

**Framework 11.5
Solution Conformance
Certification Report**

**IBM
Catalog-Driven Order Management Solution**

March 2012



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1 Introduction

1.1 Executive Summary

This document provides details of IBM’s self-assessment and TM Forum’s Conformance Assessment of **IBM’s Catalog-Driven Order Management Solution**, against the following Framework 11.5 components:

- Business Process Framework Version 9.0
- Information Framework Version 9.5

The assessment included a review of:

- The methodology approach to product modeling and Product Lifecycle Management (PLM) against the TM Forum’s Business Process Framework Release 9.0 according to the specific processes submitted in scope for the Assessment.
- Conformance to the Information Framework Release 9.0 Domains/Aggregate Business Entities according to the specific ABEs submitted in scope for the Assessment.



2 Solution Functionality/Capability Overview

2.1.1 IBM Catalog-Driven Order Management Solution – Solution Overview

IBM’s “catalog driven order management solution” allows communications service providers (CSPs) to efficiently manage the end to end order life cycle for complex product offerings, across lines-of-business (wireless, fixed line, cable, enterprise) and order-entry channels (web, call center, store, mobile, B2B and social networks). Based on the IBM service provider delivery environment (SPDE) framework, the solution allows CSPs to implement a set of standardized, product catalog-based eTOM aligned business processes for fulfillment.

The solution supports complex order orchestration, order decomposition, dependency management, TM Forum standards-based integration, human task management, jeopardy handling and automation of manually intensive activities. Combining Business Support Systems (BSS) and Operations Support Systems (OSS) with middleware that is based on TM Forum Framework allows the solution to be deployed flexibly into contexts where many legacy applications are retained and interworked with newer applications. The integration platform translates legacy interfaces to TM Framework based contracts and uses a SID-based data model to align disparate vendor approaches. IBM’s Catalog-Driven Order Management Solution helps CSPs achieve:

<i>Faster time to market</i>	Quickly introduce new products, services, devices and complex product bundles at a lower cost
<i>Multichannel support</i>	Support a growing range of channels and an expanding ecosystem
<i>Enhanced customer experience</i>	Streamline interaction across multiple channels and activate services more quickly
<i>Improved operational efficiency</i>	Minimize order errors and fallout, handle jeopardy situations, automate manually intensive or ad hoc processes and reduce cost per order
<i>Order visibility</i>	Accurately track orders with end-to-end visibility. Provide real-time alerts to customers and keep them aware of their order status
<i>Efficient integration with existing systems</i>	Make use of existing investments through loosely coupled and dynamic integration with present and growing OSS or BSS. Use Service oriented integration based on TM Forum standards.

Below, in Figure 2.1 IBM’s Catalog Driven Order Management Solution, the IBM BSS and OSS applications that are part of the solution are mapped to the corresponding TAM logical application names. The solution plugs into an existing OSS/BSS infrastructure, including heritage applications, providing service interfaces to connect to systems like back-end customer relationship management (CRM), billing, inventory and activation applications.

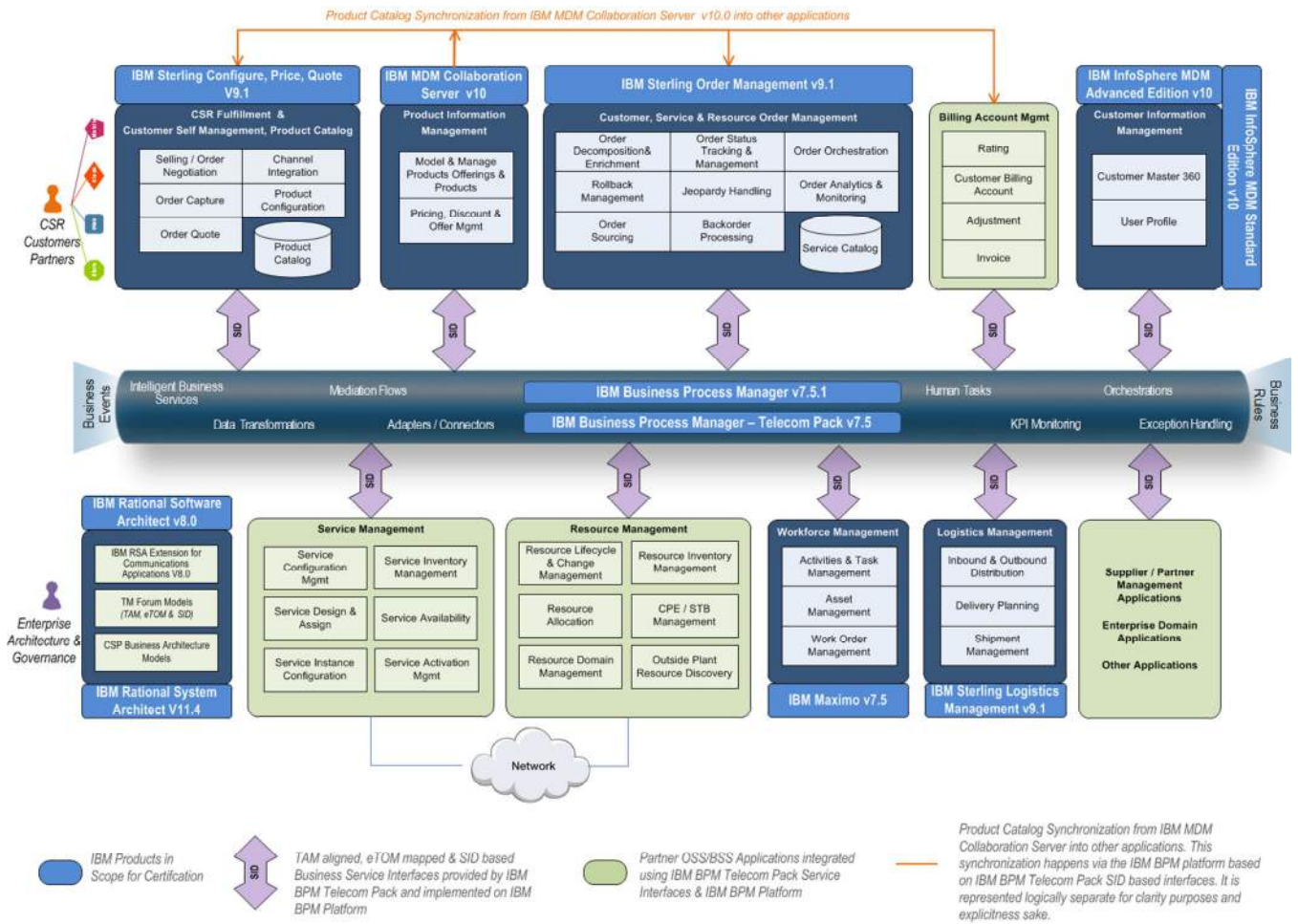


Figure 2.1 IBM's Catalog Driven Order Management Solution

The following IBM software products are used to realize the “catalog driven order management” solution and are in scope for the certification. The solution is flexible by design and can be implemented over multiple phases and can interwork with non-IBM products or systems that have already been deployed in the CSP’s environment.

CSR Fulfillment Customer Self- Management Product Catalog	IBM Sterling Configure, Price, Quote v9.1
Product Information Management	IBM InfoSphere MDM Collaborative Edition v10 (formerly MDM Server for PIM)
Customer, Service & Resource Order Management	IBM Sterling Order Management v9.1



Customer Information Management	IBM InfoSphere MDM Advanced Edition v10 (formerly MDM Server) IBM InfoSphere MDM Standard Edition v10 (formerly Initiate Master Data Service)
Logistics Management	IBM Sterling Logistics Management v9.1
Workforce Management	IBM Maximo v7.5
TM Forum based Integration Middleware	IBM Business Process Manager v7.5 IBM Business Process Manager – Telecom Pack v7.5

TM Forum Framework based Middleware

At the core of the solution are the IBM Business Process Manager (IBM BPM) and IBM Business Process Manager – Telecom Pack (Telecom Pack). The Telecom Pack allows dynamic and seamless integration with BSS and OSS applications and allows for the solution to expose coarse grained, loosely coupled and dynamic “Business Services” out of the BSS and OSS applications. These Business Services provide a well-defined and yet coarse grained business functions using SID bases messaging schemas and encapsulates the fine grained atomic service interfaces exposed by the OSS/BSS applications. The Telecom Pack enforces conformance with the SID on BSS and OSS application interfaces, even if the end application involved does not base its data models on the SID through these business services. The Telecom Pack provides 300+ business service interfaces that can be implemented using the capabilities provided by the IBM BPM middleware platform.

References & Further Reading

- Catalog-driven order management in communications - *Increasing agility with streamlined order management using industry standards* - [LINK](#)
- Dynamic BPM for Standards-Driven OSS/BSS Transformation - [LINK](#)
- Streamline order management with industry standards - [LINK](#)
- Customer Care Solutions for the Communications Industry - *Driving Business Value with Master Data Solutions* - [LINK](#)
- Achieving Global Customer Visibility - [LINK](#)
- Better manage your customers’ assets with IBM Maximo for Service Providers solutions - [LINK](#)
- Increase value of your brand experience with cross-channel commerce - [LINK](#)
- *Master Data Management Vision & Value: Part 1 Develop an MDM Vision (IBM ebook)* - [LINK](#)

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 eTOM 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 eTOM 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).

3.2 Business Process Framework - Level 2 Process Scope

Figure 3.1 and Figure 3.2 represent the Business Process Framework Level 2 processes (blue highlight) that were presented in scope for the assessment, and the textual callouts represent the components of the IBM Catalog-Driven Order Management Solution that were assessed and support the corresponding eTOM processes according to the results in Chapter 6 Framework Conformance.

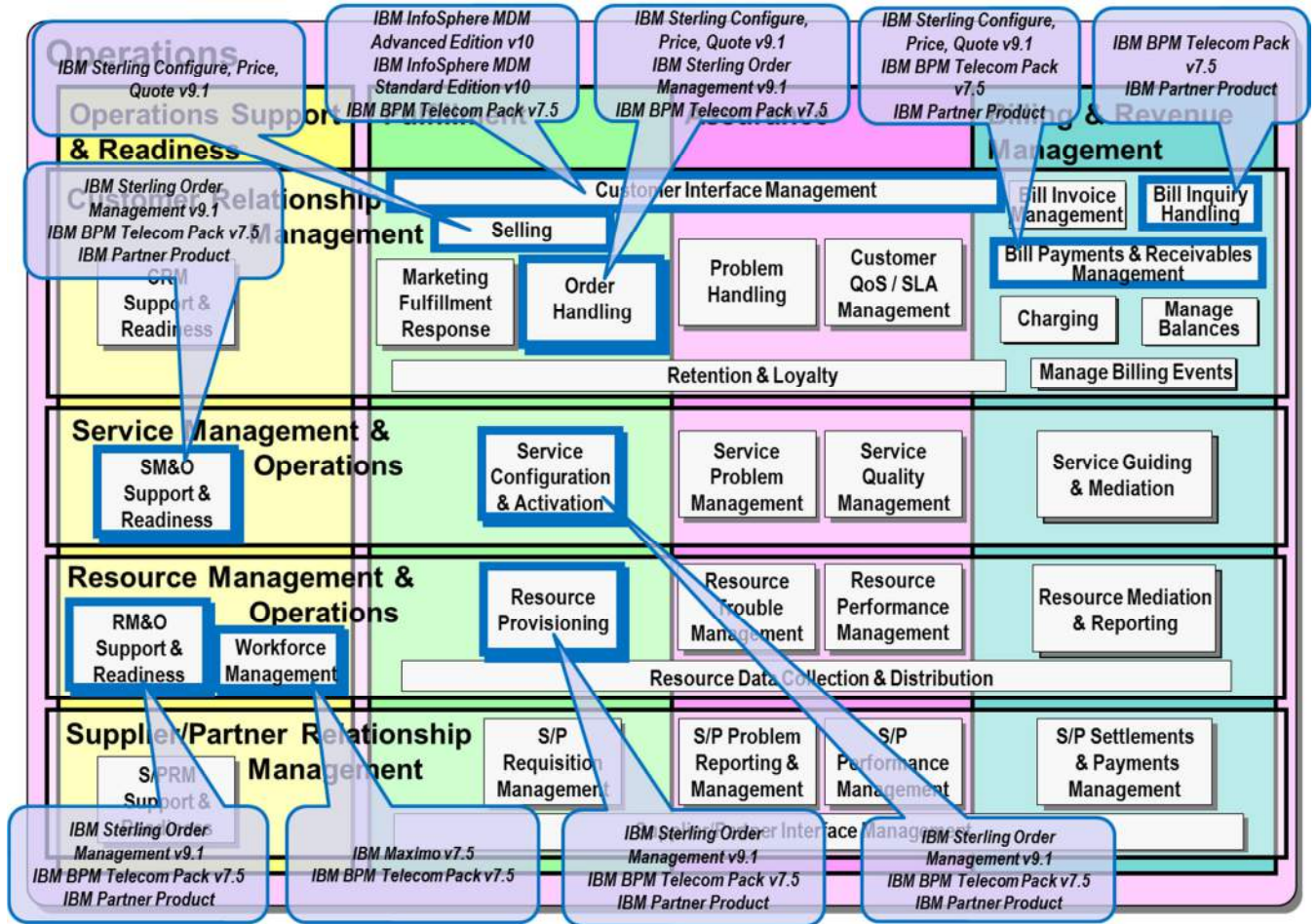


Figure 3.1 Business Process Framework Assessment Scope – Operations

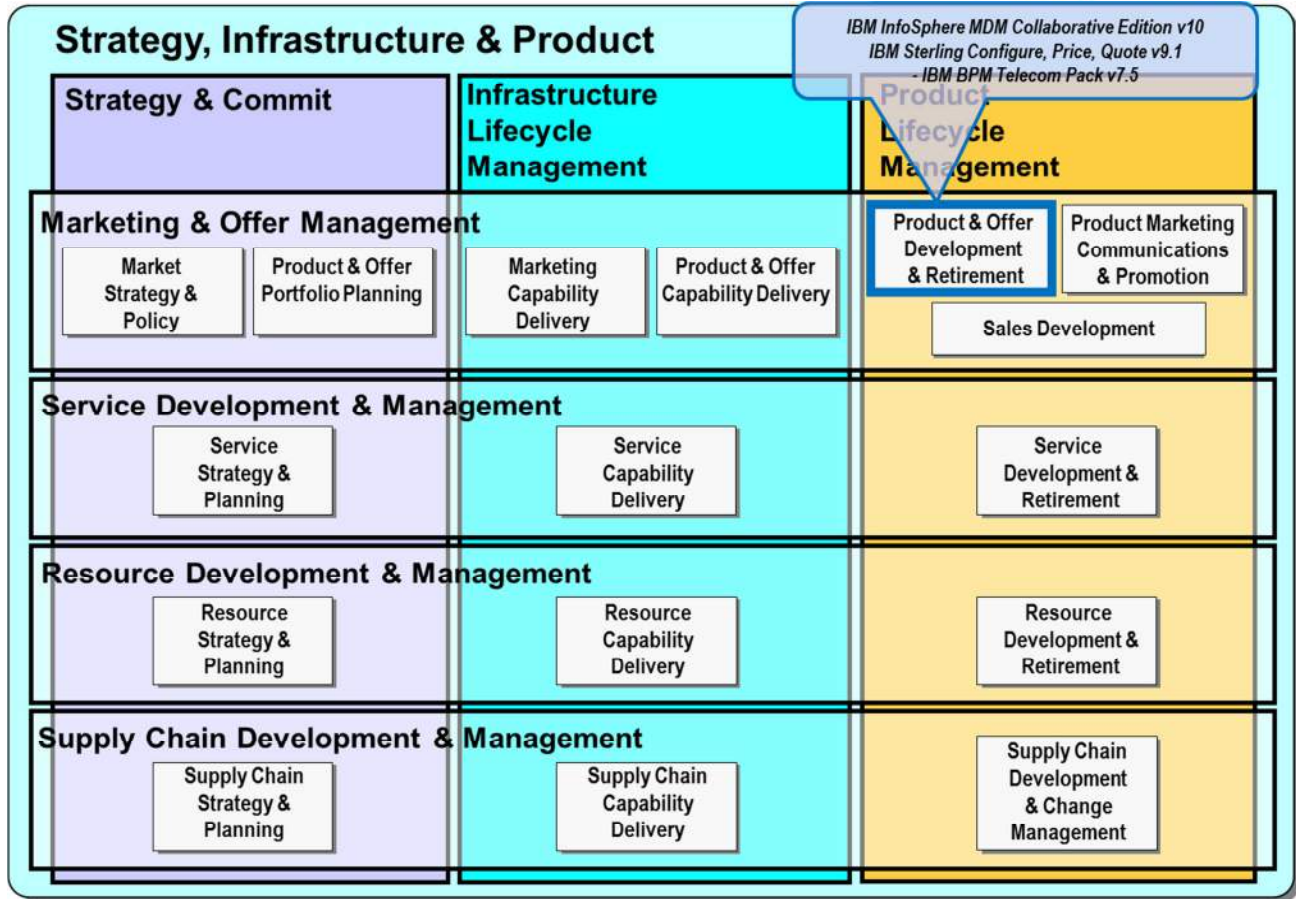


Figure 3.2 Business Process Framework Assessment Scope – Strategy, Infrastructure & Product

3.3 Solution Scope

Figure 3.3 represents the IBM Catalog-Driven Order Management Solution.

