] Chapter 5, Section: Controlling Who Can Process a Task, p164.

Extended Description

Not used for this process element.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

LEVEL 4 PROCESS MAPPING DETAILS
1.2.2.3.5.5 Gain Service & Operational Agreements Approval

Brief Description

These processes ensure that the required service level agreements and operational level agreements are developed and agreed for each resource class deployed, and that any supplier/partner operational support has been agreed.

The content of this L4 is a duplicate of 1.2.2.3.5.4 and does not elaborate any further process requirement not already met in the previous L4.

Extended Description

Not used for this process element.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.6.1.6 *Level 3: 1.2.2.3.6 - Manage Service Deployment*

Table 4.100 – Level 3: 1.2.2.3.6 Manage Service Deployment

LEVEL 3 PROCESS MAPPING DETAILS
1.2.2.3.6 Manage Service Deployment

Brief Description

Ensure the co-coordinated deployment in line with the approved business proposal of all required service classes/components for that business proposal across the enterprise. **AM**

Extended Description

The Manage Service Deployment processes ensure the co-coordinated deployment in line with the approved business case of all required service classes/components for that business case across the enterprise.

RSDOD provides both manual & automated development to create automated fulfillment processes. Once projects to create services are completed within Design Studio they are deployed to the applications for runtime implementation. This assumes that the implementation has been tested in a design, test or pre-production environment prior to production implementation.

[DS_Concepts] Chapter 5, Section: About the Cartridge Management Tools Utility, p44.

These processes ensure that all operational processes and procedures, IT systems changes, network changes, channel changes, operational procedures, testing tools and procedures, etc. required to support the new service class/component have been implemented.

OSM allows for Acceptance Testing of the RSDOD components prior to full product acceptance testing. By issuing test orders to the RSDOD solution, all specifications, and all supplier/partner interfaces can be validated.

[DS_ModelOsmProc] Chapter 12, Section: Testing OSM Cartridge Models, p230.

These processes ensure that appropriate operational staff are identified and have received the necessary training. These processes ensure that the agreed supplier/partner operational support has been implemented.

Manual fulfillment tasks implement service & operational agreements which are defined by the user-interfaces, the privileges and the scope of tasks that can be assigned during the fulfillment. While the RSDOD solution does not limit or define external systems, it can control who is assigned a task and identifies operational staff and the operational activities required, including interactions with supplier/partner systems and services.

[OSM_Concepts] Chapter 5, Section: Controlling Who Can Process a Task, p164.

Within the applications and within the context of tasks & processes, Online Help may be used to support training of end-users. For example, here is a version of the UIM Online Help:

[UIM_OnlineHelp] – Document.

These processes also ensure that acceptance testing is successfully performed to assure that the new or enhanced services comply with the specifications. These processes have both program/project and management aspects. **AM**

Note that the Acceptance testing of RSDOD in a full production system cannot be done in isolation and is typically done with a solution like Oracle's RODOD to originate and submit fulfillment orders.

The service class updated technical specifications are documented within a design studio project and deployed as cartridges to specific applications.

[DS_Concepts] Chapter 3, Section: About Projects, p23.

[DS_Concepts] Chapter 3, Section: Working with Cartridge Projects, p25.

By exporting the projects, versions & history may be archived in an enterprise repository as well as facilitating multi-team & multi-site development.

[DS_PlatformHelp] Chapter 2, Section: Exporting Projects, p14.

4.6.1.7 *Level 3: 1.2.2.3.7 - Manage Service Exit*

Table 4.101 – Level 3: 1.2.2.3.7 Manage Service Exit

LEVEL 3 PROCESS MAPPING DETAILS
1.2.2.3.7 Manage Service Exit

Brief Description

Identify existing service which are unviable and manage the processes to exit the Service Class from the market. **AM**

Extended Description

The Manage Service Exit processes identify existing service classes which are unviable and manage the process to exit the Service from the products they support. The processes analyze existing service classes to identify economically or strategically unviable classes, identify products & customers impacted by any exit, develop product & customer specific exit or migration strategies, develop service infrastructure transition and/or replacement strategies, and manage the operational aspects of the exit process.

UIM is used to identify service classes that are economically or strategically unviable. This can be accomplished by analyzing services in UIM that are no longer provided or the technology (resources) that enables these services has changed – see "Managing Resource Exit" 1.2.3.3.7. For example: if video is no longer delivered via cable and replaced by IPTV the cable service configuration can be analyzed for resources that are no longer required.

[UIM_Concepts] **Chapter 6, Section: About Services and Service Configurations, pp84-85.**

Entities in your inventory are used by other entities in various ways, For example, a handset can be assigned to a VoIP service or a telephone number can be reserved for use by a customer starting next week. UIM provides a search framework that enables you to find entities based on a wide variety of criteria that depend on the entity type. You can combine criteria for an even more specific search.

[UIM_Concepts] **Chapter 5, Section: About Search, p57.**

A business proposal identifying the competitive threats, risks and costs may be required as a part of developing the exit strategy. These processes include any cross-enterprise co-ordination and management functions to ensure that the needs of all stakeholders are identified and managed. **AM**

Many entities in UIM are involved with each other because of the way the inventory is modeled. For example, a service configuration can include configuration items for one or more places or resources, and a logical device can provide one or more device interfaces.

[UIM_Concepts] **Chapter 5, Section: About Involvements, first paragraph, p71.**

In UIM, customers are defined using the Party entity. Each service has an assigned Party. To support

the Identify Impacted Service Customers a query can be executed to identify the Parties that are assigned to the relevant service.

You define Party specifications to model the people or organizations that interact with your inventory. Party specifications answer the business question of who is involved in your inventory.

[**UIM_Concepts**] **Chapter 12, Section: About Parties, p190.**

Note that UIM does not generate any type of business process, but supports the analysis of such a proposal. UIM provides a search framework that enables you to find entities based on a wide variety of criteria that depend on the entity type. You can combine criteria for an even more specific search.

[**UIM_Concepts**] **Chapter 5, Section: About Search, p57.**

In UIM a service such as video may be enabled by multiple technologies and in some cases, a technology may need to be exited. In UIM a Service Configuration tracks versions of facts about a service such as which resources are being consumed by a service at a particular time. Transitioning from one technology to another can be managed and tracked by changing from one service configuration to another. Moving from one service configuration to another can be done manually by a user of UIM or automated through plug-ins. The exited service configuration specification can be retired so it is no longer available for use in UIM. This is accomplished by populating an end date on the specification.

[**UIM_Concepts**] **Chapter 6, Section: About Services and Service Configurations, pp84-87.**

UIM provides additional functionality for transitioning from one technology to another in the form of Business Interactions.

Business interactions make it possible for you to plan UIM actions and then execute those actions at a time of your choosing. Each business interaction can include a variety of actions such as fulfilling services, adding entities, changing entity hierarchies, and so on. The changes resulting from these actions are called business interaction items.

A business interaction can represent an arrangement such as service fulfillment, a capital project, a customer work order, a maintenance request, or any other activity that you want to plan in advance. When you complete a business interaction, all of its items are executed and the results become available throughout the application.

[**UIM_Concepts**] **Chapter 12, Section: About Business Interactions, p171.**

The entire process of exiting technologies or migrating from one technology to another can be managed using workflows in OSM. Any exit or migration process can be managed by OSM by building specific tasks and processes within OSM using Design Studio.

A task is a specific activity that must be carried out to complete the order. Tasks can be manual or automated. Manual tasks must be processed by an order manager, using the Task Web client. Automated tasks run automatically with no manual intervention.

A process is a sequence of tasks. A process includes tasks, sub processes, the sequence in which tasks are run, and ways to control how the tasks are run; such as rules and delays. Processes allow

you to break down the work required to execute and fulfill an order into functional tasks, which can be distributed to various systems and people to be completed in a controlled manner.

[OSM_Concepts] Chapter 5, Section: About Tasks and Processes, p153.