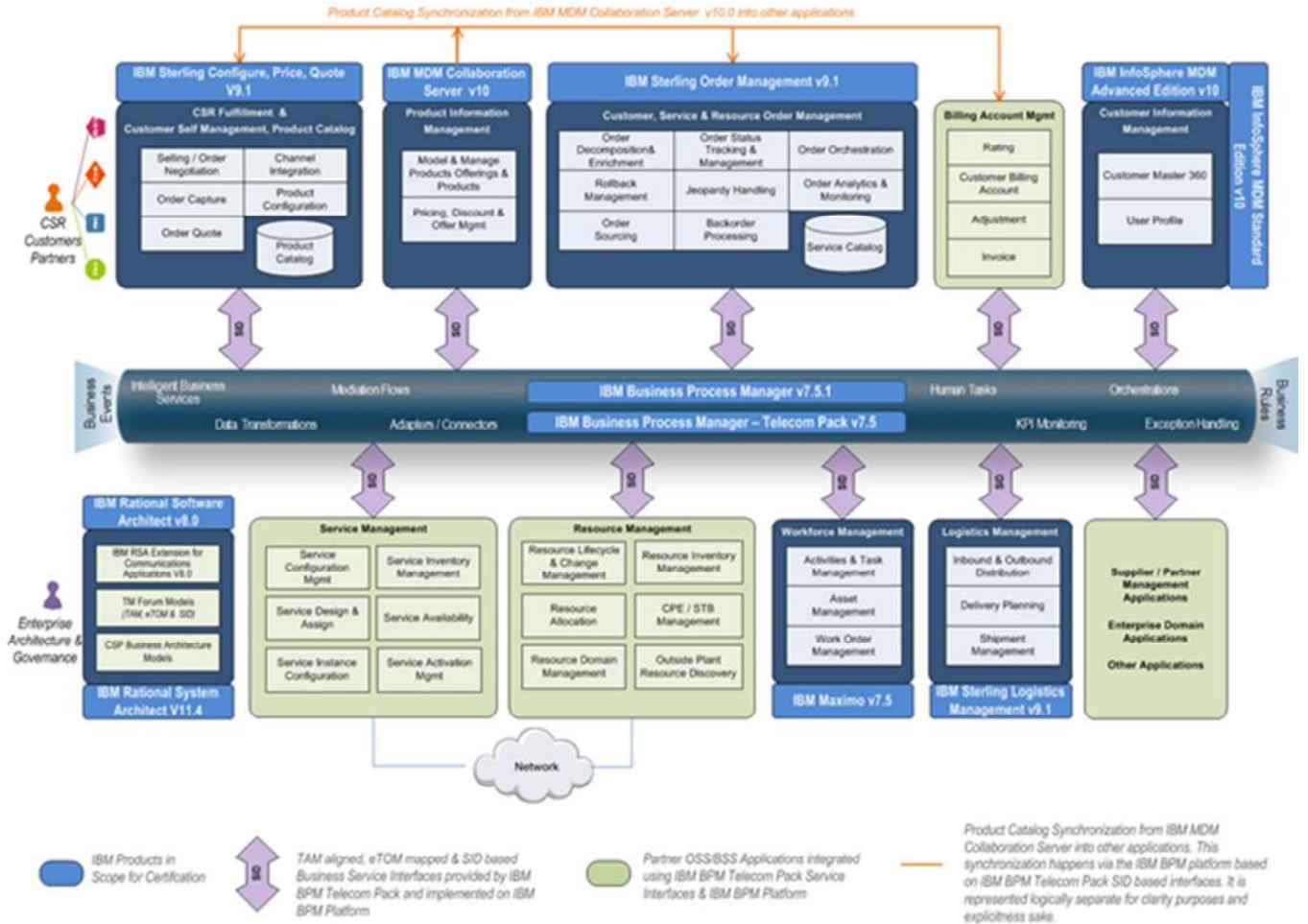


Figure 3.3 IBM Catalog-Driven Order Management Solution - Assessment Scope (eTOM)



4 Business Process Framework – Process Mapping Descriptions

This section provides the Process Mapping output from IBM's Self-Assessment which was reviewed by TM Forum Subject Matter Experts alongside supporting documentation for the IBM Catalog-Driven Order Management Solution.

4.1 Customer Relationship Management [1.1.1]



4.1.1 Customer Interface Management [1.1.1.2]

Table 4.1 Process Mappings - Customer Interface Management [1.1.1.2]

<p>1.1.1.2.1 - Manage Contact</p>	<p>IBM InfoSphere MDM Server and IBM InfoSphere Initiate Master Data Service provide capabilities to manage party information. IBM InfoSphere™ Master Data Management (MDM) Server provides out-of-the-box capability for managing master data including customers, contacts, products, accounts, suppliers, prospects, products, product bundles, services, agreements, and more.</p> <p>IBM BPM Telecom Pack provides interfaces that wraps the API's and interfaces exposed by above 2 applications in a SID based message semantics.</p>	<p>Brief description</p> <p>Manage all contacts/requests between potential or existing customers and the enterprise. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - IBM InfoSphere MDM Server - IBM InfoSphere Initiate Master Data Service - and architecture models in Rational Software Architect <p>Extended description</p> <p>The purpose of this process is to manage all contacts between potential or existing customers and the enterprise. It deals with the identification of the contact, its development, enhancement and update. AM</p> <p>To easily access, edit and manage master data for both business and administrative users, InfoSphere MDM Server is packaged with user interfaces for data stewardship, reporting, and administration. The UI can be customized to be role-based to accommodate power users, data stewards, CSRs, etc. See below for the Data Stewardship UI served as Business Admin Interface to manage the Party model information.</p> <p>IBM_eTOM_Pkg_1.1.1.2_Evidence_MDM_PRIVATE.pptx</p> <p>See link below for how IBM InfoSphere MDM Server allows you to performing party / contact maintenance</p> <p>http://publib.boulder.ibm.com/infocenter/mdm/v9r0m2/topic/com.ibm.mdmhs.dat.stdshp.doc/c_Perform_party_Maintenance.html</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “Customer Inventory” library in the Telecom Pacl) can be used to wrap the fine grained API's / services exposed by IBM InfoSphere MDM Server and IBM InfoSphere Initiate Master Data Service applications.</p>
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		<p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “CustomerInventory-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by IBM InfoSphere MDM Server and IBM InfoSphere Initiate Master Data Service as SID based components.</p> <p>[IBM_eTOM_Pkg_1.1.1.2_Evidence_TP_CustomerInventory_BusinessServices_Integration_Interfaces_PRIVATE.ptx]</p>
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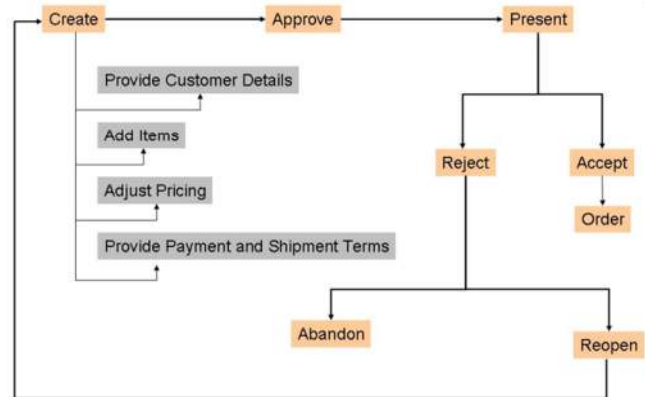
4.1.2 Selling [1.1.1.4]

Table 4.2 Process Mappings – Selling [1.1.1.4]

<p>1.1.1.4.3 - Negotiate Sales/Contract</p>	<p>IBM Sterling Configure, Price, Quote (CPQ) to accurately configure, price, quote, and order complex products and services. IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based message semantics.</p>	<p>Brief description</p> <p>Close the sale with terms that are understood by the customer, and are mutually agreeable to both the customer and the service provider. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Configure, Price, Quote - IBM Business Process Manager - IBM BPM Telecom Pack <p>IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It will guide your sales, and call center representatives, and partners in selecting and validating the right products. I till help in accurately configuring solution bundles, and providing cross-sell and up-sell opportunities. Also reduce sales cycle times and more quickly convert quotes to orders.</p> <p>Sterling CPQ consist of the following components explain in detail here,</p> <p>http://www-01.ibm.com/software/commerce/products/configure-price-quote/features.html?S_CMP=wspace</p> <p>A quote moves through the following statuses in its life cycle:</p> <ul style="list-style-type: none"> • Created - To create a quote, it is mandatory that you provide the details of the customer for whom you are creating the quote. After providing the customer information, you can add products to the quote, adjust the price of the products if required, and define the payment terms and shipment terms. • Approved - A quote must be approved by an approver before you can present it to a customer if any or all of the following conditions are met: <ul style="list-style-type: none"> ○ Any of the products in the quote fails validation. For example, a product in the quote may fail validation because the quantity of the product is either less than the minimum order quantity or more than the maximum order quantity configured for
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		<p>that product.</p> <ul style="list-style-type: none"> ○ The quote violates an approval rule. For example, let us suppose that an approval rule has been configured such that the quote requires approval every time the expiration date of the quote is modified. In such a scenario, if you modify the expiration date of the quote, the quote must be approved by an approver before you can present it to a customer. ○ The adjustments applied to the quote or any of the products in the quote under a manual pricing rule exceeds the maximum discount limit configured for the rule. For example, if the maximum discount limit configured for a 32" LCD television under a manual pricing rule is 5%, and you offer a discount of 7% to a customer, the quote must be approved before you can present it to the customer. <ul style="list-style-type: none"> ● Presented - You can present a quote to a customer after all the necessary approvals have been obtained. ● Accepted - After a quote is presented to a customer, if the customer wants to accept the quote in its current form, you can accept the quote on behalf of the customer. ● Rejected - After a quote is presented to a customer, if the customer does not agree to any or all of the contents of the quote and wants to reject the quote in its current form, you can reject the quote on behalf of the customer. After a quote is rejected, if you want to make modifications to the quote and present it to the customer again, you must rework the quote. ● Ordered - After a customer accepts a quote, you can convert the quote to an order. ● Abandoned - You can abandon a quote if the quote no longer serves a purpose. <p>The typical life cycle of a quote is illustrated in the following figure:</p>
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Extended description

The purpose of this process is to close the sale with terms that are understood by the customer, and are mutually agreeable to both the customer and the service provider. This process may involve obtaining customer agreement to standard terms and conditions. The agreement process may require interaction with the customer to ensure that the standard terms and conditions are understood by, and are acceptable to, the customer. A

In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 6, 7, 8 and 9

1.1.1.4_Selling_PRIVATE.pptx

http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_ViewQuoteSummary.html

http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_PresentAQuoteToACustomer.html

In some cases this process may involve the development of, and negotiation with the customer of, non-standard terms and conditions associated with sales proposals specifically developed to meet specific customer requirements. For complex sales proposals associated with customer RFPs this process may extend over long time periods and require extensive interaction with customers to achieve agreement. Aspects of contract



	<p>price determination may include issues of CPE prices from third party vendors, allowances based on customer location, etc. . A</p> <p>In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 1, 4, 5, 6</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_ValidateAQuote.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_AcceptAQuoteOnBehalfOfACustomer.html</p> <p>For RFPs, many of the commercial terms being sought may be developed or originated by the customer, and the negotiating team may need to develop strategies to achieve acceptable commercial outcomes. .The sale is concluded through negotiations and joint agreement on features, service levels, pricing and discounts, resulting in a sign-off formal agreement/contract between the customer and service provider. . A</p> <p>In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 6, 7, 8 and 9</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_ValidateAQuote.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_AcceptAQuoteOnBehalfOfACustomer.html</p> <p>Depending upon specific circumstances, final agreement from the Service Provider’s perspective may require escalation to, and agreement from, an appropriately</p>
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		<p>delegated manager. The formal agreement could include zero or more confirmed orders from the customer. These orders are then passed on as requests to allow formal Customer Orders to be generated and processed... . A</p> <p>In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 6, 7, 8 and 9</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_RequestApprovalForAQuote.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_AcceptAnApprovalRequestForAQuote.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_ViewTheApprovalSummaryOfAQuote.html</p>
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<p>1.1.1.4.4 - Acquire Customer Data</p>	<p>IBM Sterling Configure, Price, Quote (CPQ) to accurately configure, price, quote, and order complex products and services. IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Capture and record all pertinent customer data required for the initiation, realization and deployment of the agreed sales proposal. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Configure, Price, Quote - IBM Business Process Manager - IBM BPM Telecom Pack <p>IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It will guide your sales, and call center representatives, and partners in selecting and validating the right products. I till help in accurately configuring solution bundles, and providing cross-sell and up-sell opportunities. Also reduce sales cycle times and more quickly convert quotes to orders.</p> <p>Sterling CPQ consist of the following components explain in detail here. See specifically “Quoting software overview”</p> <p>http://www-01.ibm.com/software/commerce/products/configure-price-quote/features.html?S_CMP=wspace</p> <p>Extended Description</p> <p>The purpose of this process is to capture and record all pertinent customer data required for the initiation, realization and deployment of the agreed sales proposal. In most standard offerings the necessary customer data is often captured on the sales proposal agreement form associated with the standard offerings. For non-standard and/or complex sales agreements associated, for instance, with a customer RFP, extensive customer information may be required to plan and roll-out the agreed solution. For example, Centrex designs require extensive capture of details surrounding deployment of handsets, features associated with each handset, customer Centrex groups, etc. A</p> <p>Customer information can be captured as part of every quote or opportunity creation guided process in Sterling CPQ. In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool</p>
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		<p>when selling a product offering to a customer. In this context see slides 1 and 11</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForANewBusinessCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForANewConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForAnExistingBusinessCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForAnExistingConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAQuoteForANewConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAQuoteForANewBusinessCustomer.html</p> <p>In some cases the necessary level of precise detail may be available from the Develop Sales Proposal. Where this is not the case, this process is responsible for determining the precise customer information required to support the agreed proposal, capturing (through forms, or customer interviews, etc.) the required customer information, and storing the details in a form required by other processes. A</p> <p>Customer information can be captured as part of every quote or opportunity creation guided process in Sterling CPQ. In the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 1 and 11</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/top</p>
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		<p>ic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForANewBusinessCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForANewConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForAnExistingBusinessCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAnOpportunityForAnExistingConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAQuoteForANewConsumerCustomer.html</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.opportunityandquotemgmt.doc/t_SFS_CreateAQuoteForANewBusinessCustomer.html</p>
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<p>1.1.1.4.5 - Cross/Up Selling</p>	<p>IBM Sterling Configure, Price, Quote (CPQ) to accurately configure, price, quote, and order complex products and services. IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Configure, Price, Quote - IBM Business Process Manager - IBM BPM Telecom Pack <p>IBM Sterling Configure, Price, Quote automates the selling processes—the configuration, pricing and quoting of complex products, services, and bundles. It will guide your sales, and call center representatives, and partners in selecting and validating the right products. It will help in accurately configuring solution bundles, and providing cross-sell and up-sell opportunities. Also reduce sales cycle times and more quickly convert quotes to orders.</p> <p>Sterling CPQ consist of the following components explain in detail here. See specifically Product configurator overview and Price management overview.</p> <p>http://www-01.ibm.com/software/commerce/products/configure-price-quote/features.html?S_CMP=wspace</p> <p>Extended Description</p> <p>The purpose of this process is to ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products. A</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.catalogmgmtconcepts.doc/c_Cross-Sell.html?resultof=%22%63%72%6f%73%73%22%20%22%73%65%6c%6c%22%20</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.productadmin.doc/r_BC_ManagingTheCross-SellAssociationsForAnItem.html?resultof=%22%63%72%6f%73%73%22%20%22%73%65%6c%6c%22%20</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.productadmin.doc/t_BC_ModifyTheCross-</p>
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	<p>SellItemsDetails.html?resultof=%22%63%72%6f%73%73%22%20%22%73%65%6c%6c%22%20</p> <p>The ongoing analysis of customer trends (e.g. usage, problems, complaints) is used to identify when the current offerings may no longer be appropriate for the customer, or when the opportunity for a larger sale arises. Based on the data collected, more appropriate offerings should be recommended to the customer. A</p> <p>http://publib.boulder.ibm.com/infocenter/caas/v1r0/topic/com.ibm.help.settingupquotesconcepts.doc/c_ManagingRecommendedItemsInAQuote.html?resultof=%22%72%65%63%6f%6d%6d%65%6e%64%61%74%69%6f%6e%22%20%22%72%65%63%6f%6d%6d%65%6e%64%22%20</p> <p>In Sterling CPQ, depending on the items that a customer requests in a quote, a Field Sales Representative may recommend additional items in the quote. For example, if a customer requests a quote for a High Speed Internet, the Field Sales Representative may recommend a package of Mobile Data and Wireless Data Card as recommended items. Recommended items are configured for pricing information only; that is, the pricing for these recommended items is displayed, but is not included in the calculated total cost for the quote. However, if the customer decides to purchase the recommended item, the recommended line item is changed to a regular line item, the cost of the item is included in the calculated total cost of the quote, and, depending on pricing rules that may be applied, re pricing of the quote may occur. If additional discounts are applied to the order, an error will be thrown indicating the quote will need to be reworked.</p> <p>Also in the document below that shows step by step & guided selling screenshots from the Sterling CPQ tool when selling a product offering to a customer. In this context see slides 2, 3, 4 and 12</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>The Dashboard panel in Sterling CPQ lists quotes pending approval, by default, and enables you to customize the dashboard view. List of quotes pending approval is displayed in the following columns:</p> <p>Quotes Pending My Approval: Displays a maximum of 25</p>
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		<p>quotes that are pending your approval.</p> <p>My Quotes Pending Approval: Displays a maximum of 25 quotes for which you have requested approval.</p> <p>You can configure the Dashboard to display the details that you want to see more often by adding frequently viewed items.</p>
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4.1.3 Order Handling [1.1.1.5]

Table 4.3 Process Mappings – Order Handling [1.1.1.5]

<p>1.1.1.5.1 - Determine Customer Order Feasibility</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker customer orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM Sterling Configure, Price, Quote (CPQ) automates the selling processes—the feasibility, configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application</p>	<p>Brief description</p> <p>Check the availability and/or the feasibility of providing and supporting standard and customized product offerings where specified to a customer. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p> <p>The purpose of the Determine Customer Order Feasibility process is to check the availability and/or the feasibility of providing and supporting standard and customized product offerings where specified as part of the standard product offering process flow, to a customer. AM</p> <p>Using Sterling CPQ a CSR/agent or the customer can request for feasibility of a given product offering or product. The CSR or the customer will still need to pick one amongst the supported product offerings based on the returned feasibility result.</p> <p>IBM Telecom Pack provides an order handling BPMN process flow as part of which, Determine Customer Order Feasibility is implemented as a sub-process. As part of this sub-process it can invoke one or many business services, which are again provided by IBM Telecom Pack.</p> <p>See slides #4 and #5 in below, IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack</p>
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	<p>in a SID based message semantics.</p> <p>Provided as L2 Process Map in IBM Telecom Pack V75.</p> <p>Also, mapped to a process model in Order Handling Process model template.</p> <p>Implemented as sub-process for Order Handling solution scenario</p> <p>Modeled as L2 process in IBM TP Architecture Model.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based message semantics.</p>	<p>libraries. See library "ProductFullfillment-3.1" after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>The following interfaces are provided by the IBM BPM Telecom Pack to expose the SOA services out of the outside plant or inventory applications to check the availability of a given product or service and hence the product offerings.</p> <ul style="list-style-type: none"> - PerformCustomerOrderFeasibilityPT - PerformOrderFeasibilityPT - PerformProductOrderFeasibilityPT <p>The telecom pack business services for feasibility as part of its implementation (shown in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows.pptx slide #1 thru #3) would include a lookup into the sales and CRM catalog to retrieve the supported product offerings in the respective systems.</p> <p>These processes invoke requests to SM&O provisioning processes to determine the availability and supportability of product offerings to a customer AM</p> <p>Using Sterling CPQ a CSR/agent or the customer can request for feasibility of a given product offering or product. The CSR or the customer will still need to pick one amongst the supported product offerings based on the returned feasibility result.</p> <p>IBM Telecom Pack provides an order handling BPMN process flow as part of which, Determine Customer Order Feasibility is implemented as a sub-process. As part of this sub-process it can invoke one or many business services, which are again provided by IBM Telecom Pack.</p> <p>DetermineCustomerOrderFeasibility-TP Interfaces.jpg</p> <p>See slides #4 and #5 in below, IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides interfaces for querying a</p>
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	<p>service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library and “ServiceProvisioning-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>The following interfaces are provided by the IBM BPM Telecom Pack to expose the SOA services out of the outside plant or inventory applications to check the availability of a given product or service and hence the product offerings.</p> <ul style="list-style-type: none"> - PerformServiceOrderFeasibilityPT <p>The telecom pack business services for feasibility as part of its implementation (shown in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows.pptx slide #1 thru #3) would include a lookup into the sales and CRM catalog to retrieve the supported product offerings in the respective systems.</p> <p>These processes are also responsible for determining whether the offering can be supported by other CRM processes. A</p> <p>The telecom pack business services for feasibility as part of its implementation (shown in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows.pptx slide #1 thru #3) would include a lookup into the sales and CRM catalog to retrieve the supported product offerings in the respective systems.</p> <p>Using the IBM Telecom Pack the SOA business services can be exposed to the CRM applications. Also using IBM BPM based business process that can be coded, CRM processes can be invoked and also can be automated within IBM BPM.</p>
<p>1.1.1.5.2 - Authorize Credit</p>	<p>Brief Description</p> <p>Assess a customer's credit worthiness in support of managing customer risk and company exposure to bad debt AM</p> <p>Fully supported based on the following components</p>



		<p>from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p> <p>The purpose of the Authorize Credit processes is to assess a customer's credit worthiness in support of managing customer risk and company exposure to bad debt. AM</p> <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library "ProductFulfillment-3.1" and "CustomerInventory-3.1" after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>The following interfaces are provided by the IBM BPM Telecom Pack to expose the SOA services out of the credit check applications check & authorize a customer's credit worthiness. The credit check process can be automated using IBM BPM also.</p> <ul style="list-style-type: none"> - AuthorizeCreditPT - DetermineCreditRatingPT <p>See slides #6 in below which shows where credit check can be initiated by invoking an IBM Telecom Pack exposed business service during order entry or order configuration.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>The customer credit check process can also be automated, monitored and measured using IBM BPM.</p>
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	<p>This process is responsible for initiating customer credit checks and for authorizing credit and credit terms in accordance with established enterprise risk and policy guidelines AM</p> <p>Explanation from above plus See slides #6 in below which shows where credit check can be initiated by invoking a IBM Telecom Pack exposed business service during order entry or order configuration.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>The customer credit authorization process can also be automated, monitored and measured using IBM BPM.</p>
<p>1.1.1.5.4 - Track & Manage Customer Order Handling</p>	<p>Brief Description</p> <p>Ensure customer provisioning activities are assigned, managed and tracked efficiently to meet the agreed committed availability date AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p> <p>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. AM</p> <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order through a predefined process. A pipeline consists of the different statuses a customer / product order goes through including design/assign, configuration of service, activation of service, work assignments etc. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are</p>



		<p>configuring. A repository is a logical collection of entities that define the business process workflow. The following entities are included in the Sterling Order Management repository:</p> <ul style="list-style-type: none"> • Pipelines • Transactions • Statuses • Conditions • Actions • Services (Telecom Pack service invocations) <p>See slides 4, 5 and 8 thru 10 in below IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>See pages 225 to 236 for details behind Pipelines, Transactions, Statuses. Distributed_Order_Management_Configuration_Guide_PRIVATE.pdf</p> <p>Also see end to end process modeled and available in IBM BPM OrderHandlingE2E.jpg</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “ProductFulfillment” and “CustomerBilling” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any OSS/BSS application. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ProductFulfillment-3.1” and “CustomerInventory-3.1” and “CustomerBilling-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular BSS/OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p style="background-color: #00ff00;">Responsibilities of these processes include, but are not</p>
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		<p>limited to:</p> <p>· Scheduling, assigning and coordinating customer provisioning related activities; AM</p> <p>IBM Sterling Order Management provides this capability. IBM Sterling Order Management allows you to define, model and execute order management pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Customer Order, Product Order through a predefined process. Pipeline determination is used to set up conditions that affect which pipeline is used during the start of the business process workflow. Transaction dependency enables you to process an order based on certain conditions defined for a transaction. It provides the ability for a transaction to allow some order lines to not be processed until certain conditions are met.</p> <p>See slides 4, 5 and 8 thru 10 in below IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_TransactionDependency_PRIVATE.jpg</p> <p>See 390 and 391 for details behind a “Schedule” transaction that schedules orders to specific ship nodes making sure that the scheduled ship nodes have enough inventory to process the order,</p> <p>Distributed_Order_Management_Configuration_Guide_PRIVATE.pdf</p> <p>· Generating the respective service order creation request(s) to Issue Service Orders based on specific customer orders; A</p> <p>See slides 4, 5 and 8 thru 15 in below. See slides 12 & 13 specifically. IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>· Escalating status of customer orders in accordance with local policy; AM</p> <p>IBM Sterling Order Manager has a capability called “Work Order Monitor” that provides time-triggered transaction alerts the enterprise when a work order remains in a particular state or hold type for a specific</p>
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		<p>amount of time. Use this monitor to track how long work orders stay in a particular state or hold type.</p> <p>See slides 1 thru 11 in below. See #11 specifically where alerts can be generated on order status or states or dates IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_TransactionDependency_PRIVATE.jpg</p> <p>· Undertaking necessary tracking of the execution process; AM</p> <p>See slides 11 thru 16 where the status of an order at various levels and also at a task level can be tracked. IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>· Adding additional information to an existing customer order; AM</p> <p>Using IBM Sterling Order Management you can add notes to an order by selecting the icon in the order header panel of Order Detail Screen. When you modify any information in the order console screen and click Save, the modification reason window pops open for you to select the reason code and enter a reason text. See pages 123 and 145 in below,</p> <p>Distributed_Order_Management_Configuration_Guide_PRIVATE.pdf</p> <p>See slide 17 in below. IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>· Modifying information in an existing customer order; AM</p> <p>Using IBM Sterling CPQ you can modify customer information including his/her billing and/or home</p>
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	<p>address, name and add. See slide 18 in below.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>See slide 20 in below on how order attributes can be changed.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>Also during stages pretty deep in order management, the shipping address, payment information, shipment method can be changed in IBM Sterling Order Management. See pages 37 and 162 in below,</p> <p>Distributed_Order_Management_Configuration_Guide_PRIVATE.pdf</p> <p>IBM Telecom Pack provides the following interfaces to programmatically request updates to an order from an external system,</p> <ul style="list-style-type: none"> - AmendOrder - AmendCustomerOrder <p>Modifying the customer order status; AM</p> <p>See slides 19 and 20 in below.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides the following interfaces to programmatically request updates to an order from an external system,</p> <ul style="list-style-type: none"> - AmendOrder - AmendCustomerOrder <p>Canceling a customer order when the initiating sales request is cancelled; A</p> <p>See slides 19 and 20 in below.</p>
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		<p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides the following interfaces to programmatically request updates to an order from an external system,</p> <ul style="list-style-type: none"> - CancelOrder - CancelCustomerOrder <p>· Monitoring the jeopardy status of customer orders, and escalating customer orders as necessary; and AM</p> <p>In IBM Sterling Order Management order console, the Order Alerts Screen allows you to view the alerts associated with an order including orders that have gone into an exception or jeopardy state. See slides 16, 21 and 22 in below.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>In IBM Sterling Order Management, Exception Monitor provides a time-triggered transaction that monitors exceptions in the system. It monitors the exceptions logged in the system and escalates these exceptions:</p> <ul style="list-style-type: none"> - If an exception has not been assigned to a user by a certain time - If an exception has not been resolved by a certain time - If the active size of the queue is more than a certain maximum size - In order to prevent re-alerts on exceptions during every run of the Exception Monitor, specify a re-alert interval through Alert Management in the Applications Manager. This attribute is associated with a queue and can be configured for each queue. <p>· Indicating completion of a customer order by modifying the customer order status. A</p> <p>See slides 19 and 20 in below.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p>
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		<p>ptx</p> <p>IBM Telecom Pack provides the following interfaces to programmatically request updates to an order from an external system,</p> <ul style="list-style-type: none"> - NotifyOrderCompletion <p>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.</p> <p>AM</p> <p>Using IBM Sterling Order Management as part of the customer order management process flows, you can invoke the SOA integration services exposed by IBM Telecom Pack. IBM Telecom Pack provides interfaces for achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “SupplierPartnerFulfillment-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>IBM Telecom Pack provides the following interfaces to programmatically request for components from a S/P,</p> <ul style="list-style-type: none"> - FindSPOrderPT - QuerySPOrderPT - SubmitSPOrderPT
<p>1.1.1.5.5 - Complete Customer Order</p>		<p>Brief Description</p> <p>Manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management



	<ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p> <p>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. A</p> <p>This capability is an integral part of IBM Sterling Order Management. The order management process will orchestrate the activities thru completion for all order lines and component service orders. IBM Telecom Pack provides the following interfaces to programmatically update the customer information and also communicate with the customer about the completion of the order.</p> <ul style="list-style-type: none"> - NotifyOrderCompletion - SendStandardCommunication <p>Also look at the following customer order handling process modeled in IBM BPM that can do the same.</p> <p>TrackAndManageCustomerOrder_PRIVATE.pdf</p> <p>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. AM</p> <p>While the testing of the service itself can be automated (see slides #23 in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx) using Telecom Pack interfaces, this step can also be performed manually by a network technician or CSR.</p>
<p>1.1.1.5.6 - Issue Customer Orders</p>	<p>Brief Description</p> <p>Issue correct and complete customer orders. AM</p>



		<p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p> <p>The purpose of the Issue Customer Orders processes is to issue correct and complete customer orders. These processes ensure that all necessary information about the Customer Order (for example, type of product, install address, special requirements, etc.) is available. A</p> <p>Orders are configured and entered in IBM Sterling CPQ. The orders when submitted from IBM Sterling CPQ, automatically are created in IBM Sterling Order Management (since they use the same catalog and database under the covers) as one or many customer orders. For the most part there will be one customer order in Sterling OM. The selling process including products chosen, installation notes etc are explained below.</p> <p>1.1.1.4_Selling_PRIVATE.pptx</p> <p>The customer orders may be required to satisfy pertinent customer requests from the Selling processes (in particular taking into account the purchase order from Negotiate Sales), may arise as a result of requests for customer provisioning activity to satisfy customer problem restoration activities, may arise to alleviate customer performance issues. M</p> <p>Using Sterling CPQ a CSR/agent or the customer can request for feasibility of a given product offering or product. The CSR or the customer will still need to pick one amongst the supported product offerings based on the returned feasibility result.</p> <p>IBM Telecom Pack provides an order handling BPMN process flow as part of which, Determine Customer Order Feasibility is implemented as a sub-process. As part of this sub-process it can invoke one or many</p>
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	<p>business services, which are again provided by IBM Telecom Pack.</p> <p>See slides #4 and #5 in below, IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ProductFullfillment-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>The following interfaces are provided by the IBM BPM Telecom Pack to expose the SOA services out of the outside plant or inventory applications to check the availability of a given product or service and hence the product offerings.</p> <ul style="list-style-type: none"> - PerformCustomerOrderFeasibilityPT - PerformOrderFeasibilityPT - PerformProductOrderFeasibilityPT <p>The telecom pack business services for feasibility as part of its implementation (shown in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows.pptx slide #1 thru #3) would include a lookup into the sales and CRM catalog to retrieve the supported product offerings in the respective systems.</p> <p>These processes assess the information contained in the customer order relating to the sales request or initiating customer process request to determine the associated customer orders that need to be issued. A</p> <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process. <i>Pipeline determination</i> is used to set up</p>
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	<p>conditions that affect which pipeline is used during the start of the business process workflow. For example, if a product order for a Voice product is received, then that product (Voice) will generate an another customer order for the handset. See slide #20 in below,</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>The issued customer order may require a feasibility assessment, may require new provisioning activities, may require a change to a previously issued customer order, or may require cancellation of a previously initiated customer order. AM</p> <p>Using Sterling CPQ a CSR/agent or the customer can request for feasibility of a given product offering or product. The CSR or the customer will still need to pick one amongst the supported product offerings based on the returned feasibility result.</p> <p>IBM Telecom Pack provides an order handling BPMN process flow as part of which, Determine Customer Order Feasibility is implemented as a sub-process. As part of this sub-process it can invoke one or many business services, which are again provided by IBM Telecom Pack.</p> <p>See slides #4 and #5 in below, IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ProductFullfillment-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>The following interfaces are provided by the IBM BPM Telecom Pack to expose the SOA services out of the outside plant or inventory applications to check the availability of a given product or service and hence the product offerings.</p>
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		<ul style="list-style-type: none"> - PerformCustomerOrderFeasibilityPT - PerformOrderFeasibilityPT - PerformProductOrderFeasibilityPT <p>The telecom pack business services for feasibility as part of its implementation (shown in IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows.pptx slide #1 thru #3) would include a lookup into the sales and CRM catalog to retrieve the supported product offerings in the respective systems.</p> <p>The customer order may also relate to the cancellation of previously purchased specific services. Where, the initiating request for a purchased product offering has a standard customer order this process is responsible for issuing the customer order, and for creating a record of the relevant initiating sales request and the associated customer order. Where the initiating request for a purchased product offering has special or unusual requirements, and a specific feasibility assessment has been previously undertaken, this process is responsible for issuing the customer order, and for creating a record of the relevant initiating request information and the associated customer order. M</p> <p>As part of the order entry, if a special site survey or feasibility is required it can be added to the order as notes (see slide #9 in 1.1.1.4_Selling_PRIVATE.pptx) and when it comes into Sterling Order Management it will be treated accordingly.</p> <p>Where the initiating request for a purchased product offering has special or unusual requirements, and a specific feasibility assessment has not been previously undertaken, this process marks the issued customer order as requiring special handling, and passes management for further processing to the Track & Manage Customer Order Handling process. The orchestration, if required, and tracking of the customer order progress is the responsibility of the Track & Manage Customer Order Handling processes. M</p> <p>As part of the order entry, if a special site survey or feasibility is required it can be added to the order as notes (see slide #9 in 1.1.1.4_Selling_PRIVATE.pptx) and</p>
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	<p>when it comes into Sterling Order Management it will be treated accordingly.</p>
<p>1.1.1.5.7 - Report Customer Order Handling</p>	<p>Brief Description</p> <p>Monitor the status of customer orders, provide notifications of any changes and provide management reports. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>IBM BPM with IBM Business Monitor provides business activity monitoring (BAM) software enabling users visibility into real-time, end-to-end order management processes to help optimize processes and increase efficiency. It provides business activity monitoring solution for processes and OSS/BSS applications running in disparate environments. Fully integrated Cognos Business Intelligence Server 10.1.1 for advanced analysis and reporting on historical order data is also possible. Users can customize the dashboard controls & reports and views of KPIs, metrics, and alerts through Web interfaces, iPad, mobile devices, and corporate portals.</p> <p>Extended Description</p> <p>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. AM</p> <p>See slides #6 and #11 in below on how orders can be searched based on a specific status and creation date etc.</p> <p>IBM_eTOM_Pkg_1.1.1.5_Evidence_OMFlows_PRIVATE.pptx</p> <p>Also see dashboards below that are provided IBM Business Monitor,</p> <p>dashboard1.jpg KPIs1.jpg</p>