When the resources that are to be exited are identified and migrated in the previous level 4 processes, a resource exit is managed in UIM by removing the ability for the resource to be consumed by a service configuration. The resource specification being removed it is put in an end of life state and is no longer available when creating new services.

[UIM_Concepts] Chapter 5, Section: About Configurations, p59.

The process of exiting technologies can be managed using workflows in OSM. Any exit process can be managed by OSM by building specific tasks and processes within OSM using Design Studio.

A task is a specific activity that must be carried out to complete the order. Tasks can be manual or automated. Manual tasks must be processed by an order manager, using the Task Web client. Automated tasks run automatically with no manual intervention.

A process is a sequence of tasks. A process includes tasks, sub processes, the sequence in which tasks are run, and ways to control how the tasks are run; such as rules and delays. Processes allow you to break down the work required to execute and fulfill an order into functional tasks, which can be distributed to various systems and people to be completed in a controlled manner.

[OSM_Concepts] Chapter 5, Section: About Tasks and Processes, p153.

4.6.1.8 *Supporting Evidence References (Works Cited)*

[ASAP_Cartridge]   Oracle Communications ASAP Cartridge Development Guide Release 7.2.

This guide provides guidance and best practices for creating an Oracle Communications ASAP cartridge using Oracle Communications Design Studio for Activation.

[ASAP_Concepts]   Oracle Communications ASAP Concepts Guide Release 7.2.

This guide provides an overview of Oracle Communications ASAP, explains its functional architecture, and describes the working of various ASAP components.

[DS_Concepts]   Oracle Communications Design Studio Concepts Release 7.2.2.

This guide provides a conceptual understanding of Oracle Communications Design Studio, and includes concepts related to solution design for Oracle Communications products, and to Design Studio as an integrated design environment.

[DS_InventoryOH]   Oracle Communications Design Studio Modeling Inventory 7.2.2

This document explains how to use Oracle Communications Design Studio to model inventory used in UIM.

[DS_ModelOsmProc]   Oracle Communications Design Studio Modeling OSM Processes Release 7.2.2.

This guide provides information about modeling data for Oracle Communications Order and Service Management (OSM).

[DS_PlatformHelp]   Oracle Communications Design Studio Platform Help Release 7.2.2.

This document explains how to use Oracle Communications Design Studio.

[IPSA_Concepts]   Oracle Communications IP Service Activator Concepts Version 7.2.

This guide provides an outline of the key features and benefits of Oracle Communications IP Service Activator, an overview of the distributed architecture, an explanation of the basic concepts of VPN services, policy-based services, and of the capabilities extended by the Configuration Development Kit.

[OSM_Admin]   Oracle Communications Order and Service Management System Administrator's Guide Release 7.2.2.

This document describes Oracle Communications Order and Service Management (OSM) system administration tasks.

[OSM_Concepts]   Oracle Communications Order and Service Management Concepts Release 7.2.2.

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

[OSM_DevGuide]   Oracle Communications Order and Service Management Developer's Guide Release 7.2.2.

This document provides information about the customizable areas of Oracle Communications Order and Service Management (OSM) such as Web Services, Automation etc.

[OSM_OMWebClient]   Oracle Communications Order and Service Management Order Management Web Client User's Guide Release 7.2.2.

This document provides information about using the Oracle Order and Service Management (OSM) Order Management Web client.

[OSM_TaskWebClient] Oracle Communications Order and Service Management Task Web Client User's Guide Release 7.2.2.

This guide describes how to use the Oracle Communications Order and Service Management (OSM) Task Web client to manage orders.

[UIM_Concepts]   Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

[UIM_DevGuide]   Oracle Communications Unified Inventory Management Developers Guide 7.2.2.

This guide explains how to extend Oracle Communications Unified Inventory Management (UIM) through standard Java practices using Oracle Communications Design Studio, which is an Eclipse-based integrated development environment. This guide includes references to both applications, and often

directs the reader to see the Design Studio Help and the UIM Help for instructions on how to perform specific tasks.

[UIM_OnlineHelp]   Oracle Communications Unified Inventory Management Online Help Release 7.2.2.

This document explains how to use Oracle Communications Unified Inventory Management (UIM).

[UIM_SampleReports]   OBIEE Sample Reports for Oracle Communications Unified Inventory Management.

This document describes the technical details for the Oracle Business Intelligence Enterprise Edition (OBIEE) sample reports implementation. This is not a design specification, but instead provides additional information intended to explain how to install, enhance or change the use cases implemented.

Note: This document is available to download by support paying Customers from My Oracle Support.

4.6.1.9 *Level 2: 1.2.2.3 - Service Development & Retirement - Scores*

Level 2: 1.2.2.3 - Service Development & Retirement		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.2.2.3.1 - Gather & Analyze New Service Ideas		**5**
1.2.2.3.2 - Assess Performance of Existing Services		**0**
1.2.2.3.3 - Develop New Service Business Proposal		**0**
1.2.2.3.4 - Develop Detailed Service Specifications		**5**
	1.2.2.3.4.1 - Develop Detailed Service Technical Specifications	100%
	1.2.2.3.4.2 - Develop Detailed Service Support Specifications	100%
	1.2.2.3.4.3 - Develop Detailed Service Operational Specifications	100%
	1.2.2.3.4.4 - Develop Detailed Service Customer Manuals	100%
1.2.2.3.5 - Manage Service Development		**5**
	1.2.2.3.5.1 - Identify Required Processes & Procedures	100%
	1.2.2.3.5.2 - Develop Required Processes & Procedures	100%
	1.2.2.3.5.3 - Product Documentation and Training Packages	100%
	1.2.2.3.5.4 - Develop Service & Operational Agreements	100%
	*1.2.2.3.5.5 - Gain Service & Operational Agreements Approval	NA
1.2.2.3.6 - Manage Service Deployment		**5**
	1.2.2.3.6.1 - Manage Service Process & Procedure Implementation	100%
	1.2.2.3.6.2 - Manage Service Operational Staff Training	100%
	1.2.2.3.6.3 - Develop Service Supplier/Partner Operational Support	100%
	1.2.2.3.6.4 - Manage Service Acceptance Testing	100%
1.2.2.3.7 - Manage Service Exit		**5**
TM Forum Note: Process 1.2.2.3.5.5 is not considered developed and was not deemed required in this assessment.		

4.7 Level 1: 1.2.3 - Resource Development & Management

4.7.1 Level 2: 1.2.3.3 - Resource Development & Retirement

4.7.1.1 *Level 3: 1.2.3.3.1 - Gather & Analyze New Resource Ideas*

Table 4.102 – Level 3: 1.2.3.3.1 Gather & Analyze New Resource Ideas

LEVEL 3 PROCESS MAPPING DETAILS
1.2.3.3.1 Gather & Analyze New Resource Ideas

Brief Description

Combine specific product & service class requirements with demographic, customer, technology and marketing information to identify specific new resource classes/components, or enhancements to existing resource classes/components. **AM**

Extended Description

The Gather & Analyze New Resource Ideas processes combine specific product & service class requirements with demographic, customer, technology and marketing information to identify specific new resource classes/components, or enhancements to existing resource classes/components. These processes undertake the necessary analysis to identify potential resource classes, compare current resource classes with the identified required resource classes, and as a result of the analysis develop new resource class ideas. **AM**

While additional components outside of RSDOD may be required, all data is available for a complete view of the resource information from the RSDOD applications: OSM, UIM & Activation (ASAP & IPSA).

Service & Resource Information is in UIM.

[UIM_Concepts] Chapter 1, Section: About the UIM Information Model, pp16-22.

Order Data for the Services & Resources is in OSM.

[OSM_Concepts] Chapter 2, Section: About Modeling Order Data, 2-4, pp28-37.

Actions for a Resource associated with a Service are in Activation including domain, vendor or network specific network service & resource modeling:

[ASAP_Concepts] Chapter 2, Section: Cartridge Content, p21.