		<p>KPIs2.jpg</p> <p>Also this capability is an integral part of IBM Sterling Order Management. The order management process will orchestrate the activities thru completion for all order lines and component service orders. IBM Telecom Pack provides the following interfaces to programmatically update the customer information and also communicate with the customer about the completion of the order.</p> <ul style="list-style-type: none"> - ReceiveStatusNotification - NotifyOrderCompletion - SendStandardCommunication <p style="background-color: #00ff00; padding: 2px;">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. A</p> <p>IBM Telecom Pack provides the following interfaces to programmatically update the customer information and also communicate with the customer and/or interested parties about the completion of the order.</p> <ul style="list-style-type: none"> - ReceiveStatusNotification - NotifyOrderCompletion - SendStandardCommunication <p>Look at the following customer order handling process modeled in IBM BPM and notice how order completion is notified (via step NotifyOrderCompletion) or published on a topic to interested parties.</p> <p>TrackAndManageCustomerOrder_PRIVATE.pdf</p> <p style="background-color: #00ff00; padding: 2px;">Notification lists are managed and maintained by the Support Order Handling processes. 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. M</p> <p>See slides #6 and #11 in below on how orders can be searched based on a specific status and creation date etc.</p>
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<p>1.1.1.5.8 - Close Customer Order</p>		<p>Brief Description</p> <p>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. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended Description</p>



		<p>The objective of the Close Customer Order processes is to close a customer order when the customer provisioning activities have been completed. M</p> <p>This capability is an integral part of IBM Sterling Order Management. The order management process will orchestrate the activities thru completion for all order lines and component service orders. The customer might be contacted to verify their satisfaction before the order is manually closed in the order management console.</p> <p>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. M</p> <p>This capability is an integral part of IBM Sterling Order Management. The order management process will orchestrate the activities thru completion for all order lines and component service orders. The customer might be contacted to verify their satisfaction before the order is manually closed in the order management console.</p>
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4.1.4 Bill Payments & Receivables Management [1.1.1.11]

Table 4.4 Process Mappings – Bill Payments & Receivables Management [1.1.1.11]

<p>1.1.1.11.1 - Manage Customer Billing</p>	<p>IBM Sterling Configure, Price, Quote (CPQ) automates the selling processes—the feasibility, configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker customer orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based</p>	<p>Brief description</p> <p>Ensure effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - and architecture models in Rational Software Architect <p>Extended description</p> <p>The primary purpose of this process pertains to effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle. This process focuses on managing changes to the customer's billing account (for example, customer billing address, etc.) as it relates to the customer's service portfolio, such as ensuring that the correct purchased products are assigned to the customer's billing account for accurate billing. AM</p> <p>See</p> <p>Implemented as sub-process for Dynamic Order Fulfillment Process Flow within IBM Telecom Pack Process Model and as part of Dynamic Order Fulfillment Sol. Scenario.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/index.jsp?topic=/com.ibm.wbpm.main.doc/ic-homepage-bpm.html</p> <p>The integration layer provided by IBM BPM and IBM TP provides the following SID based and TAM mapped business service interfaces. These interfaces can be used to wrap the fine grained API's / services exposed by the respective billing applications esp. around managing the</p>
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	<p>message semantics.</p> <p>Provided as L2 Process Map in IBM Telecom Pack V75.</p> <p>Also, mapped to a process model in Order Handling Process model template.</p> <p>Implemented as sub-process for Order Handling solution scenario</p> <p>Modeled as L2 process in IBM TP Architecture Model.</p>	<p>lifecycle of a customer billing account.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Business Services_Integration_Interfaces_PRIVATE.pptx]</p> <p>More specifically the following services interfaces are provided in the IBM Telecom Pack that pertains to management of the customer’s billing account as it relates to the products purchased, managing changes to the customer’s billing account (for example, customer billing address, etc,</p> <ul style="list-style-type: none"> • ActivateBillingAccountPT • ChangeBilling AccountParentPT • CloseBillingAccountPT • CreateBillingAccountPT • FindBillingAccountPT • ModifyBilling AccountPropertiesPT • ModifyBillingAccountStatusPT • QueryBillingAccountPT <p>See evidence below for integration process flows implemented in IBM BPM and IBM Telecom Pack for managing the lifecycle of a customer billing account.</p> <p>IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_PRIVATE.pptx</p>
<p>1.1.1.11.2 - Manage Customer Payments</p>	<p>IBM Sterling Configure, Price, Quote (CPQ) automates the selling processes—the feasibility, configuration, pricing and quoting of complex products, services, and bundles. It can guide your sales, and call center representatives, and partners in selecting and validating the right products.</p> <p>IBM Sterling Order Management provides</p>	<p>Brief Description</p> <p>Collect payments made by the customer and reconcile the payments to the invoices. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - IBM Sterling Configure, Price, Quote - IBM Sterling Order Management - and architecture models in Rational Software Architect <p>Extended description</p> <p>The purpose of the Manage Customer Payments process is to collect payments made by the customer</p>



	<p>functionality to intelligently orchestrate, track and manage and broker customer orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces required during the sales process by IBM Sterling CPQ and exposes those services out of any OSS/BSS application in a SID based message semantics.</p> <p>Provided as L2 Process Map in IBM Telecom Pack V75.</p> <p>Also, mapped to a process model in Dynamic Order Fulfillment Process flow.</p> <p>Implemented as sub-process for Dynamic Order Fulfillment solution scenario</p> <p>Modeled as L2 process in IBM TP Architecture Model.</p>	<p>and reconcile the payments to the invoices. This process is meant to match these payments with the services/invoices delivered to this customer. AM</p> <p>Implemented as sub-process for Dynamic Order Fulfillment Process Flow within WTCP Process Model and as part of Dynamic Order Fulfillment Sol. Scenario.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/index.jsp?topic=/com.ibm.wbpm.main.doc/ic-homepage-bpm.html</p> <p>The integration layer provided by IBM BPM and IBM TP provides the following SID based and TAM mapped business service interfaces. These interfaces can be used to wrap the fine grained API's / services exposed by the respective billing applications.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>More specifically the following services interfaces are provided in the IBM Telecom Pack that pertains to processing and collecting payments made by the customer,</p> <ul style="list-style-type: none"> • AuthorizeCreditCardPT • MakeBalanceTransferPT • ProcessPaymentPT • RetrieveCreditCardNumberVerificationPT <p>Also these business services can be orchestrated into a business process as shown in slides 15 and 16 as in below.</p> <p>IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_PRIVATE.pptx</p> <p>In addition these processes are responsible for establishing, managing and, if required, operating the various payment processes that the Service Provider chooses to establish. These processes can include credit/debit/EFT payments using various channels, either directly or through third parties, and cash or cheque payments, either directly or through third parties. AM</p>
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		<p>See evidence (slides 13 and 14) below for integration process flows implemented in IBM BPM and IBM Telecom Pack for managing payments and payment adjustments.</p> <p>IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_PRIVATE.pptx [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/index.jsp?topic=/com.ibm.wbpm.main.doc/ic-homepage-bpm.html</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Sterling Order Management allows you to define the types of payment the system accepts and the rules surrounding payment collection. It also allows you to dynamically manage order-related payment, credit and invoicing information to / from remote systems by invoking APIs via the Service Definition Framework.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_SterlingOM_Payments.pdf]</p> <p>These processes are responsible for establishing the requirements for, and managing any commercial arrangements agreed with, third party suppliers. Note that the Supply Chain Capability Delivery process is used to deliver the commercial agreements. M</p> <p>Using IBM Sterling Order Management you can configure vendor definitions used to establish a relationship between an organization and its Seller.</p> <p>Supply_Collaboration_Configuration_Guide_PRIVATE.pdf</p> <p>To the extent that processing of any payments is undertaken internally, i.e. cheque processing, these processes are responsible for managing the operation and quality of the internal processing. A</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_SterlingOM_Payments.pdf]</p> <p>Where payments do not match invoices, this process is responsible for informing the Manage Debt Management processes of any underpayments, and the</p>
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		<p>Bill Inquiry Handling processes for any over-payments. Underpayments and overpayments are handled appropriately by these separate processes. A</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>See evidence (slides 15 and 16) below for integration process flows implemented in IBM BPM and IBM Telecom Pack for managing billing disputes and billing inquiry handling.</p> <p>IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_PRIVATE.pptx</p>
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4.1.5 Bill Inquiry Handling [1.1.1.12]

Table 4.5 Process Mappings – Bill Inquiry Handling [1.1.1.12]

<p>1.1.1.12.3 - Authorize Customer Bill Invoice Adjustment</p>	<p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any billing application in a SID based message semantics.</p>	<p>Brief description</p> <p>Adjust the customer's bill invoice based on detailed assessment and/or policy. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Extended description</p> <p>The purpose of the Authorize Customer Bill Invoice Adjustment processes is to adjust the customer's bill invoice based on detailed assessment and/or policy. AM</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under "Customer Billing" library in the Telecom Pack) can be used to wrap the fine grained API's / services exposed by any Billing Application.</p> <p>The IBM BPM business process engine can automate the cross-application processes that would be necessary to automate this capability. This would include invoking various coarse grained business services exposed by the Telecom Pack. See document below for the Telecom Pack developer guide.</p> <p>[IBM-BPM-TelecomPack-DeveloperGuide-PRIVATE.pdf]</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library "CustomerBilling-3.1" after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine</p>
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	<p>grained interfaces exposed by any billing application IBM to adjust a customer bill as SID based SOA components. More specially look at “Process Billing Dispute”, “Adjust Bill”, and “Inquire on Bill”.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Business Services_Integration_Interfaces_PRIVATE.pptx]</p> <p>See slides 5 and 6 and 9 and 10 specifically in evidence below.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>Also, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg</p> <p>The responsibilities of this process include, but are not limited to:</p> <ul style="list-style-type: none"> - Determination of whether policy allows for automated adjustment of the customer bill invoice, and approving any resultant adjustments; AM <p>IBM BPM provides capabilities to create policy decision and policy enforcement points related to bill invoice adjustments and approvals. This enforcement can be automated via the business rule capabilities or as a human task that can be assigned and tracked thru completion. See slide #9 and #10 in the evidence below.</p> <p>IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx</p> <p>Also, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg</p> <ul style="list-style-type: none"> - Undertaking more detailed analysis and investigation to determine whether a bill adjustment is acceptable, including gaining appropriate management authority to make the adjustment; and M <p>This step will have to be performed within the billing application and outside the scope of IBM’s solution. But this process can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom</p>
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		<p>Pack.</p> <p>See slides 7, 8, 9 and 10 specifically in evidence below.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>P016-B18_ResolveInternalBillingQueries&Escalation.jpg</p> <p>P016-B19_ResolveQueriesArchivedBillingData .jpg</p> <p>P016-H01C_SupportBilling.jpg</p> <p>- Recording the results of the adjustment if approved into the records relating to the customer’s bill invoice.</p> <p>AM</p> <p>This step will have to be performed within the billing application and outside the scope of IBM’s solution. But this process can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack.</p> <p>P016-B18_ResolveInternalBillingQueries&Escalation.jpg</p> <p>P016-B19_ResolveQueriesArchivedBillingData .jpg</p> <p>P016-H01C_SupportBilling.jpg</p> <p>These processes rely on the availability of appropriate adjustment policies, which are created within the Support Bill Inquiry Handling processes, for the timely resolution of minor billing disputes. AM</p> <p>This step will have to be performed within the billing application and outside the scope of IBM’s solution. But this process can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack.</p> <p>See slides 9 and 10 specifically in evidence below.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>Also,</p>
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		<p>P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p> <p>The resolution processes may require investigation of the billing processes themselves to determine whether the disputed bills are the result of quality errors within the Service Provider processes. AM</p> <p>This step can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack. See process model below. More specifically look for process activities towards the end of the process that analyzes why the dispute occurred and how various / appropriate people are involved and how CSR's maybe trained.</p> <p>P016-B18_ResolveInternalBillingQueries&Escalation.jpg</p> <p>See slides 9 and 10 specifically in evidence below.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>Also, P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p>
<p>1.1.1.12.4 - Track & Manage Customer Bill Inquiry Resolution</p>	<p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any billing application in a SID based message semantics.</p>	<p>Brief Description Efficiently assign, coordinate and track specific customer bill inquiry analysis, bill adjustments and ensuring that appropriate credits and/or other agreed adjustments are made available to the adjustments processes activities, and escalate any open customer bill inquiry reports in jeopardy. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Extended Description The objective of the Track & Manage Customer Bill Inquiry Resolution processes is to efficiently assign, coordinate and track specific customer bill inquiry analysis, bill adjustments and ensuring that appropriate credits and/or other agreed adjustments are made available to the adjustments</p>



	<p>processes activities, and escalate any open customer bill inquiry reports in jeopardy. AM</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “Customer Billing” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Billing Application.</p> <p>The IBM BPM business process engine can automate the cross-application processes that would be necessary to automate this capability. This would include invoking various coarse grained business services exposed by the Telecom Pack. See document below for the Telecom Pack developer guide.</p> <p>[IBM-BPM-TelecomPack-DeveloperGuide-PRIVATE.pdf] See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “CustomerBilling-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any billing application IBM to adjust a customer bill as SID based SOA components. More specially look at “Process Billing Dispute”, “Adjust Bill”, and “Inquire on Bill”.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_BusinessServices_Integration_Interfaces_PRIVATE.pptx] See slides 7 and 8 specifically in evidence below.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> - Scheduling, assigning and coordinating analysis and specific customer bill inquiry/complaint adjustment activities; AM <p>This step can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack.</p> <ul style="list-style-type: none"> - Modifying the customer bill inquiry/complaint report status; A <p>This step can be automated using the business services components (built on top of IBM BPM) that integrate into the billing application based on the service interfaces exposed by Telecom Pack.</p> <p>See, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p>
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		<p>- Canceling a customer bill inquiry report when the specific request was related to a false billing event; and AM</p> <p>This step can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack.</p> <p>Specifically see, P016-H01C_SupportBilling.jpg</p> <p>And also, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg</p> <p>- Monitoring the jeopardy status of open customer bill inquiry reports, and escalating customer bill inquiry reports as necessary. AM</p> <p>See, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p> <p>Also see core capabilities provided in IBM BPM where these processes can be modeled, automated and monitored in the links below.[</p> <p>Configuring KPIs and SLAs, http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.admin.doc/reporting/t/configuring_kpis_slas.html</p> <p>Associating KPIs with activities http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.admin.doc/reporting/t/associating_kpis.html</p> <p>Creating custom KPIs http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.admin.doc/reporting/t/creating_custom_kpis.html</p> <p>Creating SLAs http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.admin.doc/reporting/t/creating_slas.html</p> <p>Handling Events http://publib.boulder.ibm.com/bpcsamp/v7r5/businessprocessdesignSamples/AllEventsSample.html</p> <p>http://publib.boulder.ibm.com/bpcsamp/v7r5/businessprocessdesignSamples/AllEventsSample/overview.html</p> <p>Note that some specific product and/or service</p>
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		<p>components may be owned and managed by suppliers/partners. In these cases the Track & Manage Customer Bill Inquiry Resolution process is responsible for initiating requests, through - S/P Settlements & Payments Management for resolution by the supplier/partner of the specific bill inquiries/complaints. AM</p> <p>This step can be automated using the business services components (built on top of IBM BPM) that integrate into the supplier/partner trouble ticket systems based on the service interfaces exposed by Telecom Pack. We will open a customer problem or a trouble ticket in the S/P trouble ticket system that in turn will trigger their internal processes. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library "SupplierPartnerAssurance-3.1" after opening the link. http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See slides 7 and 8 specifically in evidence below. See also slides 9 and 10 specifically in evidence below. [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_Billing_Capability+BusinessProcessModels.pptx]</p> <p>Also see, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p> <p>These processes will co-ordinate all the actions necessary in order to guarantee that all tasks are finished at the appropriate time and in the appropriate sequence. AM</p> <p>]</p> <p>Also see, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p> <p>This is a core capability of IBM BPM that can coordinate, management and report on the end to end activities. [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.widget.doc/portalhelp/topic/intro.html]</p> <p>The Track & Manage Bill Inquiry Resolution processes will also inform the Close Customer Bill Inquiry Report processes by modifying the customer bill inquiry report status to cleared when the specific customer bill inquiry/complaint issues have been resolved. AM</p> <p>Also see, P016-B18_ResolveInternalBillingQueries&Escalation.jpg P016-B19_ResolveQueriesArchivedBillingData .jpg P016-H01C_SupportBilling.jpg</p> <p>This step can be automated using the business services</p>
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		components (built on top of IBM BPM) that integrate into the billing application based on the service interfaces exposed by Telecom Pack.
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4.2 Service Management & Operations [1.1.2]

4.2.1 SM&O Support & Readiness [1.1.2.1]

Table 4.6 Process Mappings – SM&O Support & Readiness [1.1.2.1]

<p>1.1.2.1.1 - Manage Service Inventory</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM would work with a business partner like Ericsson (Telcordia), Comptel etc. , who provide the service inventory core application capabilities.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by the service inventory management application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Establish, manage and administer the enterprise's service inventory, as embodied in the Service Inventory Database, and monitor and report on the usage and access to the service inventory, and the quality of the data maintained in it. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - Partner Service Inventory Management application - and architecture models in Rational Software Architect <p>Extended Description</p> <p>The responsibilities of the Manage Service Inventory processes are twofold - establish, manage and administer the enterprise's service inventory, as embodied in the Service Inventory Database, and monitor and report on the usage and access to the service inventory, and the quality of the data maintained in it. AM</p> <p>Using IBM Sterling Order Management you can define, model and execute pipelines for querying the inventory for a given customer and service. This pipeline in turn can invoke the SOA integration services exposed by IBM Telecom Pack. The interfaces for achieving this capability from the Telecom Pack include,</p> <ul style="list-style-type: none"> - queryService - retrieveServiceConfiguration <p>[IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business_Services_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business_Services_Implementation_PRIVATE.pptx]</p> <p>The service inventory maintains records of all service</p>
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	<p>infrastructure and service instance configuration, version, and status details. It also records test and performance results and any other service related information, required to support SM&O and other processes. A</p> <p>See slides #1 and #2 below for integration process flows that implements telecom pack service interfaces to an service inventory application,</p> <p>[IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business Services_Implementation_PRIVATE.pptx]</p> <p>The service inventory is also responsible for maintaining the association between customer purchased product offering instances and service instances, created as a result of the Service Configuration & Activation processes. A</p> <p>See slides #1 thru #4 below for integration process flows that implements telecom pack service interfaces to an service inventory application,</p> <p>[IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business Services_Implementation_PRIVATE.pptx]</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> · Identifying the inventory-relevant information requirements to be captured for service infrastructure and service instances ; A <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceProvisioning-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <ul style="list-style-type: none"> · Identifying, establishing and maintaining service inventory repository facilities; M <p>This will have to be performed on the inventory</p>
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		<p>application itself. But this process can be automated and managed by a business process modeled and automated in IBM BPM.</p> <p>· Establishing and managing the service inventory management and information capture processes; M</p> <p>This will have to be performed on the service inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.esp the aspect of information capture process.</p> <p>IBM Telecom Pack provides interfaces for achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceProvisioning-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>See how the process integration flows would look like in the document below. Slides 5 and 6.</p> <p>[IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business_Services_Implementation_PRIVATE.pptx]</p> <p>· 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; M</p> <p>This will have to be performed on the service inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceProvisioning-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p>
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		<p>Also UML models for the service interfaces,</p> <p>IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business Services_Integration_Interfaces_PRIVATE.pptx</p> <p>Also look at slides 1 to 8 below,</p> <p>IBM_eTOM_Pkg_1.1.2.1_Evidence_TP_Service_Business Services_Implementation_PRIVATE.pptx</p> <p>· Ensuring the service inventory repository accurately captures and records all identified service infrastructure and service instance details, through use of automated or manual audits; M</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled and automated using IBM BPM.</p> <p>· Tracking and monitoring of the usage of, and access to, the service inventory repository and associated costs, and reporting on the findings; and M</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· Identifying any technical driven shortcomings of the service inventory repository, and providing input to Resource Development & Management processes to rectify these issues. M</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p>
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<p>1.1.2.1.2 - Enable Service Configuration & Activation</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM would work with a business partner like Ericsson (Telcordia), Comptel etc. ., who provide the service inventory core application capabilities.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by the service inventory management application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Planning and deployment of service infrastructure, and for ensuring availability of sufficient service infrastructure to support the Service Configuration & Activation processes. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - Partner Service Inventory Management application - and architecture models in Rational Software Architect <p>Extended Description</p> <p>1 The Enable Service Configuration & Activation processes are responsible for planning and deployment of service infrastructure, and for ensuring availability of sufficient service infrastructure to support the Service Configuration & Activation processes. The responsibilities of these processes include, but are not limited to:</p> <p>2 forecasting at an operational level service infrastructure volume requirements and run-out timeframes; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>the capacity planning associated with the deployment of new and/or modified service infrastructure; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>establishment and monitoring of organizational arrangements to support deployment and operation of</p>
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	<p>new and/or modified service infrastructure; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· creation, deployment, modification and/or upgrading of service infrastructure deployment support tools (including Service Inventory) and processes for new and/or modified service infrastructure; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· development and promulgation of service infrastructure capacity deployment rules and controls; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· authoring, reviewing and approving operational procedures developed by Service Development & Management processes prior to service infrastructure deployment; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· the testing and acceptance of new and/or modified service infrastructure as part of the handover procedure from the Service Development & Management processes to Operations; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· detecting service infrastructure operational limitations and/or deployment incompatibilities and providing requirements to address these aspects to Service</p>
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	<p>Development & Management processes; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· co-ordination and roll-out, in accordance with approved plans, of the approved new and/or modified service infrastructure; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· monitoring capacity utilization of deployed service infrastructure to provide early detection of potential service infrastructure shortfalls; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· reconfiguration and re-arrangement of under-utilized deployed service infrastructure;</p> <p>· managing recovery and/or removal of obsolete or unviable service infrastructure; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· reporting on deployed service infrastructure capacity; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· Tracking and monitoring of the service infrastructure deployment processes and costs (including where service infrastructure is deployed and managed by third parties), and reporting on the capability of the service infrastructure deployment processes; AM</p>
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		<p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· establishing and managing service provisioning notification facilities and lists to support the Service Configuration & Activation notification and reporting processes; and AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>· updating the Service Inventory of any changes to the available service infrastructure capacity. A</p> <p>IBM Telecom Pack provides interfaces for querying a service instance achieving this capability. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceProvisioning-3.1” and “ServiceInventory-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Specific interfaces include,</p> <ul style="list-style-type: none"> - ExecuteBuildPlanPT - CreateServicePT
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4.2.2 Service Configuration & Activation [1.1.2.2]

Table 4.7 Process Mappings – Service Configuration & Activation [1.1.2.2]

<p>1.1.2.2.3 - Track & Manage Service Provisioning</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>Provided as L2 Process Map in IBM Telecom Pack V75.</p> <p>Also, mapped to a process model in Order Handling Process model template.</p> <p>Implemented as sub-process for Order Handling solution scenario</p> <p>Modeled as L2 process in IBM TP Architecture Model.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>Brief description</p> <p>Ensure service provisioning activities are assigned, managed and tracked efficiently. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Extended description</p> <p>The objective of the Track & Manage Service Provisioning processes is to ensure service provisioning activities are assigned, managed and tracked efficiently.</p> <p>Responsibilities of these processes include, but are not limited to:</p> <ul style="list-style-type: none"> - Scheduling, assigning and coordinating service provisioning related activities; A <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process. A pipeline consists of the different statuses a service order goes through including design/assign, configuration of service, activation of service, work assignments etc. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are configuring. A repository is a logical collection of entities that define the business process workflow. The following entities are included in the Sterling Order Management repository:</p> <ul style="list-style-type: none"> • Pipelines • Transactions • Statuses • Conditions • Actions
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		<ul style="list-style-type: none"> • Services (Telecom Pack service invocations) <p>IBM Sterling Order Management provides a base repository for each of the system defined process types. Some of the entities within a repository are copied when creating a new document type. For more details see document below for how to define and configure pipelines for tracking and managing a service order,</p> <p>[IBM_eTOM_Pkg_1.1.2.2 _Evidence_SterlingOM_Pipelines_PRIVATE.pdf]</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “Service Provisioning” and “Service Inventory” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Inventory application such as Cramer or Activation system such as ASAP or Workforce Management & Scheduling Application such as Tivoli Maximo for Service Providers and Tivoli Maximo Asset Management Scheduler.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceInventory-3.1” and “ServiceProvisioning-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including service inventory management, service activation, workforce management, resource inventory etc. as SID based SOA components. More specially look at “Design Service”, “Process Service Order”, “Activate Service”, “Manage Service Inventory” as highlighted.</p> <p>[IBM_eTOM_Pkg_1.1.2.2 _Evidence_TP_ServiceProvisioning_BusinessServices_Int</p>
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		<p>egration_Interfaces_PRIVATE.pptx]</p> <p>Generating the respective resource order creation request(s) to Issue Resource Orders based on specific service orders; A</p> <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_ServiceOrderPipeline_PRIVATE.jpg]</p> <p><i>Pipeline determination</i> is used to set up conditions that affect which pipeline is used during the start of the business process workflow. For example, if a product order for a Voice product is received, then that product (Voice) will generate 1 service order for handling the service (POTS), which in turn will generate a resource order for handling the resources such as CPE.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_PipelineDetermination_PRIVATE.jpg]</p> <p>Transaction dependency enables you to process an order based on certain conditions defined for a transaction. It provides the ability for a transaction to allow some order lines to not be processed until certain conditions are met. These conditions can also apply to other lines in the same order. For example, a customer orders a DSL modem along with the DSL line activation service. In this scenario, the modem cannot be shipped until the account is activated. As a result, you need to sequence the order. The sequencing of the order can be based on:</p> <ul style="list-style-type: none"> - Transaction completion of certain lines, such as the account activation being completed before the modem could be shipped. - Specific dates, such as not to ship the modem until 5 days before the activation date. <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_TransactionDependency_PRIVATE.jpg]</p> <p>Escalating status of service orders in accordance with local policy; Undertaking necessary tracking of the</p>
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		<p>execution process; A</p> <p>Using IBM Sterling Order Management you can define the components used to measure and report unexpected conditions and delays in the order document’s lifecycle. Using the monitoring rule components feature you can define the parameters used to monitor orders and shipments throughout their life cycle in fulfillment process type pipelines.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_SterlingOM_Monitoring1_PRIVATE.jpg]</p> <p>Adding additional information to an existing service order; A</p> <p>You can add a new item to an existing order using the IBM Sterling Order Management Application Console.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_OrderLineAdd_PRIVATE.jpg]</p> <p>You can add or edit notes to an order by selecting the icon in the order header panel of Order Detail Screen in the IBM Sterling Order Management Application Console.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_OrderNotes_PRIVATE.jpg]</p> <p>Modifying information in an existing service order; A</p> <p>You can modify an existing item in an existing order using the IBM Sterling Order Management Application Console.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_OrderLineAdd_PRIVATE.jpg]</p> <p>You can add or edit notes to an order by selecting the icon in the order header panel of Order Detail Screen in the IBM Sterling Order Management Application Console.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_OrderNotes_PRIVATE.jpg]</p> <p>Modifying the service order status; A</p> <p>You can change the status of an order in the in the IBM</p>
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	<p>Sterling Order Management Application Console's order list page by selecting on a given order and choosing a desired status – release, cancel, remove, confirm, schedule, restore or any other user defined status.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_Change OrderStatus_PRIVATE.jpg]</p> <p>· Canceling a service order when the initiating customer order is cancelled; ; A</p> <p>You can manually change the status of an order in the in the IBM Sterling Order Management Application Console's order list page by selecting on a given order and choosing cancel status. Programmatically the same result can also be achieved by invoking the cancelMaterOrder or cancelWorkOrder API's.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_Change OrderStatus_PRIVATE.jpg]</p> <p>· Monitoring the jeopardy status of service orders, and escalating service orders as necessary; and A</p> <p>Using IBM Sterling Order Management you can define the components used to measure and report unexpected conditions and delays in the order document's lifecycle. Using the monitoring rule components feature you can define the parameters used to monitor orders and shipments throughout their life cycle in fulfillment process type pipelines.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_Sterling OM_MonitoringRules_PRIVATE.pdf]</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_Sterling OM_Monitoring1_PRIVATE.jpg]</p> <p>Also using alerts in IBM Sterling Order Management you can send a message directed to a user or an alert queue about an order or transaction that needs manual intervention. An alert can come in different formats including e-mail, faxes, and so on.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_SterlingOM_Alerts_PRIVATE.pdf]</p> <p>· Indicating completion of a service order by modifying the service order status. A</p>
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		<p>You can manually change the status of an order in the the IBM Sterling Order Management Application Console’s order list page by selecting on a given order and choosing release or a user defined status. Programmatically the same result can also be achieved by invoking the changeOrder API.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_ChangeOrderStatus_PRIVATE.jpg]</p> <p>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. A</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to integrating with S/P. These interfaces (which are categorized under “SupplierPartnerFulfillment” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any supplier/partner requisition management system to submit the orders. IBM Sterling Order Management can invoke these services from its pipelines related to service order management.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_SPFulfillment_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Shown below is the end to end Order Handling process in IBM BPM that leverages the IBM Telecom Pack service interfaces. Specifically look at the how SP interactions are exposed and managed in the process.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_TelecomPack_Evidence_OrderHandlingE2E_PRIVATE.jpg]</p>
<p>1.1.2.2.4 - Implement, Configure & Activate Service</p>	<p>Provided as L2 Process Map in IBM Telecom Pack V75. Also, mapped to a process model in Order Handling Process model template.</p>	<p>Brief Description Implement, configure and activate the specific services allocated against an issued service order. A Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Business Process Manager - IBM BPM Telecom Pack



	<p>Implemented as sub-process for Order Handling solution scenario</p> <p>Modeled as L2 process in IBM TP Architecture Model.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>- and architecture models in Rational Software Architect</p> <p>Extended Description</p> <p>The purpose of the Implement, Configure & Activate Service processes is to implement, configure and activate the specific services allocated against an issued service order. These processes are responsible for, but not limited to:</p> <ul style="list-style-type: none"> Assessing and planning the approach to be undertaken for implementation, configuration and activation; A <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to integrating with applications that can perform the functions of design/assign and planning. These interfaces (which are categorized under "ServiceProvisioning-3.1" and ServiceInventory-3.1 libraries in the Telecom Pack) can be used to wrap the fine grained API's / services exposed by any service inventory, service activation, or other service order management system to submit the request for design, assign and activation. IBM Sterling Order Management can invoke these services from its pipelines related to service order management. In the link below look under the "ServiceProvisioning-3.1" and ServiceInventory-3.1 libraries and the associated service interfaces.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Also look in this evidence document in slide #1 circled in purple for the Telecom Pack services interfaces and the taxonomy.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_ServiceProvisioning_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Shown below is the end to end Order Handling process in IBM BPM that leverages the IBM Telecom Pack service interfaces.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_TelecomPack_Evidence_OrderHandlingE2E_PRIVATE.jpg]</p> <ul style="list-style-type: none"> Re-using standard implementation, configuration and activation processes applicable to specific services; A <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that can be used to wrap the fine grained API's / services exposed by any service inventory, service activation, or other service order management system to submit the request for design, assign and activation. In the link below look under the "ServiceProvisioning-3.1" and ServiceInventory-3.1 libraries and the associated service interfaces.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Also look in this evidence document in slide #1 circled in purple for the Telecom Pack services interfaces and the taxonomy.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_ServiceProvisioning</p>
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	<p>[BusinessServices_Integration_Interfaces_PRIVATE.pptx] · Implementing, configuring and reconfiguring specific services, including customer premises equipment if part of the service provider offering. AM</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that can be used to wrap the fine grained API's / services exposed by any service configuration and resource inventory systems. In the link below look under the "ServiceProvisioning-3.1", "ServiceInventory-3.1", ResourceInventory-3.1 libraries and the associated service interfaces. [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>· Providing notifications as required if the implementation, configuration and activation activity requires a planned outage or is likely to initiate false specific service alarm event notifications; and A</p> <p>Also look in this evidence document below (pptx) and specifically look at slides #1 and #2 for the Telecom Pack services interfaces related to notifications and the taxonomy that could be used to implement notifications. [IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_ServiceProvisioning_BusinessServices_Integration_Interfaces_PRIVATE.pptx] Using IBM Sterling Order Management you can define the components used to measure and report unexpected conditions and delays in the order document's lifecycle. Using the monitoring rule components feature you can define the parameters used to monitor orders and implementation, configuration and activation related activities throughout their life cycle in fulfillment process type pipelines. [IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_SterlingOM_MonitoringRules_PRIVATE.pdf] [IBM_eTOM_Pkg_1.1.2.2_SterlingOM_Evidence_SterlingOM_Monitoring1_PRIVATE.jpg]</p> <p>· Updating the information contained in the service inventory as to the configuration of specific services and their status. A</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that can be used to wrap the fine grained API's / services exposed by any service inventory and resource inventory systems. In the link below look under the "ServiceInventory-3.1" and "ResourceInventory-3.1" libraries and the associated service interfaces. [http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html] Also look in this evidence document in slide #2 and #3 circled in yellow for the Telecom Pack services interfaces and the taxonomy.</p>
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	<p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_ServiceProvisioning_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>At the successful conclusion of these activities, the status of the specific services will be changed from allocated to activated, which means they are in-use. AM</p> <p>Also look in this evidence document in slide #4 for the Telecom Pack services interfaces and the taxonomy that could be used to implement notifications.</p> <p>[IBM_eTOM_Pkg_1.1.2.2_Evidence_TP_ServiceProvisioning_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p>
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4.3 Resource Management & Operations [1.1.3]