[IPSA_Concepts] Chapter 1, Section: Service Modules, p10.

RSDOD may be optionally integrated with Oracle's Communications Data Model (OCDM) to gather the information and ensure it is aligned to the SID (see **[OCDM Certification]**).

UIM is a rich source of service & resource information which is accessible through manual queries or automated reporting.

[UIM_OnlineHelp] Chapter 1, Section: Searching for Entities, p18.

[UIM_Sample_Reports] Section 3.1.1.1 Report Descriptions, p6.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.7.1.2 *Level 3: 1.2.3.3.2 - Assess Performance of Existing Resources [Not assessed]*

4.7.1.3 *Level 3: 1.2.3.3.3 - Develop New Resource Business Proposal [Not assessed]*

4.7.1.4 *Level 3: 1.2.3.3.4 - Develop Detailed Resource Specifications*

Table 4.103 – Level 3: 1.2.3.3.4 Develop Detailed Resource Specifications

LEVEL 3 PROCESS MAPPING DETAILS
1.2.3.3.4 Develop Detailed Resource Specifications

Brief Description

Develop and document the detailed resource-related technical, performance and operational specifications, and manuals. **AM**

Extended Description

The Develop Detailed Resource Specifications processes develop and document the detailed resource-related technical, performance and operational specifications, and manuals.

Required resource features for the systems and network infrastructure for the RSDOD solution are managed in Oracle Communications Unified Inventory Management (UIM). These entities in UIM are enabled through the use of specifications. These specifications are created and managed in Design Studio.

Design Studio is the core application within RSDOD, as well as other Oracle solutions, for developing the detailed resource technical specifications.

[DS_Concepts] Chapter 1, Section: The Design Studio Role in Business Solutions, p9.

These processes develop and document the required resource features, the specific technology requirements and selections, the specific operational, performance and quality requirements and support activities, any resource specific data required for the systems and network infrastructure. The Develop Detailed Service Specifications processes provide input to these specifications.

The resource technical specifications are documented within a design studio project and deployed as cartridges to specific applications.

[DS_Concepts] Chapter 3, Section: About Projects, p23.

[DS_Concepts] Chapter 3, Section: Working with Cartridge Projects, p25.

A specification is a blueprint that determines the information that you store about a particular group of entities within an entity type. For example, you can define Logical Device specifications for Cisco 2811 routers and Juniper M7i routers.

You define specifications and characteristics in Design Studio. After you have defined specifications and characteristics in Design Studio, you deploy them into UIM, where you use them to create entities. You can also view specifications and characteristics in UIM in read-only mode.

[UIM_Concepts] Chapter 1, Section: About Specifications, Data Elements, and Characteristics, p20.

The resource specifications are created in Design Studio and documented/managed as part of the technical catalog. The relationship graph in UIM documents and displays the data element and specification relationships. Specific technology requirements are achieved through the use of specifications. For example, an Ethernet Network might be realized in UIM by creating Ethernet Network and Ethernet Network Node specifications.

Within RSDOD the operational specifications and resource specific data, including quality and support specifications are created & documented in Design Studio projects and deployed to UIM as cartridges. The specifications may include:

- Entity specifications
- Data elements tagged as characteristics
- Units of measure and measurement types
- Capacity provided, capacity required, and capacity type specifications
- Entity identification specifications
- Rule sets
- Extension points and enabled extension points
- Rule set extension points and global rule set extension points
- Sequence specifications

Note that UIM is commonly complimented in this role by optional Oracle solutions including Network Intelligence & Network Integrity, and which are outside the scope of RSDOD.

[UIM_Concepts] Chapter 3, Section: About Design Studio, p29.

The processes ensure that all detailed specifications are produced and appropriately documented. Additionally the processes ensure that the documentation is captured in an appropriate enterprise repository. **AM**

To ensure the processes & specifications are complete, a set of automated tools are provided to guide users through the development, specification and configuration processes.

[DS_Concepts] Chapter 4, Section: Working with Design Patterns, p31.

By exporting the projects, versions & history may be archived in an enterprise repository as well as facilitating multi-team & multi-site development.

[DS_PlatformHelp] Chapter 2, Section: Exporting Projects, p14.

Within RSDOD, many processes are common and well documented in the applications in the form of Administrative Guides, User Interface Guides including Online Help.   Here is a partial list of the customer manuals provided with RSDOD:

- OSM Order Management Web Client User's Guide **[OSM_OMWebClient]**
- OSM System Administrator's Guide **[OSM_Admin]**
- OSM Task Web Client User's Guide **[OSM_TaskWebClient]**
- Unified Inventory Management Online Help **[UIM_OnlineHelp]**

For manuals or documentation that are specific to a resource, Design Studio provides a cartridge

guide generation feature that simplifies the documentation process. The feature becomes available whenever you create a network cartridge project. Design Studio provides a template for the guide, and generates most of the cartridge documentation with information added to entities modeled in the project and the information entered in various editors during development process.

[ASAP_Cartridge] Chapter 14, Section: About Design Studio Cartridge Documentation, pp169-170.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.7.1.5   *Level 3: 1.2.3.3.5 - Manage Resource Development*

Table 4.104 – Level 3: 1.2.3.3.5 Manage Resource Development

LEVEL 3 PROCESS MAPPING DETAILS
1.2.3.3.5 Manage Resource Development

Brief Description

Ensure the co-coordinated delivery in line with the approved business case of all required resource classes/components capabilities for that business case across the enterprise. **AM**

Extended Description

The Manage Resource Development processes ensure the co-coordinated development in line with the approved business case of all required resource classes/components for that business case across the enterprise. **AM**

Working with the technical service specifications from earlier processes, we define the processes & procedures from Design Studio. All procedures & processes can be identified and described as a set of tasks & processes in OSM using Design Studio. These procedures & processes may be created & defined through automated design patterns.

[**OSM_DevGuide**] **Chapter 3, Section About Implementing OSM, pp29-30.**

[**DS_Concepts**] **Chapter 4, Section: Working with Design Patterns, p31.**

These processes ensure that all operational processes and procedures, resource changes (e.g. network and/or IT resources), operational procedures, testing tools and procedures, etc. required to support the new resource class/component are identified and developed. **AM**

Design Studio allows you to develop the OSM processes & procedures based on the technical resource specifications and the identified processes & procedures, which are modeled as tasks & processes within OSM.