4.3.1 RM&O Support & Readiness [1.1.3.1]

Table 4.8 Process Mappings – RM&O Support & Readiness [1.1.3.1]

<p>1.1.3.1.5 - Manage Resource Inventory</p>	<p>IBM would work with a business partner like Ericsson (Telcordia), Comptel, Oracle etc., who provide the resource inventory core application capabilities.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by the service inventory management application in a SID based message semantics.</p>	<p>Brief Description</p> <p>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. AM</p> <p>Supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - Partner Resource Inventory Management application - and architecture models in Rational Software Architect <p>Extended Description</p> <p>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.</p> <p>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. M</p> <p>This will have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.</p> <p>Responsibilities of these processes include, but are not</p>
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		<p>limited to:</p> <ul style="list-style-type: none"> · Identifying the inventory-relevant information requirements to be captured for resource infrastructure and resource instances; AM <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.</p> <ul style="list-style-type: none"> · Identifying, establishing and maintaining resource inventory repository facilities; M <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.</p> <ul style="list-style-type: none"> · Establishing and managing the resource inventory management and information capture processes; AM <p>IBM Telecom Pack provides interfaces for querying a resource inventory for information about resources and also resource instances. See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Shown below are how those interfaces can be used to integrate with an inventory application such as Telcordia Granite.</p> <p>IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_PRIVATE.pptx</p> <p>IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_ResourceInventory.jpg</p> <p>IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_ResourceInventory-Granite.jpg</p> <ul style="list-style-type: none"> · Managing the registration and access control processes
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	<p>that enable processes to create, modify, update, delete and/or download resource data to and from the resource inventory; AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.</p> <p>· 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</p> <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack.</p> <p>· Tracking and monitoring of the usage of, and access to, the resource inventory repository and associated costs, and reporting on the findings; and AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus IBM Telecom Pack.</p> <p>· Identifying any technical driven shortcomings of the resource inventory repository, and providing input to Resource Development & Management processes to rectify these issues. AM</p> <p>This will have to be performed on the inventory application itself. But this process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus IBM Telecom Pack.</p>
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<p>1.1.3.1.7 Manage Logistics</p>	<p>IBM Sterling Logistics Management enables access to delivery plans. The Sterling Logistics Management module consists of the following components:</p> <ul style="list-style-type: none"> - Delivery Plan Console Screens - Inbound Shipment Console Screens - Outbound Shipment Console Screens 	<p>Brief Description</p> <p>Manage and control warehousing, stock level management, physical distribution and transport of purchased resources and consumable goods. A</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Logistics Management and Global Inventory modules in Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack <p>Extended Description</p> <p>The responsibility of the Manage Logistics processes is twofold - manage and control warehousing, stock management, physical distribution and transport of purchased resources and consumable goods, and monitoring, managing and reporting on the capability of the Manage Logistics processes. A</p> <p>See pages 12, 13, 17 and 18 Global_Inventory_Visibility_PRIVATE.pdf</p> <p>See slides 1 to 4 in below, IBM_eTOM_Pkg_1.1.3.1_Logistics_Inventory_PRIVATE.pptx</p> <p>These processes are applicable for both resources managed by the processes in the RM&O processes as well as the myriad of consumable goods used by the enterprise in its day-to-day activities, such as paper, stationery, etc. AM</p> <p>See pages 12, 13, 17, 18, 37 and 38 in below, Global_Inventory_Visibility_PRIVATE.pdf</p> <p>These processes manage all operational processes associated with the storage and distribution of purchased resources and consumable goods from the supplier. In addition, these processes are responsible for initiating orders for consumable goods, spare parts and for monitoring and reporting on progress of consumable goods orders. The actual order placed is managed through the appropriate S/PRM processes. AM</p> <p>See pages 12, 13, 17, 18, 37 and 38 in below,</p>
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		<p>Global_Inventory_Visibility_PRIVATE.pdf</p> <p>Logistics_Management_PRIVATE</p> <p>These purchased items may be temporarily stored in enterprise, vendor or third party managed warehouses before being delivered to smaller distribution points, or being delivered direct to site. Or alternatively they may be delivered directly to site from supplier's facilities. These processes are responsible for determining the distribution path for individual resources and consumable goods. AM</p> <p>See pages 12, 13, 17 and 18 Global_Inventory_Visibility_PRIVATE.pdf</p> <p>See 60, 62, 68 Logistics_Management_PRIVATE.pdf</p> <p>These processes are responsible for the internal operational processes associated with managing a warehouse including aspects such as yard management, dock management, pick management, etc. These processes track all goods stored in the warehouse from the time of inward delivery to outwards dispatch. AM</p> <p>See 61 thru 64, 80 thru 83, 108 thru 111 Logistics_Management_PRIVATE.pdf</p> <p>These processes manage the co-ordination and control of transport infrastructure, including land, air and sea transport capabilities. The transport may be owned and managed by the enterprise, the vendor or a third-party. Different parties may be responsible for different aspects of the overall end-end transport requirements, i.e., a vendor may deliver to a warehouse, and a third party from the warehouse to site. These processes are responsible for determining truck loads, distribution routes, etc. AM</p> <p>See 3 thru 16 Logistics_Management_PRIVATE.pdf</p> <p>To the extent that the above processes are managed by either the supplier, or by third parties, the enterprise processes are responsible for initiating requests, and for monitoring, tracking and reporting on the operation of</p>
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		<p>the supplier, and/or third party. AM</p> <p>See pages 3 Global_Inventory_Visibility_PRIVATE.pdf</p> <p>IBM BPM can track and monitor this process.</p> <p>Each of the above processes has sub-processes responsible for:</p> <ul style="list-style-type: none">· Managing the registration and access control processes that enable enterprise processes to create, modify, update, delete and/or download individual requests into supplier and/or third party systems associated with any of the above processes;· Managing the registration and access control processes that enable supplier and/or third party processes to create, modify, update, delete and/or download relevant details into enterprise systems associated with any of the above processes;· Managing of issuing and re stocking of spares; A· Tracking and monitoring of the usage of, and access to, the specific process and associated costs of the specific processes, and reporting on the findings; and· Identifying any technical driven shortcomings of the specific automated support capabilities, and providing input to Resource Development & Management processes to rectify these issues.
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4.3.2 Resource Provisioning [1.1.3.2]

Table 4.9 Process Mappings – Resource Provisioning [1.1.3.2]

<p>1.1.3.2.1 - Allocate & Install Resource</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p> <p>IBM Maximo for Service Providers v7.5 provides through the Work Orders module allows you to you create and manage work orders for resource installation and locations.</p>	<p>Brief description</p> <p>Allocate specific resources required to support a specific service AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process. A pipeline consists of the different statuses a service order goes through including design/assign, configuration of service, activation of service, work assignments etc. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are configuring. A repository is a logical collection of entities that define the business process workflow. The following entities are included in the Sterling Order Management repository:</p> <ul style="list-style-type: none"> • Pipelines • Transactions • Statuses • Conditions • Actions • Services (Telecom Pack service invocations) <p>IBM Sterling Order Management provides a base repository for each of the system defined process types. Some of the entities within a repository are copied when creating a new document type. For more details see document below for how to define and configure pipelines for tracking and managing a service order,</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_SterlingOM_Pipelines_PRIVATE.pdf]</p>
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	<p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “Service Provisioning”, “Resource Configuration”, “Resource Inventory” and “Service Inventory” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Inventory application such as Cramer or Activation system such as ASAP.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceInventory-3.1”, “ServiceProvisioning-3.1”, “ResourceInventory-3.1”, and “ResourceConfiguration-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including service inventory management, service activation, workforce management, resource inventory etc. as SID based SOA components.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Service_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Extended description</p> <p>The objective of the Allocate & Deliver Resource processes is to allocate specific resources required to support a specific service. These activities include but are not limited to:</p> <ul style="list-style-type: none"> Investigating the ability to be able to satisfy specific service orders as a part of a feasibility check; AM
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	<p>Using IBM Sterling Order Management you can define, model and execute pipelines for checking feasibility for a given product and service. This pipeline in turn can invoke the SOA integration services exposed by IBM Telecom Pack. The interfaces for achieving this capability from the Telecom Pack include,</p> <ul style="list-style-type: none"> - performServiceOrderFeasibility - checkTechnicalAvailability <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ServiceProvisioning-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular service inventory or resource domain management application that participates in the service order lifecycle.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Reserving or allocating specific resources in response to issued resource orders; AM</p> <p>The IBM Telecom Pack provides the following interfaces that can be integrated with any resource inventory application (Telcordia Granite, Cramer, IBM Maximo) for achieving this capability from the Telecom Pack are provided in the document below in slide #1</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Confirming availability of, or initiating an order for, equipment or software with a Supplier/Partner; and AM</p> <p>The IBM Telecom Pack provides the following interfaces that can be integrated with any resource inventory</p>
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	<p>application (Telcordia Granite, Cramer, IBM Maximo) or with a supplier/partner application (as an order request) for achieving this capability from the Telecom Pack are provided in the document below in slide #1</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_SP_BusinessServices_Integration_Interfaces_PRIVATE .pptx]</p> <p>Evidence document below shows the implementation of resource inventory related interfaces from the Telecom Pack, implemented on the IBM BPM platform.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_ResourceInventory.jpg]</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1” and “SupplierPartnerFulfillment-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Installing and commissioning specific resources following delivery. AM</p> <p>Using IBM Sterling Order Management you can define, model and execute pipelines for installing and commissioning resources. This pipeline in turn can invoke the SOA integration services exposed by IBM Telecom Pack. The IBM Telecom Pack provides the following interfaces that can be integrated with any resource inventory or workforce management application. Installation of resources can be achieved using Telecom Pack based interfaces including,</p> <ul style="list-style-type: none"> - submitInstallationWorkOrder - cancelWorkOrder - getWorkOrderStatus - SubmitRepairWorkOrder - and many more <p>These interfaces can be found under “ResourceInventory-3.1” after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p>
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		<p>Sterling Order Management can create work orders in Maximo via Telecom Pack.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Maximo_Evidence_ServiceOrder_PRIVATE.jpg]</p> <p>Where the Allocate & Deliver Resource processes are requested by a resource order issued as part of a pre-order feasibility check, these processes determine whether there are adequate specific resources available to fulfill the request. Where there are not sufficient specific resources available, these processes may initiate enquiries using the relevant S/PRM and/or Resource Support & Readiness processes to determine lead times for specific resource availability. Depending on business rules, and on any specific levels of commitment contained in the initiating service order, these processes may reserve specific resources linked to the initiating service order for a period of time, and releasing them when the time period has expired. These processes are responsible for creating a response to the initiating processes with respect to the feasibility assessment. A</p> <p>The IBM Telecom Pack provides the following interfaces that can be integrated with any resource inventory or workforce management application. Installation of resources can be achieved using Telecom Pack based interfaces including,</p> <ul style="list-style-type: none"> - CheckTechnicalAvailability - CheckResourceCapacity - SubmitSPOrder (for issuing a SP order) - and many more <p>These interfaces can be found under “ResourceInventory-3.1” and SupplierPartnerFulfillment-3.1 after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Where the Allocate & Deliver Resource processes are requested by a resource order issued in response to a confirmed service order, these processes are responsible for allocating the specific resources required to satisfy the initiating service order. Any previously reserved specific resources are marked as allocated. AM</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_ResourceInvento</p>
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	<p>ry-Granite.jpg]</p> <p>These process are responsible for initiating, using the S/PRM processes, resource requisition orders for any specific resources in shortfall. Sufficient information is supplied with the resource requisition orders to ensure that the appropriate specific resources are delivered to the appropriate location for installation and configuration. This may include, for example, a central office, a transmission room, or the customer premise.</p> <p>AM</p> <p>The IBM Telecom Pack provides the following interfaces that can be integrated with any S/P or resource inventory or workforce management application. Installation of resources can be achieved using Telecom Pack based interfaces including,</p> <ul style="list-style-type: none"> - CheckTechnicalAvailability - CheckResourceCapacity - SubmitSPOrder (for issuing a SP order) - and many more <p>These interfaces can be found under “ResourceInventory-3.1” and SupplierPartnerFulfillment-3.1 after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p> <p>Using IBM Sterling Order Management you can define, model and execute pipelines for installing and commissioning resources. This pipeline in turn can invoke the SOA integration services exposed by IBM Telecom Pack.</p> <p>Following delivery, these processes are responsible for installing and commissioning specific resources, and updating the resource inventory as part of these processes. Where installation of the specific resources requires an upfront major resource infrastructure, the installation of both the resource infrastructure and specific resources may be undertaken under the control of the Support Resource Provisioning processes.</p> <p>AM</p> <p>IBM Sterling Order Management can issue a service or work order in IBM Maximo to manage the install and commissioning process.</p>
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		<p>See interfaces from Telecom Pack that Sterling Order Management can invoke</p> <p>IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_WorkforceMgmt_BusinessServices_Integration_Interfaces_PRIVATE.pptx</p> <p>See capabilities in Maximo in slides 8 to 11</p> <p>IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx</p> <p>The Allocate & Deliver Resource processes will closely interact with the Manage Resource Inventory processes to determine availability of physical and logical specific resources to select from, thereby applying specific selection criteria. AM</p> <p>The IBM Telecom Pack provides the following interfaces that can be integrated with any S/P or resource inventory or workforce management application. Installation of resources can be achieved using Telecom Pack based interfaces including,</p> <ul style="list-style-type: none"> - CheckTechnicalAvailability - CheckResourceCapacity - SubmitSPOrder (for issuing a SP order) - and many more <p>These interfaces can be found under “ResourceInventory-3.1” and SupplierPartnerFulfillment-3.1 after opening the link.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html]</p>
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<p>1.1.3.2.2 Configure & Activate Resource</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Configure and activate the specific resources allocated against an issued resource order AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process. A pipeline consists of the different statuses a service order goes through including design/assign, configuration of service, activation of service, work assignments etc. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are configuring. A repository is a logical collection of entities that define the business process workflow. The following entities are included in the Sterling Order Management repository:</p> <ul style="list-style-type: none"> • Pipelines • Transactions • Statuses • Conditions • Actions • Services (Telecom Pack service invocations) <p>IBM Sterling Order Management provides a base repository for each of the system defined process types. Some of the entities within a repository are copied when creating a new document type. For more details see document below for how to define and configure pipelines for tracking and managing a service order,</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_SterlingOM_Pipeline_s_PRIVATE.pdf]</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are</p>
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	<p>pertinent to this eTOM L3. These interfaces (which are categorized under “Service Provisioning”, “Resource Configuration”, “Resource Inventory” and “Service Inventory” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Inventory application such as Cramer or Activation system such as ASAP.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1”, and “ResourceConfiguration-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including resource configuration, resource inventory etc. as SID based SOA components.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Service_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Extended Description</p> <p>The objective of the Configure & Activate Resource Processes is to configure and activate the specific resources allocated against an issued resource order. These processes are responsible for, but not limited to:</p> <p>Assessing and planning the approach to be undertaken for configuration and activation; M</p> <p>Will have to be handled by an external resource domain or outside plant application. However there are interfaces in the Telecom Pack that can automate those</p>
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		<p>steps.</p> <p>Re-use standard configuration and activation processes applicable to specific resources; A</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See libraries “ResourceInventory-3.1”, and “ResourceConfiguration-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including resource configuration, resource inventory etc. as SID based SOA components.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_ResourceInventory-Granite.jpg]</p> <p>Providing notifications as required if the activation activity requires a planned outage or is likely to initiate false specific resource alarm event notifications; and AM</p> <p>Using IBM BPM and Telecom Pack the notifications coming back from the applications can be handled and/or routed appropriately.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/ci/cs/lst/custnt/r_classdiag.html?resultof=%22%6e%6f%74%69%66%69%63%61%74%69%6f%6e%73%22%20%22%6e%6f%74%69%66%22%20</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/ci/cs/lst/custnt/r_compdiag.html?resultof=%22%6e%6f%74%69%66%69%63%61%74%69%6f%6e%73%22</p>
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<p>1.1.3.2.9 Recover Resource</p>	<p>IBM Sterling Order Management provides functionality to intelligently orchestrate, track and manage and broker service orders across many disparate OSS/BSS leveraging the integration business services exposed by IBM Telecom Pack.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>Brief Description</p> <p>Recover specific resources that are no longer required. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Sterling Order Management - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>IBM Sterling Order Management allows you to define, model and execute pipelines. A process type pipeline is a series of transactions and statuses that guide an document types, such as a Sales Order, Product Order and in this case the Service Order through a predefined process. A pipeline consists of the different statuses a service order goes through including design/assign, configuration of service, activation of service, work assignments etc. You can also set up transactions consisting of events, actions, and conditions, as they pertain to the pipeline you are configuring. A repository is a logical collection of entities that define the business process workflow. The following entities are included in the Sterling Order Management repository:</p> <ul style="list-style-type: none"> • Pipelines • Transactions • Statuses • Conditions • Actions • Services (Telecom Pack service invocations) <p>IBM Sterling Order Management provides a base repository for each of the system defined process types. Some of the entities within a repository are copied when creating a new document type. For more details see document below for how to define and configure pipelines for tracking and managing a service order,</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_SterlingOM_Pipelines_PRIVATE.pdf]</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are</p>
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	<p>pertinent to this eTOM L3. These interfaces (which are categorized under “Service Provisioning”, “Resource Configuration”, “Resource Inventory” and “Service Inventory” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Inventory application such as Cramer or Activation system such as ASAP.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1”, and “ResourceConfiguration-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including resource configuration, resource inventory etc. as SID based SOA components.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Service_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Extended Description</p> <p>The responsibility of the Recover Resource processes is to recover specific resources that are no longer required. AM</p> <p>See new evidence document below that provides detailed process flows for these business services, IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_Impementation_PRIVATE.pptx</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Service_Business</p>
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		<p>Services_Integration_Interfaces_PRIVATE.pptx]</p> <p>These processes follow recovery plans specified by the supplier/partner, or follow recovery plans developed by the service provider. Where appropriate recovery plans are not available these processes are responsible for developing appropriate recovery plans. M</p> <p>Will have to be manually performed with overall process automation using IBM BPM using human tasks</p> <p>Where recovery of resources is likely to impact other in-use specific resources or specific services, this process is responsible for providing appropriate notification of the recovery proposal and ensuring authorization is received to proceed with the recovery plan. When the recovery activity is about to commence, these processes are responsible for notifying when recovery work is commencing and when it is completed. M</p> <p>When recovered, the specific resources will be marked as unallocated. A</p> <p>2.1 Updated with a new evidence document, which provides specific process flows for recovering a resource.</p> <p>2.2 IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_Impementation_PRIVATE.pptx</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1”, and “ResourceConfiguration-3.1” after opening the link. These services interfaces are implemented and exposed to Sterling Order Management pipelines by integrating with a particular OSS application that participates in the service order lifecycle.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any OSS application involved in the service order lifecycle including resource</p>
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		<p>configuration, resource inventory etc. as SID based SOA components.</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Resource_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>[IBM_eTOM_Pkg_1.1.3.2_Evidence_TP_Service_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p>
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4.3.3 Workforce Management [1.1.3.7]

Table 4.10 Process Mappings – Workforce Management [1.1.3.7]

<p>1.1.3.7.1 - Manage Appointment Schedule</p>	<p>IBM Maximo Asset Management Scheduler to visually manage and schedule work and resources at your organization.</p> <p>IBM Maximo for Service Providers v7.5 provides through the Work Orders module allows you to you create and manage work orders for assets and locations.</p> <p>IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>Brief description</p> <p>Manages the appointment schedule of assignable staff. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Maximo Asset Management Scheduler - IBM Maximo for Service Providers - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Extended description</p> <p>The responsibilities of the Manage Appointment Schedule processes include the ability to view the availability of appropriate assignable staff as well as being able to schedule an appointment. Both the viewing and the scheduling may be based on availability of a collection of staff and not a specific person. Similarly, times could be windows of time (i.e. - AM or PM) or a specific time. A</p> <p>IBM Maximo Asset Management Scheduler lets to visually manage and schedule work and resources at your organization. You use the Scheduler application to manage and schedule work and resources at your organization. You can view the schedules in the Gantt view to manage them visually. IBM® Maximo® Asset Management Scheduler helps you to identify possible scheduling conflicts that might arise from multiple concurrent work orders that need the same resources. You can schedule to a group-capacity level or to the lead-craft level. You can move work records in bulk. For example, you can reschedule all unfinished work from the previous week to the next week. You can also match resources to requirements so that you can address exceptions rather than manually schedule all assignments. The Scheduler application manages constraints to ensure that your work is scheduled properly. For example, you can use task-precedence constraints to specify that some work (such as painting a</p>
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		<p>wall) cannot be started until other work (sanding the wall) is complete. Similarly, you can use the date constraint feature to ensure that tasks that are scheduled to start on a certain date do not supersede tasks that are scheduled to start on an earlier date. Critical path methodology (CPM) can be used to track these dependencies while you make schedule changes, and recalculate the schedule accordingly.</p> <p>See sections Configuring Maximo Asset Management Scheduler and Creating schedules in the product documentation below.</p> <p>[http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.msc.doc/welcome.html]</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under “Resource Inventory” library in the Telecom Pack) can be used to wrap the fine grained API’s / services exposed by any Workforce Management & Scheduling Application such as Tivoli Maximo for Service Providers and Tivoli Maximo Asset Management Scheduler.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “ResourceInventory-3.1” after opening the link.</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any workforce management application IBM to adjust a customer bill as SID based SOA components. More specially look at “Manage Appointment” and “Process Work Order”.</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p>
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		<p>See slide #3 in the evidence below, [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx]</p>
<p>1.1.3.7.3 - Track & Manage Work Order</p>	<p>IBM Maximo Asset Management Scheduler to visually manage and schedule work and resources at your organization. IBM Maximo for Service Providers v7.5 provides through the Work Orders module, allows you to you create and manage work orders for assets and locations. IBM BPM Telecom Pack provides interfaces that wrap the API's and interfaces exposed by any workforce management application in a SID based message semantics.</p>	<p>Brief Description Track & Manage Work Order processes are responsible for monitoring the execution of assigned manual activities to employees and/or third parties, detecting potential problems with completing the work, and requesting Create & Assign Work Order to reallocate manual activities to solve the issue. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM Maximo Asset Management Scheduler - IBM Maximo for Service Providers - IBM Business Process Manager - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>IBM Maximo for Service Providers v7.5 provides through the Work Orders module allows you to you create and manage work orders for assets and locations. [http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.spr.nav.doc/mods_apps/c_ctr_spr_mod_wo.html]</p> <p>The integration layer provided by IBM BPM and IBM BPM Telecom Pack provides the following SID based and TAM mapped business service interfaces that are pertinent to this eTOM L3. These interfaces (which are categorized under "Resource Inventory" library in the Telecom Pack) can be used to wrap the fine grained API's / services exposed by any Workforce Management & Scheduling Application such as Tivoli Maximo for Service Providers and Tivoli Maximo Asset Management Scheduler.</p> <p>See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library "ResourceInventory-3.1" after opening the link. http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <p>See document below for the service interface that are provided by Telecom Pack and those that expose the fine grained interfaces exposed by any workforce management application IBM to adjust a customer bill as SID based SOA components. More specially look at "Manage Appointment" and "Process Work Order". [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_BusinessServices_Integration_Interfaces_PRIVATE.pptx]</p> <p>Extended Description</p>

	<p>Track & Manage Work Order processes are responsible for monitoring the execution of assigned manual activities to employees and/or third parties as well as detecting problems with how the various assignments are progressing, requesting Create & Assign Workforce to reallocate resources to work activities as needed. Responsibilities of these processes include, but are not limited to: A</p> <p>Within the IBM Tivoli Maximo for Service Providers, Work Orders module, there is the <i>Work Order Tracking</i> application. This will allow you to create and manage work orders for assets and locations. When you create a work order, you initiate the maintenance management process and create a historical record of the work requested and performed.</p> <p>[http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.spr.doc/pluspwo/c_wo_tracking_application.html]</p> <p>See slide #1 through slide #9 in the evidence below,</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx]</p> <p>You use the <i>Service Requests</i> application to manage requests for services that involve an asset or location in your enterprise. For example, you might receive a request to upgrade the computer software on the notebook for a user, or for all users at certain locations.</p> <p>[http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.spr.doc/pluspsr/c_sr_application.html]</p> <p>You use the <i>Activities and Tasks</i> application to plan, to review, and to manage activities and tasks. An activity initiates the work process and creates a historical record of the work being performed. Activities are created in the Incidents and Problems applications. A task is a specific unit of work on a work order.</p> <p>[http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.spr.doc/pluspactvt/c_activities_tasks_application.html]</p> <p>Response plans feature ensure standard responses to work orders. It specifies the actions and notifications that are performed for the work order. It can also assign an owner and vendor and apply a job plan to the work order.</p> <p>Also to coordinate, management and report on the end to end workforce management related activities, IBM BPM allows you to choreograph and orchestrate the activities. These processes can be automated using IBM Business Process Manager as an automated process that turn leverages the service interfaces exposed by Telecom Pack.</p> <p>[http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.wbpm.wle.widget.doc/portalhelp/topic/intro.html]</p> <p>Monitoring the execution of assigned activities, including the various states of dispatch, complete, suspend, cancel, etc. as well as requesting work reassignments to Create & Assign Work Order as required; A</p>
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		<p>See Work Order Tracking, Service Requests and Activities and Tasks explanation from above. See slide #1, #2 and #11 in the evidence below, [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx] Establishing and managing fast-track and jeopardy re-assignment capabilities to allow for modification of work assignments as required to meet jeopardy or other high priority conditions; A See Work Order Tracking, Service Requests and Activities and Tasks explanation from above. See slide #1 through slide #9 in the evidence below, [IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx] Managing the registration and access control processes that enable processes to create, modify, update, delete and/or download scheduling and work assignment data to and from the workforce management system(s); M In IBM Maximo you use the Person Groups application to specify that a group member for a specific organization or site must be used when making workflow assignments. Workflow assignments are made to roles. Different workers can perform the same role on different shifts. Creating person groups for roles such as "supervisor" or "safety engineer" simplifies a workflow process. Creating person groups also reduces the need for revisions as individuals move in and out of roles. Workflow assignments are based on entries in the person group role record. If the Broadcast check box is selected on the role record, the task is assigned to all members of the person group. See link below, http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mbs.doc/gp_wkflow/c_tasks_persongroups.html http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mbs.doc/gp_wkflow/c_roles_records.html http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mbs.doc/role/c_types_of_roles.html You can use the Users application to manage users. User records contain user names, passwords, and security profiles that determine the applications, options, and data to which a user can access. To manage security settings and to grant user privileges, you can assign users to security groups http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mbs.doc/user/t_assign_users_security_groups.html Establishing and managing information transfer between the enterprise workforce management system(s) and those of external third parties (when the infrastructure is owned and operated by third parties); A IBM Maximo Enterprise Adapter connects IBM Maximo Asset Management with either Oracle applications or SAP</p>
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	<p>applications. You can share and exchange information between Maximo Asset Management and either of these systems in real time or in batch mode. The adapter is a component of the Maximo Asset Management integration framework, which includes a toolkit and predefined components to support flexible integration and configuration options.</p> <p>[http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mea.nav.doc/welcome.html]</p> <p>For other applications a service provider, custom adapters can be written using the IBM Maximo Integration Framework or IBM BPM's enterprise service bus capabilities can be used to integrate with those applications.</p> <p>The IBM Maximo integration framework includes predefined content that enables integration with a number of business objects, and a tool kit that you can use to extend predefined integration content and to develop new integration points. http://publib.boulder.ibm.com/infocenter/tivihelp/v49r1/topic/com.ibm.mbs.doc/gp_intfrmwk/c_if_overview.html</p> <p>Ensuring workforce management system(s) accurately captures and records all assignment and work scheduling details, through use of automated or manual audits; A</p> <p>See Work Order Tracking, Service Requests and Activities and Tasks explanation from above.</p> <p>See slide #3, #6, #8 and #11 in the evidence below,</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx]</p> <p>Tracking and monitoring of the usage of, and access to, the workforce management system(s) and associated costs of the Manage Workforce processes, and A</p> <p>See Work Order Tracking, Service Requests and Activities and Tasks explanation from above.</p> <p>See slide #1, #2, #3 in the evidence below,</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx]</p> <p>Identifying any technical driven shortcomings of the workforce management system(s), and providing input to Resource Development & Management processes to rectify these issues. A</p> <p>See Work Order Tracking, Service Requests and Activities and Tasks explanation from above.</p> <p>Thru monitoring and reports. See slide #1, #2, #3 in the evidence below,</p> <p>[IBM_eTOM_Pkg_1.1.1.11_Evidence_TP_WorkforceMgmt_Maximo_PRIVATE.pptx]</p>
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4.4 Marketing & Offer Management [1.2.1]

4.4.1 Product & Offer Development & Retirement [1.2.1.5]

Table 4.11 Process Mappings – Product & Offer Development & Retirement [1.2.1.5]