[**OSM_Concepts**] **Chapter 5, Section: About Tasks & Processes, pp153-154.**

From Design Studio you model & develop tasks & processes for OSM, illustrated in the following figure from Design Studio:
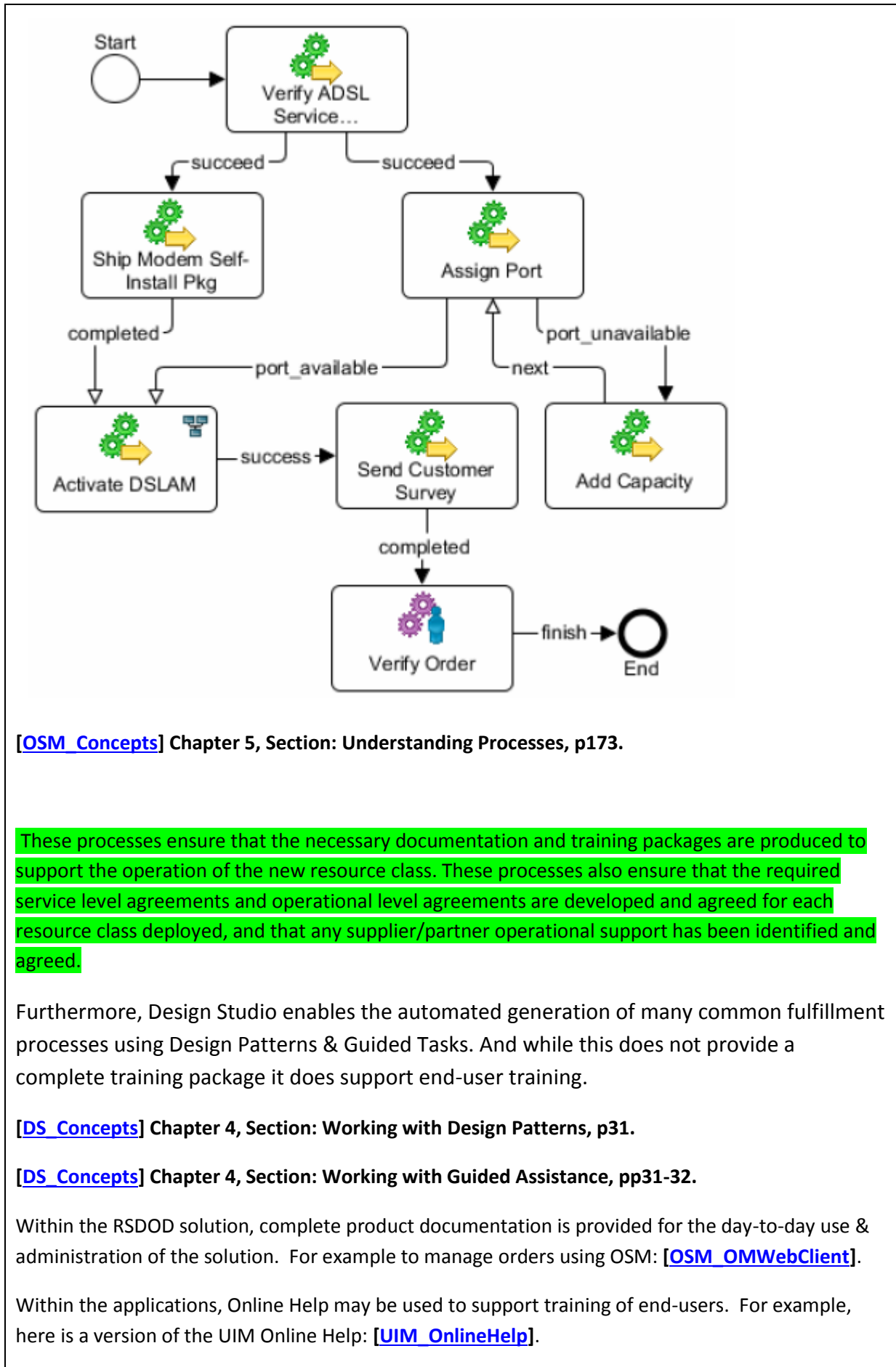
[OSM_Concepts] Chapter 5, Section: Understanding Processes, p173.

These processes ensure that the necessary documentation and training packages are produced to support the operation of the new resource class. These processes also ensure that the required service level agreements and operational level agreements are developed and agreed for each resource class deployed, and that any supplier/partner operational support has been identified and agreed.

Furthermore, Design Studio enables the automated generation of many common fulfillment processes using Design Patterns & Guided Tasks. And while this does not provide a complete training package it does support end-user training.

[DS_Concepts] Chapter 4, Section: Working with Design Patterns, p31.

[DS_Concepts] Chapter 4, Section: Working with Guided Assistance, pp31-32.

Within the RSDOD solution, complete product documentation is provided for the day-to-day use & administration of the solution. For example to manage orders using OSM: **[OSM_OMWebClient]**.

Within the applications, Online Help may be used to support training of end-users. For example, here is a version of the UIM Online Help: **[UIM_OnlineHelp]**.

==These processes have both program/project management aspects and technical/operational specification aspects, with the detailed management of individual resource class deployment managed by the Manage Resource Deployment processes.==**AM**

In automated fulfillment, service & operational agreements are defined by the interface & connectivity to the resources. Often these are Web Services which would be defined by a WSDL provided from the provisioning interface of the resource. These interfaces are developed from Design Studio using Activation cartridges and effectively define the operational activities that can be executed on supplier/partner or resource classes.

[DS_Concepts] Chapter 1, Section: About Design Studio for Activation, p11.

Characteristics of these automated operational agreements may include:

- Primary & Auxiliary Connections
- Thresholds & Retries
- Throttling

[ASAP_Concepts] Chapter 4, Section: Connection Management, pp32-33.

In manual fulfillment tasks, these service & operational agreements are defined by the user-interfaces, the privileges and the scope of tasks that can be assigned during the fulfillment. While the RSDOD solution does not limit or define external systems, it can control who is assigned a task and the operational activities required, including interactions with supplier/partner systems and resources.

[OSM_Concepts] Chapter 5, Section: Controlling Who Can Process a Task, p164.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.7.1.6 *Level 3: 1.2.3.3.6 - Manage Resource Deployment*

Table 4.105 – Level 3: 1.2.3.3.6 Manage Resource Deployment

LEVEL 3 PROCESS MAPPING DETAILS
1.2.3.3.6 Manage Resource Deployment

Brief Description

Ensure the co-coordinated deployment in line with the approved business proposal of all required resource classes/components for that business proposal across the enterprise.

Extended Description

The Manage Resource Deployment processes ensure the co-coordinated deployment in line with the approved business case of all required resource classes/components for that business case across the enterprise. These processes ensure that all operational processes and procedures, resource changes (e.g. network and/or IT resources), operational procedures, testing tools and procedures, etc. required to support the new resource class/component have been implemented. These processes ensure that appropriate operational staff are identified and have received the necessary training. **AM**

RSDOD provides both manual & automated development to create automated fulfillment processes. Once projects to create and manage resources are completed within Design Studio they are deployed to the applications for runtime implementation. This assumes that the implementation has been tested in a design, test or pre-production environment prior to production implementation.

[DS_Concepts] Chapter 5, Section: About the Cartridge Management Tools Utility, p44.

These processes ensure that the agreed supplier/partner operational support has been implemented. These processes also ensure that acceptance testing is successfully performed to assure that the new or enhanced resources comply with the specifications. **M**

OSM allows for Acceptance Testing of the RSDOD components prior to full product acceptance testing. By issuing test orders to the RSDOD solution, all specifications, and all supplier/partner interfaces can be validated.

[DS_ModelOsmProc] Chapter 12, Section: Testing OSM Cartridge Models, p230.

These processes have both program/project and management aspects. **AM**

Note that the Acceptance testing of RSDOD in a full production system cannot be done in isolation and is typically done with a solution like Oracle's RODOD to originate and submit fulfillment orders.

The resource updated technical specifications are documented within a design studio project and deployed as cartridges to specific applications.

[DS_Concepts] Chapter 3, Section: About Projects, p23.

[DS_Concepts] Chapter 3, Section: Working with Cartridge Projects, p25.

By exporting the projects, versions & history may be archived in an enterprise repository as well as facilitating multi-team & multi-site development.

[DS_PlatformHelp] Chapter 2, Section: Exporting Projects, p14.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use**.**

4.7.1.7 *Level 3: 1.2.3.3.7 - Manage Resource Exit*

Table 4.106 – Level 3: 1.2.3.3.7 Manage Resource Exit

LEVEL 3 PROCESS MAPPING DETAILS
1.2.3.3.7 Manage Resource Exit

Brief Description

Identify existing resource classes which are unviable and manage the processes to exit the Resource from the market.

Extended Description

The Manage Resource Exit processes identify existing resource classes which are unviable and manage the process to exit the Resource from the services they support. The processes analyze existing resource classes to identify economically or strategically unviable classes, identify products, services classes & customers impacted by any exit, develop specific exit or migration strategies, develop resource infrastructure transition and/or replacement strategies, and manage the operational aspects of the exit process. **AM**

UIM is used to identify resource classes that are economically or strategically unviable. This can be accomplished by analyzing services in UIM that are no longer provided or the technology that enables these services has changed. For example: if video is no longer delivered via cable and replaced by IPTV the cable service configuration can be analyzed for resources that are no longer required.

[**UIM_Concepts**] **Chapter 6, Section: About Services and Service Configurations, pp84-85.**

In addition UIM provides functionality such as Capacity Management, Consumption and Involvement that allows the user to search for resources that are being under-utilized.

In UIM, capacity refers to the amount and type of something that entities require or provide. UIM provides a capacity framework that enables you to define, measure, and track the usage of capacity.

[**UIM_Concepts**] **Chapter 5, Section: About Capacity, first paragraph, p61.**

Entities in your inventory are used by other entities in various ways, For example, a handset can be assigned to a VoIP service or a telephone number can be reserved for use by a customer starting next week.

In UIM, the consumption framework is the mechanism by which you manage how entities use each other. There are several forms of consumption, including assignment, reservation, and conditions.

[**UIM_Concepts**] **Chapter 5, Section: About Consumption, first two paragraphs, p66.**

UIM provides a search framework that enables you to find entities based on a wide variety of criteria that depend on the entity type. You can combine criteria for an even more specific search.

[**UIM_Concepts**] **Chapter 5, Section: About Search, p57.**

A business proposal identifying the competitive threats, risks and costs may be required as a part of developing the exit strategy. These processes include any cross-enterprise co-ordination and management functions to ensure that the needs of all stakeholders are identified and managed. **AM**

Many entities in UIM are involved with each other because of the way the inventory is modeled. For example, a service configuration can include configuration items for one or more places or resources, and a logical device can provide one or more device interfaces.

[UIM_Concepts] **Chapter 5, Section: About Involvements, first paragraph, p71.**

In UIM, customers are defined using the Party entity. Each service has an assigned Party. To support the Identify Impacted Service Customers a query can be executed to identify the Parties that are assigned to the relevant service.

You define Party specifications to model the people or organizations that interact with your inventory. Party specifications answer the business question of who is involved in your inventory.

[UIM_Concepts] **Chapter 12, Section: About Parties, p190.**

Note that UIM does not generate any type of business process, but supports the analysis of such a proposal. UIM provides a search framework that enables you to find entities based on a wide variety of criteria that depend on the entity type. You can combine criteria for an even more specific search.

[UIM_Concepts] **Chapter 5, Section: About Search, p57.**

In UIM a service such as video may be enabled by multiple technologies and in some cases, a technology may need to be exited. In UIM a Service Configuration tracks versions of facts about a service such as which resources are being consumed by a service at a particular time. Transitioning from one technology to another can be managed and tracked by changing from one service configuration to another. Moving from one service configuration to another can be done manually by a user of UIM or automated through plug-ins. The exited service configuration specification can be retired so it is no longer available for use in UIM. This is accomplished by populating an end date on the specification.

[UIM_Concepts] **Chapter 6, Section: About Services and Service Configurations, pp85-87.**

UIM provides additional functionality for transitioning from one technology to another in the form of Business Interactions.

Business interactions make it possible for you to plan UIM actions and then execute those actions at a time of your choosing. Each business interaction can include a variety of actions such as fulfilling services, adding entities, changing entity hierarchies, and so on. The changes resulting from these actions are called business interaction items.

A business interaction can represent an arrangement such as service fulfillment, a capital project, a customer work order, a maintenance request, or any other activity that you want to plan in advance. When you complete a business interaction, all of its items are executed and the results become available throughout the application.

[UIM_Concepts] Chapter 12, Section: About Business Interactions, p171.

The entire process of exiting technologies or migrating from one technology to another can be managed using workflows in OSM. Any exit or migration process can be managed by OSM by building specific tasks and processes within OSM using Design Studio.

A task is a specific activity that must be carried out to complete the order. Tasks can be manual or automated. Manual tasks must be processed by an order manager, using the Task Web client. Automated tasks run automatically with no manual intervention.

A process is a sequence of tasks. A process includes tasks, sub processes, the sequence in which tasks are run, and ways to control how the tasks are run; such as rules and delays. Processes allow you to break down the work required to execute and fulfill an order into functional tasks, which can be distributed to various systems and people to be completed in a controlled manner.

[OSM_Concepts] Chapter 5, Section: About Tasks and Processes, p153.

When the resources that are to be exited are identified and migrated in the previous level 4 processes, a resource exit is managed in UIM by removing the ability for the resource to be consumed by a service configuration. The resource specification being removed it is put in an end of life state and is no longer available when creating new services.

[UIM_Concepts] Chapter 5, Section: About Configurations, p59.

The process of exiting technologies can be managed using workflows in OSM. Any exit process can be managed by OSM by building specific tasks and processes within OSM using Design Studio.

A task is a specific activity that must be carried out to complete the order. Tasks can be manual or automated. Manual tasks must be processed by an order manager, using the Task Web client. Automated tasks run automatically with no manual intervention.

A process is a sequence of tasks. A process includes tasks, sub processes, the sequence in which tasks are run, and ways to control how the tasks are run; such as rules and delays. Processes allow you to break down the work required to execute and fulfill an order into functional tasks, which can be distributed to various systems and people to be completed in a controlled manner.

[OSM_Concepts] Chapter 5, Section: About Tasks and Processes, p153.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.7.1.8 *Supporting Evidence References (Works Cited)*

[ASAP_Cartridge]   Oracle Communications ASAP Cartridge Development Guide Release 7.2.

This guide provides guidance and best practices for creating an Oracle Communications ASAP cartridge using Oracle Communications Design Studio for Activation.

[ASAP_Concepts]   Oracle Communications ASAP Concepts Guide Release 7.2.

This guide provides an overview of Oracle Communications ASAP, explains its functional architecture, and describes the working of various ASAP components.

[DS_Concepts]   Oracle Communications Design Studio Concepts Release 7.2.2.

This guide provides a conceptual understanding of Oracle Communications Design Studio, and includes concepts related to solution design for Oracle Communications products, and to Design Studio as an integrated design environment.

[DS_InventoryOH]   Oracle Communications Design Studio Modeling Inventory 7.2.2

This document explains how to use Oracle Communications Design Studio to model inventory used in UIM.

[DS_ModelOsmProc]   Oracle Communications Design Studio Modeling OSM Processes Release 7.2.2.

This guide provides information about modeling data for Oracle Communications Order and Service Management (OSM).

[DS_PlatformHelp]   Oracle Communications Design Studio Platform Help Release 7.2.2.

This document explains how to use Oracle Communications Design Studio.

[IPSA_Concepts]   Oracle Communications IP Service Activator Concepts Version 7.2.

This guide provides an outline of the key features and benefits of Oracle Communications IP Service Activator, an overview of the distributed architecture, an explanation of the basic concepts of VPN services, policy-based services, and of the capabilities extended by the Configuration Development Kit.

[**OSM_Admin**]   Oracle Communications Order and Service Management System Administrator's Guide Release 7.2.2.

This document describes Oracle Communications Order and Service Management (OSM) system administration tasks.

[**OSM_Concepts**]   Oracle Communications Order and Service Management Concepts Release 7.2.2.

This guide provides conceptual information about Oracle Communications Order and Service Management (OSM).

[**OSM_DevGuide**]   Oracle Communications Order and Service Management Developer's Guide Release 7.2.2.

This document provides information about the customizable areas of Oracle Communications Order and Service Management (OSM) such as Web Services, Automation etc.

[**OSM_OMWebClient**]   Oracle Communications Order and Service Management Order Management Web Client User's Guide Release 7.2.2.

This document provides information about using the Oracle Order and Service Management (OSM) Order Management Web client.

[**OSM_TaskWebClient**] Oracle Communications Order and Service Management Task Web Client User's Guide Release 7.2.2.

This guide describes how to use the Oracle Communications Order and Service Management (OSM) Task Web client to manage orders.

[**UIM_Concepts**]   Oracle Communications Unified Inventory Management Concepts Release 7.2.2.

This guide explains how to use Oracle Communications Unified Inventory Management (UIM) to manage your telecommunications inventory.

[**UIM_DevGuide**]   Oracle Communications Unified Inventory Management Developers Guide 7.2.2.

This guide explains how to extend Oracle Communications Unified Inventory Management (UIM) through standard Java practices using Oracle Communications Design Studio, which is an Eclipse-based integrated development environment. This guide includes references to both applications, and often

directs the reader to see the Design Studio Help and the UIM Help for instructions on how to perform specific tasks.

[**UIM_OnlineHelp**]   Oracle Communications Unified Inventory Management Online Help Release 7.2.2.

This document explains how to use Oracle Communications Unified Inventory Management (UIM).

[**UIM_SampleReports**]   OBIEE Sample Reports for Oracle Communications Unified Inventory Management.

This document describes the technical details for the Oracle Business Intelligence Enterprise Edition (OBIEE) sample reports implementation. This is not a design specification, but instead provides additional information intended to explain how to install, enhance or change the use cases implemented.

Note: This document is available to download by support paying Customers from My Oracle Support.

4.7.1.9   *Level 2: 1.2.3.3 - Resource Development & Retirement - Scores*

Table 4.107 – Level 2: 1.2.3.3 - Resource Development & Retirement - Scores

Level 2: 1.2.3.3 - Resource Development & Retirement		
Level 3 Process	**Level 4 Process**	**L4/L3 Process Score**
1.2.3.3.1 - Gather & Analyze New Resource Ideas		**5**
1.2.3.3.2 - Assess Performance of Existing Resources		**0**
1.2.3.3.3 - Develop New Resource Business Proposal		**0**
1.2.3.3.4 - Develop Detailed Resource Specifications		**5**
	1.2.3.3.4.1 - Develop Detailed Resource Technical Specifications	100%
	1.2.3.3.4.2 - Develop Detailed Resource Support Specifications	100%
	1.2.3.3.4.3 - Develop Detailed Resource Operational Specifications	100%
	1.2.3.3.4.4 - Develop Detailed Resource Manuals	100%
*1.2.3.3.5 - Manage Resource Development		**5**
	1.2.3.3.5.1 - Identify Required Processes & Procedures	100%
	1.2.3.3.5.2 - Develop Required Processes & Procedures	100%
	1.2.3.3.5.3 - Develop Service & Operational Agreements	100%
	1.2.3.3.5.4 - Gain Service & Operational Agreements Approval	100%
	1.2.3.3.5.5 - Product Documentation & Training Packages	100%
1.2.3.3.6 - Manage Resource Deployment		**5**
	1.2.3.3.6.1 - Manage Resource Process & Procedure Implementation	100%
	1.2.3.3.6.2 - Manage Resource Operational Staff Training	100%
	1.2.3.3.6.3 - Develop Resource Supplier/Partner Operational Support	100%
	1.2.3.3.6 .4 - Manage Resource Acceptance Testing	100%
1.2.3.3.7 - Manage Resource Exit		**5**
	1.2.3.3.7.1 - Identify Unviable Services	100%
	1.2.3.3.7.2 - Identify Impacted Service Customers	100%
	1.2.3.3.7.3 - Develop Service Transition Strategies	100%
	1.2.3.3.7.4 - Manage Service Exit Process	100%
*TM Forum Note: Due to numbering anomalies in Frameworx 12 documentation, the Level 4 process identifiers and descriptions are based on Frameworx 12.5 definitions.		

5 Information Framework Assessment Overview

Not applicable for this Assessment.

6 Frameworx Conformance Result

This section details the Scores awarded to reflect Conformance of the Oracle RSDOD Solution to the Business Process Framework & Information Framework components of Frameworx 12.

6.1 Business Process Framework – Scoring Rules

The conformance scores granted were based on the following TM Forum scoring rules:

Table 6.1 - TM Forum Business Process Framework: Conformance Scoring Rules

Frameworx 12.0 Conformance Certification (Product/Solution/Implementation)		
Business Process Framework (eTOM) - Conformance Level Descriptions (Level 3 processes)		
Process level	**Conformance Score**	**Qualifier**
Level 1	**Not applicable**	Conformance Assessment shall not be carried out at this process level - hence Confomance Level shall not be awarded at this level.
Level 2	**Not applicable**	A conformance level is not awarded to Level 2 processes in Frameworx 12.0 Assessments. The Certification Report shall highlight the coverage of a Level 2 process submitted in scope for an Assessment in terms of number of Level 3 processes submitted for assessment out of the total number defined for the Level 2 process.
Level 3	**Score is awarded between 3.1 & 5.**	The Conformance Score is awarded for each Level 3 processes submitted in scope for the Assessment. The Conformance Score awarded can be a value between 3.1 & 5 depending on the level of coverage & conformance to the Level 3 process based on the alignment to the level 3 Implied Tasks as decomposed in the Level 4 process definitions. *Any manual implementation of the process support shall be noted in the Conformance Report and Detailed Results Report.*

6.2   Business Process Framework - Conformance Result Summary

The graphs in this section provide an overview of the conformance levels granted to the Level 3 Processes presented in scope for the Oracle RSDOD Solution Assessment. Each Level 3 process was measured using a Business Process Framework (eTOM) conformance score according to level of Conformance – Full Conformance or Partial Conformance as described in section 6.1 Business Process Framework – Scoring Rules.
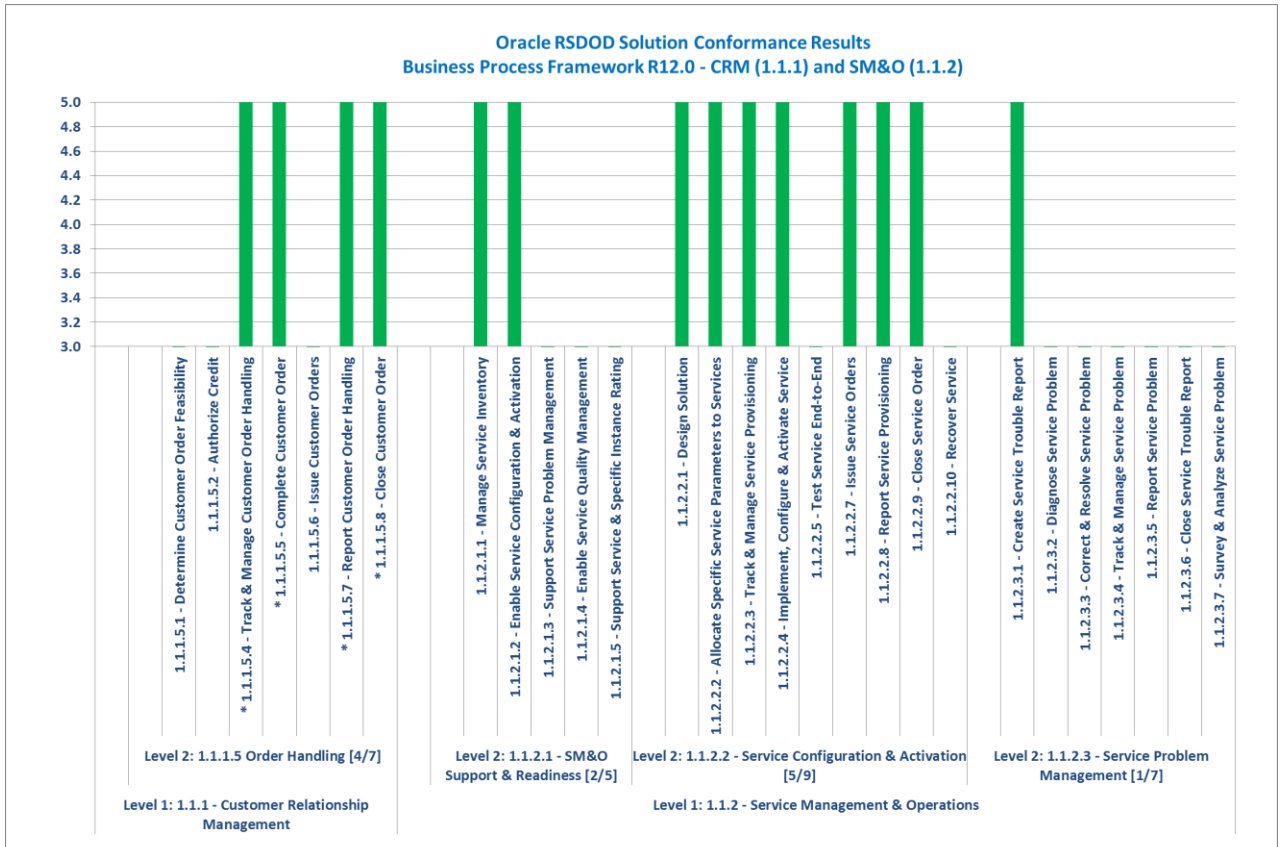
* The Conformance Level granted is based on the conformance result granted in the ORACLE RODOD Solution Conformance Assessment. For further details, please see the ORACLE RODOD Conformance Certification Results.

Figure 6.1 - Conformance Summary: CRM and SM&O
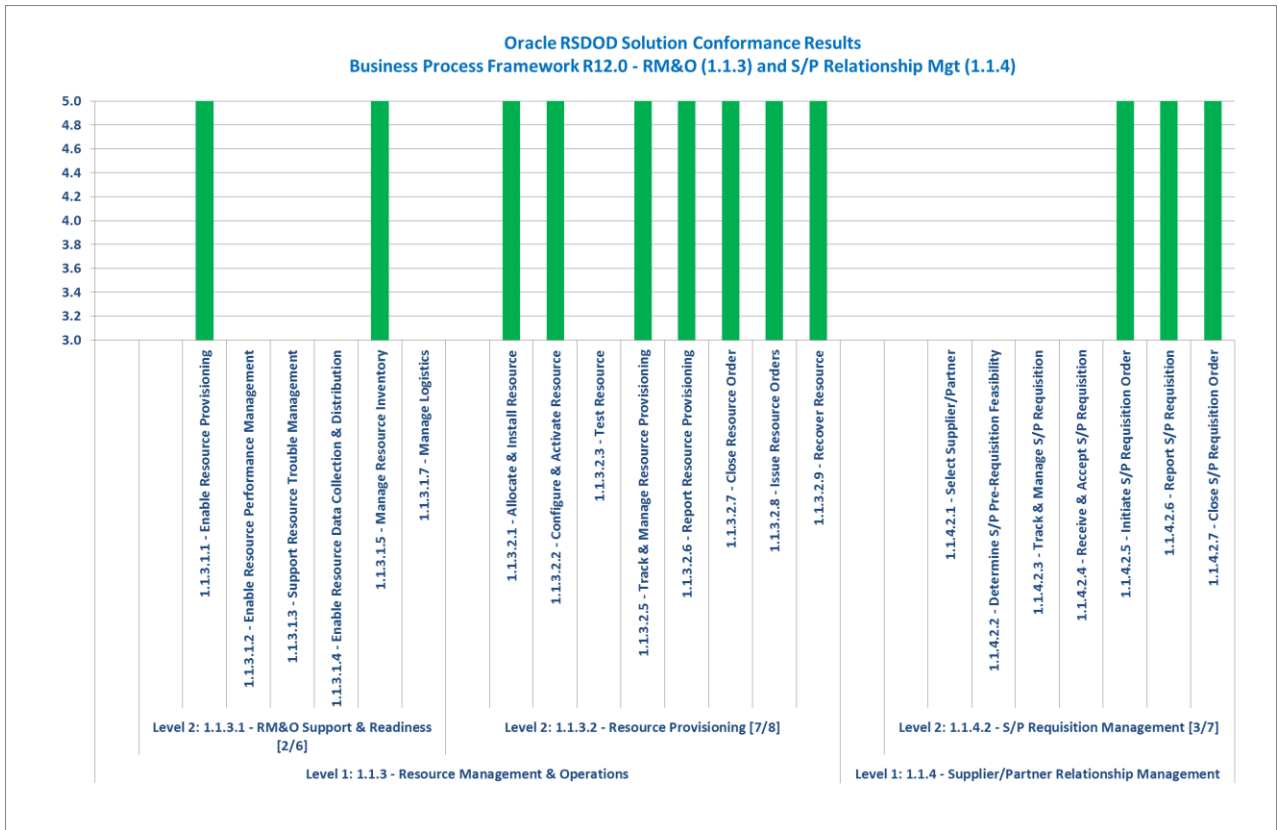
Figure 6.2 – Conformance Summary: RM&O and S/P Relationship Management

Oracle RSDOD Solution Conformance Results
Business Process Framework R12.0
Marketing & Offer Mgt (1.2.1), Service Development & Mgt (1.2.2) and Resource Development & Mgt (1.2.3))
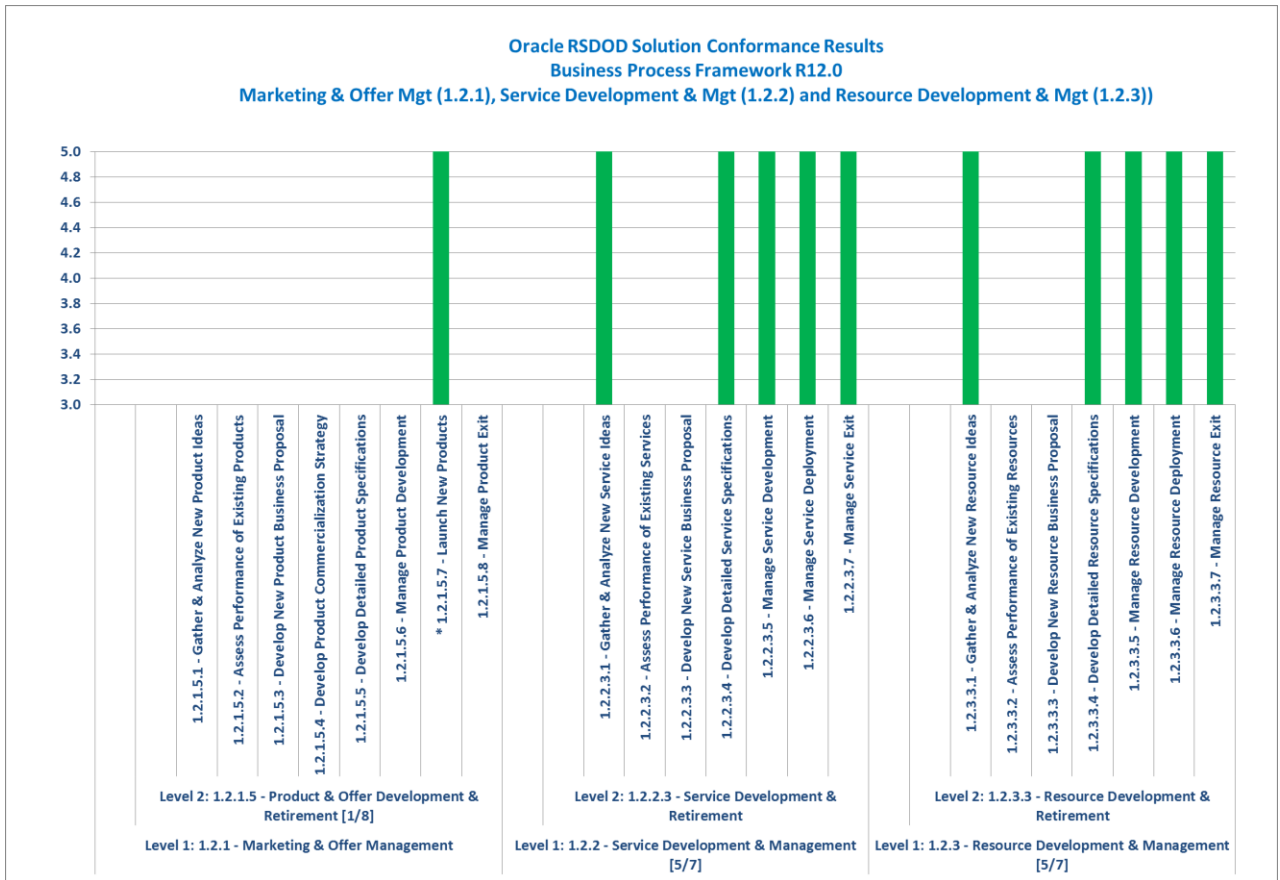
Figure 6.3 – Conformance Summary: Marketing & Offer Mgt and Service/Resource Development & Mgt

6.3   Business Process Framework – Conformance Results Detailed

The following table provides a more detailed breakdown of the scores awarded with some additional commentary.

Table 6.2 - Business Process Framework: Detailed Conformance Result

Oracle RSDOD Solution Business Process Framework (eTOM) Release 12.0 Conformance		
Business Process Framework Process	**Conformance Score [scope coverage]**	**Comments**
Level 1: 1.1.1 - Customer Relationship Management	**N/A**	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.1.1.5 Order Handling	**[4/7]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.1.5.1 - Determine Customer Order Feasibility	**0**	**Process was not submitted for Assessment.**
1.1.1.5.2 - Authorize Credit	**0**	**Process was not submitted for Assessment.**
1.1.1.5.4 - Track & Manage Customer Order Handling	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.5.5 - Complete Customer Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.5.6 - Issue Customer Orders	**0**	**Process was not submitted for Assessment.**
1.1.1.5.7 - Report Customer Order Handling	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).

1.1.1.5.8 - Close Customer Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
Level 1: 1.1.2 - Service Management & Operations	**N/A**	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.1.2.1 - SM&O Support & Readiness	**[2/5]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.2.1.1 - Manage Service Inventory	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.1.2 - Enable Service Configuration & Activation	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.1.3 - Support Service Problem Management	0	**Process was not submitted for Assessment.**
1.1.2.1.4 - Enable Service Quality Management	0	**Process was not submitted for Assessment.**
1.1.2.1.5 - Support Service & Specific Instance Rating	0	**Process was not submitted for Assessment.**
Level 2: 1.1.2.2 - Service Configuration & Activation	**[7/9]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.2.2.1 - Design Solution	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).

1.1.2.2.2 - Allocate Specific Service Parameters to Services	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.3 - Track & Manage Service Provisioning	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.4 - Implement, Configure & Activate Service	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.5 - Test Service End-to-End	**0**	**Process was not submitted for Assessment.**
1.1.2.2.7 - Issue Service Orders	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.8 - Report Service Provisioning	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.9 - Close Service Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.2.10 - Recover Service	**0**	**Process was not submitted for Assessment.**

Level 2: 1.1.2.3 - Service Problem Management	[1/7]	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.2.3.1 - Create Service Trouble Report	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.2.3.2 - Diagnose Service Problem	0	Process was not submitted for Assessment.
1.1.2.3.3 - Correct & Resolve Service Problem	0	Process was not submitted for Assessment.
1.1.2.3.4 - Track & Manage Service Problem	0	Process was not submitted for Assessment.
1.1.2.3.5 - Report Service Problem	0	Process was not submitted for Assessment.
1.1.2.3.6 - Close Service Trouble Report	0	Process was not submitted for Assessment.
1.1.2.3.7 - Survey & Analyze Service Problem	0	Process was not submitted for Assessment.
Level 1: 1.1.3 - Resource Management & Operations	**N/A**	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.1.3.1 - RM&O Support & Readiness	**[2/6]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.3.1.1 - Enable Resource Provisioning	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.1.2 - Enable Resource Performance Management	0	Process was not submitted for Assessment.
1.1.3.1.3 - Support Resource Trouble Management	0	Process was not submitted for Assessment.
1.1.3.1.4 - Enable Resource Data Collection & Distribution	0	Process was not submitted for Assessment.

1.1.3.1.5 - Manage Resource Inventory	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.1.7 - Manage Logistics	0	Process was not submitted for Assessment.
Level 2: 1.1.3.2 - Resource Provisioning	**[7/8]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.3.2.1 - Allocate & Install Resource	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.2 - Configure & Activate Resource	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.3 - Test Resource	0	Process was not submitted for Assessment.
1.1.3.2.5 - Track & Manage Resource Provisioning	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.6 - Report Resource Provisioning	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).

1.1.3.2.7 - Close Resource Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.8 - Issue Resource Orders	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.3.2.9 - Recover Resource	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
Level 1: 1.1.4 - Supplier/Partner Relationship Management	**N/A**	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.1.4.2 - S/P Requisition Management	**[3/7]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.1.4.2.1 - Select Supplier/Partner	**0**	**Process was not submitted for Assessment.**
1.1.4.2.2 - Determine S/P Pre-Requisition Feasibility	**0**	**Process was not submitted for Assessment.**
1.1.4.2.3 - Track & Manage S/P Requisition	**0**	**Process was not submitted for Assessment.**
1.1.4.2.4 - Receive & Accept S/P Requisition	**0**	**Process was not submitted for Assessment.**
1.1.4.2.5 - Initiate S/P Requisition Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).

1.1.4.2.6 - Report S/P Requisition	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.4.2.7 - Close S/P Requisition Order	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
Level 1: 1.2.1 - Marketing & Offer Management	**N/A**	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.2.1.5 - Product & Offer Development & Retirement	**[1/8]**	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.2.1.5.1 - Gather & Analyze New Product Ideas	**0**	**Process was not submitted for Assessment.**
1.2.1.5.2 - Assess Performance of Existing Products	**0**	**Process was not submitted for Assessment.**
1.2.1.5.3 - Develop New Product Business Proposal	**0**	**Process was not submitted for Assessment.**
1.2.1.5.4 - Develop Product Commercialization Strategy	**0**	**Process was not submitted for Assessment.**
1.2.1.5.5 - Develop Detailed Product Specifications	**0**	**Process was not submitted for Assessment.**
1.2.1.5.6 - Manage Product Development	**0**	**Process was not submitted for Assessment.**
1.2.1.5.7 - Launch New Products	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.1.5.8 - Manage Product Exit	**0**	**Process was not submitted for Assessment.**
Level 1: 1.2.2 - Service Development & Management	**N/A**	*Conformance Score not awarded for Level 1 processes.*

Level 2: 1.2.2.3 - Service Development & Retirement	[5/7]	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*
1.2.2.3.1 - Gather & Analyze New Service Ideas	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.2.3.2 - Assess Performance of Existing Services	**0**	**Process was not submitted for Assessment.**
1.2.2.3.3 - Develop New Service Business Proposal	**0**	**Process was not submitted for Assessment.**
1.2.2.3.4 - Develop Detailed Service Specifications	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.2.3.5 - Manage Service Development	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.2.3.6 - Manage Service Deployment	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.2.3.7 - Manage Service Exit	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
Level 1: 1.2.3 - Resource Development & Management	N/A	*Conformance Score not awarded for Level 1 processes.*
Level 2: 1.2.3.3 - Resource Development & Retirement	[5/7]	*Conformance Score not awarded for Level 2 processes.* *Only scope coverage indicated.*

1.2.3.3.1 - Gather & Analyze New Resource Ideas	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.2 - Assess Performance of Existing Resources	**0**	**Process was not submitted for Assessment.**
1.2.3.3.3 - Develop New Resource Business Proposal	**0**	**Process was not submitted for Assessment.**
1.2.3.3.4 - Develop Detailed Resource Specifications	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.5 - Manage Resource Development	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.6 - Manage Resource Deployment	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.2.3.3.7 - Manage Resource Exit	**5**	**Fully Conformant** Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).

6.4   Information Framework – Scoring Rules

Not applicable for this assessment.

6.5 Information Framework – Conformance Result Summary

Not applicable for this assessment.