<p>1.2.1.5.5 - Develop Detailed Product Specifications</p>	<p>IBM® InfoSphere® Master Data Management Collaboration Server provides a highly scalable, enterprise Product Information Management (PIM) solution. It helps establish a single, integrated, consistent view of products and services information inside and outside of an enterprise.</p> <p>IBM BPM Telecom Pack provides interfaces that wraps the API's and interfaces exposed by IBM® InfoSphere® Master Data Management Collaboration Server and also the outbound bound applications it needs to integrate with in a SID based message semantics.</p>	<p>Brief description</p> <p>Develop and document the detailed product-related technical, performance and operational specifications, and customer manuals. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM InfoSphere Master Data Management Collaboration Server (MDMCS) - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Extended description</p> <p>The Develop Detailed Product Specifications processes develop and document the detailed product-related technical, performance and operational specifications, and customer manuals. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>These processes develop and document the required product features, the specific service and resource requirements and selections, the specific performance and operational requirements and support activities, any product specific data required for the systems and network infrastructure. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>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</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p>
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		<p>Data Modeling and Tooling</p> <p>IBM MDMCS provides the ability to define the specifications of attributes to define a product, as well as services and offers. Based on required definitions, all attributes related to a product, such as technical and operational attributes, as well as the association of unstructured data such as customer manuals, can be easily associated. Given MDMCS's very flexible data model, a pre-defined SID-compliant model has been developed and deployed at several telcos. The model is also extensible to the customer's needs in order to accommodate additional attributes such as a mapping to a products "legacy" definition. Adding and modifying attributes and entities are managed at an object level, on top of the low-level database modeling, very easily with use of the MDMCS administrative screens or even through a workbench project which can be managed within either RSA or Eclipse.</p> <p>Sample Specifications Defined in MDMCS</p> <div style="border: 1px solid #ccc; padding: 5px;"> <p>▼ Details for Service Attributes</p> <p>Spec Type Localized</p> <p>Associated Catalogs</p> <hr/> <p>Service Attributes +</p> <ul style="list-style-type: none"> Id Name + - Description + - Version + - <hr/> <p>Characteristic Attributes +</p> <ul style="list-style-type: none"> Name Type + - Default Value + - Max Size + - Scale + - Min Value + - Max Value + - Possible Value + - Unit Of Measurement + - </div> <p>Sample Catalogs Managed Within MDMCS</p>
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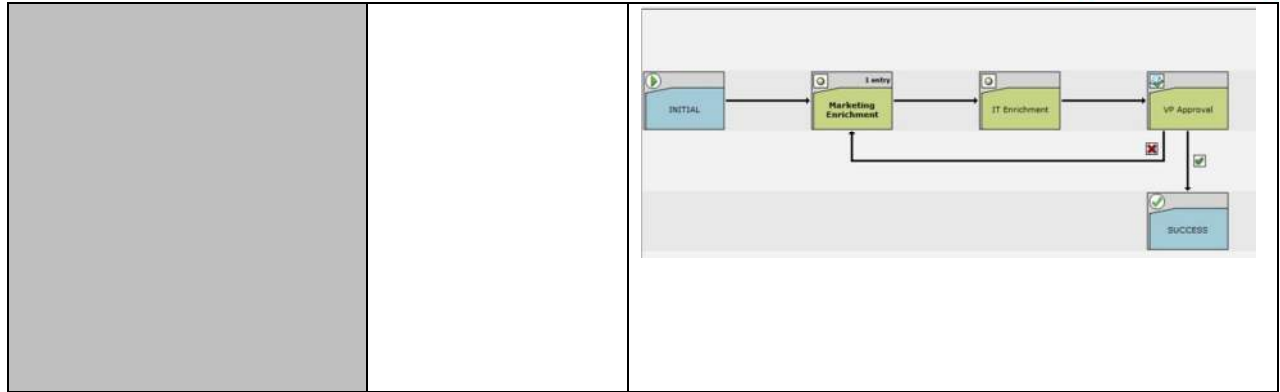
	<div data-bbox="812 210 1323 640" style="border: 1px solid #ccc; padding: 5px;"> <p>Modules <input type="text" value="Search"/></p> <p>Please select a module to add + ↻</p> <ul style="list-style-type: none"> ▶ Characteristic Catalog ✕ ▶ Resource Catalog ✕ ▶ Service Catalog ✕ ▶ Product Catalog ✕ ▶ Offering Catalog ✕ ▶ Relationship Catalog ✕ ▶ Pricing Catalog ✕ ▶ Rule Catalog ✕ </div> <div data-bbox="812 709 1003 741" style="font-weight: bold;"> <p><u>Business Process</u></p> </div> <div data-bbox="812 756 1450 1178"> <p>The details of how these attributes, within a specification and respective values of a product or other entity, are managed by MDMCS so that a business or IT user can leverage the tooling to deploy. Common tasks would typically consist of defining a new catalog based on a pre-built specification or modifying/adding attributes to a new or existing specification. Security is fully enforced during the definitions of specifications and their respective catalogs (or hierarchies, for that matter). The typical modeler would be an MDM administrator who is trained in working with the tools, as well as deploying configurations. The concept of users, roles, and access control groups is employed to accomplish this.</p> </div> <div data-bbox="812 1192 1312 1224" style="font-weight: bold;"> <p><u>Sample User Console Enforced With MDMCS</u></p> </div> <div data-bbox="812 1239 1372 1659" style="border: 1px solid #ccc; padding: 5px;"> <p>▼ User Console [Results 1 - 20 of 63]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Select</th> <th>User name</th> <th>Firstname</th> <th>Lastname</th> <th>LDAP URL</th> <th>Entry DN</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/></td><td>Abeg</td><td>Ahmer</td><td>Beg</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>achand</td><td>Abhi</td><td>Chand</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>Admin</td><td>ic</td><td>Admin</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>agossam</td><td>Akash</td><td>Gossam</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>JMoore</td><td>Aaron</td><td>Moore</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>apandey</td><td>Ajay</td><td>Pandey</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>asephagn</td><td>Abhi</td><td>Sephagn</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>Basic</td><td>ic</td><td>Basic</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>BDVJemgr</td><td>BDVLife</td><td>Manager</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>BDVJemkt</td><td>BDVLife</td><td>Marketing</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>BDVingr</td><td>BDV</td><td>Manager</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>BDVwkr</td><td>BDV</td><td>Marketing</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>BPavlik</td><td>Brook</td><td>Pavlik</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>Brosse</td><td>Brosse</td><td>User</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>Simpson</td><td>Bart</td><td>Simpson</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>CCL</td><td>Carolyn</td><td>Carlin-Lane</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>Deployment</td><td>Deployment</td><td>Manager</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>SIT</td><td>SIT</td><td>User</td><td></td><td></td></tr> <tr><td><input type="checkbox"/></td><td>SStrachan</td><td>Strachan</td><td>Diane</td><td></td><td></td></tr> </tbody> </table> </div> <div data-bbox="812 1722 1312 1753" style="font-weight: bold;"> <p><u>Sample Role Console Enforced With MDMCS</u></p> </div> <div data-bbox="812 1768 1437 1932" style="border: 1px solid #ccc; padding: 5px;"> <p>▼ Role Console [Results 1 - 20 of 29]</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Select</th> <th>Name</th> <th>Description</th> <th>Assigned to</th> </tr> </thead> <tbody> <tr><td><input type="checkbox"/></td><td>BDV Lite Marketing Manager Role</td><td>Marketing Manager Role</td><td>1 user</td></tr> <tr><td><input type="checkbox"/></td><td>BDV Lite Marketing User Role</td><td>Marketing User Role</td><td>1 user</td></tr> <tr><td><input type="checkbox"/></td><td>BDV Lite Power User Role</td><td>Power User Role</td><td>3 users</td></tr> <tr><td><input type="checkbox"/></td><td>BDV Marketing Manager Role</td><td>Marketing Manager Role</td><td>1 user</td></tr> <tr><td><input type="checkbox"/></td><td>BDV Marketing User Role</td><td>Marketing User Role</td><td>1 user</td></tr> <tr><td><input type="checkbox"/></td><td>BDV Power User Role</td><td>Power User Role</td><td>2 users</td></tr> </tbody> </table> </div>	Select	User name	Firstname	Lastname	LDAP URL	Entry DN	<input type="checkbox"/>	Abeg	Ahmer	Beg			<input type="checkbox"/>	achand	Abhi	Chand			<input type="checkbox"/>	Admin	ic	Admin			<input type="checkbox"/>	agossam	Akash	Gossam			<input type="checkbox"/>	JMoore	Aaron	Moore			<input type="checkbox"/>	apandey	Ajay	Pandey			<input type="checkbox"/>	asephagn	Abhi	Sephagn			<input type="checkbox"/>	Basic	ic	Basic			<input type="checkbox"/>	BDVJemgr	BDVLife	Manager			<input type="checkbox"/>	BDVJemkt	BDVLife	Marketing			<input type="checkbox"/>	BDVingr	BDV	Manager			<input type="checkbox"/>	BDVwkr	BDV	Marketing			<input type="checkbox"/>	BPavlik	Brook	Pavlik			<input type="checkbox"/>	Brosse	Brosse	User			<input type="checkbox"/>	Simpson	Bart	Simpson			<input type="checkbox"/>	CCL	Carolyn	Carlin-Lane			<input type="checkbox"/>	Deployment	Deployment	Manager			<input type="checkbox"/>	SIT	SIT	User			<input type="checkbox"/>	SStrachan	Strachan	Diane			Select	Name	Description	Assigned to	<input type="checkbox"/>	BDV Lite Marketing Manager Role	Marketing Manager Role	1 user	<input type="checkbox"/>	BDV Lite Marketing User Role	Marketing User Role	1 user	<input type="checkbox"/>	BDV Lite Power User Role	Power User Role	3 users	<input type="checkbox"/>	BDV Marketing Manager Role	Marketing Manager Role	1 user	<input type="checkbox"/>	BDV Marketing User Role	Marketing User Role	1 user	<input type="checkbox"/>	BDV Power User Role	Power User Role	2 users
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type="checkbox"/>	view items	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	add items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	clone items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	modify items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	delete items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	reorganize items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	summary items	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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edit catalog views	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																							
view items	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
add items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
clone items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
modify items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
delete items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
reorganize items	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
summary items	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
export	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
attributes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
differences	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
rollback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																																																							
search	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																																																																																							

<p>1.2.1.5.6 - Manage Product Development</p>	<p>Brief Description</p> <p>Ensure the co-coordinated delivery in line with the approved business case of all required product capabilities for that business case across the enterprise. AM</p> <p>Fully supported based on the following components from the solution</p> <ul style="list-style-type: none"> - IBM InfoSphere Master Data Management Collaboration Server (MDMCS) - IBM BPM Telecom Pack - and architecture models in Rational Software Architect <p>Business processes are defined in order to manage product life cycles within DMCS. The execution of the process typically consists of:</p> <ol style="list-style-type: none"> (1) development of the attributes and relationships, based on the tooling mentioned in 1.2.1.5.5, (2) identification of owners of attributes. Once these owners have been established, workflows can be modeled according to stakeholder needs (who modifies what about a product) <p>Extended Description</p> <p>The Manage Product Development processes ensure the co-coordinated delivery in line with the approved business case of all required product capabilities for that business case across the enterprise. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>These processes use project management disciplines to deliver the necessary capabilities, including process development, specific systems & network infrastructure developments, specific channel developments, specific operational procedures, etc. required to support the new product. It is predominantly a program/project management function, with the detailed management of individual capability delivery managed through separate processes in other horizontal process groupings. AM</p>
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	<p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>Note that delivery of products within the context of existing commercial arrangements is managed through the Supply Chain Development and Change Management process. If new suppliers/partners are required, the Supply Chain Capability Delivery process is used to deliver the necessary commercial arrangements. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>IBM Telecom Pack provides interfaces to integrate and request a S/P’s catalog for the necessary commercial arrangements . See link below for publicly available documentation on and the service interfaces that are packaged as part of the Telecom Pack libraries. See library “SupplierPartnerCatalog-3.1” after opening the link and the message definitions to</p> <p>http://publib.boulder.ibm.com/infocenter/dmndhelp/v7r5mx/topic/com.ibm.ws.icp.telopr.doc/tel/opr/opdev/reference/r_apdixb.html</p> <ul style="list-style-type: none"> SIDCatalog-3.1 <ul style="list-style-type: none"> Dependencies Integration Logic Data <ul style="list-style-type: none"> BaseProductOffering CatalogSpecification CharacteristicSpecification EntityDefinition EntityTemplate PolicyStatement PricelItem PricingRule ProductOffering ProductOfferingPrice Promotion RateValueOverride RelatedEntityTemplate RelationshipSpecification ValueRule Interfaces Transformations
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		<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> Dependencies Integration Logic Data <ul style="list-style-type: none"> EntityDefinitionMessage EntityTemplateCollectionMessage EntityTemplateMessage PriceItemCollectionMessage PriceItemMessage ProductOfferingCollectionMessage ProductOfferingMessage Interfaces Transformations <p style="background-color: #00ff00; padding: 2px;">Note that the management of major new or enhanced infrastructure development to support Product & Offer Development is managed within the Product & Offer Capability Delivery process AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>In order to comply with business needs, the tooling for MDMCS is aligned with the business purpose and organization within a company. For example, during development of a product, there are data required for the business and operational definition of a product. Stakeholders are identified and the attributes, which become labeled as master data, are also established. Collaboration of the specification which defines the product follows, with use of the tooling discussed in discussed in 1.2.1.5.5. Upon definition of the specifications, and similarly the respective catalogs or product line/s, business processes need to be put in place, in order to manage the ability to enrich product information. Workflows are deployed for this general purpose. MDMCS has industrial strength product-centric workflow tooling which enables a given company to define enrichment of data within a workflow, so that business people can manage the information that they manage, as well as IT and the operational side of the house. These workflows enforce full security so that stakeholders are tasked with what they need to enrich and have access to only the information relevant to their purpose within the system.</p> <p>Sample Workflow Enforcing Business Process For Enriching Product Data</p>
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<p>1.2.1.5.7 - Launch New Products</p>	<p>Brief Description</p> <p>Manage the initial introduction of new and enhanced products into the market and handover to operations for ongoing rollout AM</p> <p>With the use of the data modeling and workflow tooling mentioned in 1.2.1.5.x above, the process of rolling out a new product or maintain the values of attributes and associations becomes a process which can be fully modeled and streamlined.</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>Extended Description</p> <p>The Launch New Products processes manage the initial introduction of new and enhanced products into the market and handover to operations for ongoing rollout. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>Using IBM MDMCS you can define workflows for managing the introduction of products and handing over to operations for ongoing rollout. These workflows represent a business process in the PIM application. By creating collaboration areas based on this workflow, users of MDMCS can perform their business processes by moving the entries through workflow steps. Some activities many be manually have to be performed by the operations folks in their respective systems. See slides 22 thru 24 in evidence above for how these can be defined in MDMCS.</p> <p>http://publib.boulder.ibm.com/infocenter/mdm/v10r0m0/topic/com.ibm.pim.dev.doc/pim_tsk_arc_representing_steps.html</p> <p>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. AM</p> <p>Supported – automatic + human processes</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>These processes identify the shortcomings or issues, and manage the necessary improvements to the product to</p>
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	<p>allow full rollout. 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. AM</p> <p>Supported – automatic + human processes</p> <p>Using IBM MDMCS you can define workflows for managing the introduction of products and handing over to operations for ongoing rollout. Within these workflows you can define for each step the performers, timeout, escalations to raise etc. These would help address the issues or short comings in the overall product launch process. See slides 22 and 23 in evidence above for how these can be defined in MDMCS. Also see slides 25 and 26 which shows how task lists can be created and assigned to appropriate personnel.</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>In IBM MDMCS using the Staging Area Console you can manage staging areas, which you can use to launch data changes on a product or service or resource or at an item level. This can be used to make necessary changes and hence improvements to a product and also make it pass thru acceptance tests. This is shown in slide #27 in</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE .pptx</p> <p>You can also create reports that are specific to identifying and make them available for users to run. These reports can be for understanding the product rollout process bottlenecks.</p> <p>http://publib.boulder.ibm.com/infocenter/mdm/v10r0m0/topic/com.ibm.pim.dev.doc/integration/pim_tsk_dev_creatingreportscontainer.html?resultof=%22%72%65%70%6f%72%74%22%20</p> <p>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</p> <p>Supported – automatic + human processes</p> <p>In a typical MDMCS new product introduction, a new product or product line is designed during the product</p>
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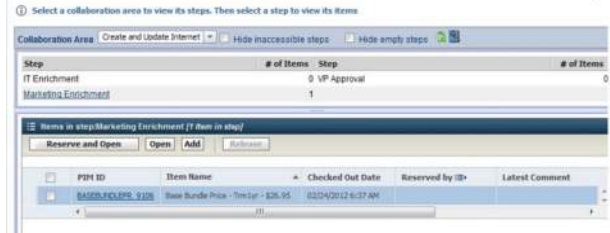


		<p>development discussed in 1.2.1.5.6. Once respective attributes have been established, then business processes are configured to allow for new products and maintenance of existing products which comply with the respective definitions of the product. Expansion of the product to subsequent customers is managed as part of the business process (work flow) within MDMCS.</p> <p>For a typical rollout of a new product, the following happens:</p> <ol style="list-style-type: none"> (1) Creation of new product lines or hierarchy categories within MDMCS. (2) Upload or creation of new products which are immediately categorized to the entities defined in (1). Upload is performed via import jobs within MDMCS. Creation of new products within the MDM hub is accomplished either within workflows or directly to the hierarchy within MDMCS. (3) Check in a new product or existing product to be maintained into a workflow within MDMCS. (4) Stakeholders work within their respective workflow steps to prepare the product information, as required by the downstream systems (OSS and BSS). In parallel, the downstream systems are updated for data related to the product which is not classified as master data (such as order specific configurations around pricing). Using IBM Telecom Pack, the downstream BSS and OSS applications including order entry, billing, CRM, order management, service catalog can be synchronized with the product information. Following are the data schemas provided by IBM BPM Telecom Pack that would help normalize the product information synchronization.
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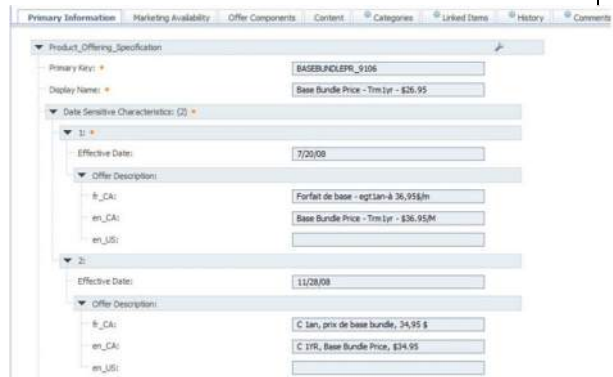
		<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> Dependencies Integration Logic Data <ul style="list-style-type: none"> BaseProductOffering CatalogSpecification CharacteristicSpecification EntityDefinition EntityTemplate PolicyStatement PriceItem PricingRule ProductOffering ProductOfferingPrice Promotion RateValueOverride RelatedEntityTemplate RelationshipSpecification ValueRule Interfaces Transformations <ul style="list-style-type: none"> Dependencies Integration Logic Data <ul style="list-style-type: none"> EntityDefinitionMessage EntityTemplateCollectionMessage EntityTemplateMessage PriceItemCollectionMessage PriceItemMessage ProductOfferingCollectionMessage ProductOfferingMessage Interfaces Transformations
		<p>eTOM_1.2.1.5_CatalogSynch_PRIVATE.pptx</p> <p>(5) Upon approval and staging, product information is synchronized to all consuming operational systems which need to leverage the product, once the changes are ready to go to market. Usually, the product updates and creations are staged for testing, prior to the actual go-live date.</p> <p>{put a typical task list screen here; marketing enrichment item screen}</p>



Sample Task Assignment for an NPI Workflow Within MDMCS



Sample Data Entry Within a MDMCS Workflow For an NPI Process



Sample Resource Catalogs With Displayed Resources Categorized With a Resource Hierarchy – All Managed With MDMCS

		<p>The screenshot shows a 'Resource Catalog' window with a tree view of network resources. The root is 'Resource Hierarchy [view 2 categories]', which branches into 'Logical Resource [view 3 categories]'. Under 'Logical Resource', there are 'Capability [view 2 categories]' and 'Data Resource [view 2 categories]'. 'Capability' further branches into 'CPE Capability [view 1 category]', 'Network Device Capability [view 1 category]', and 'Network Server [view 1 category]'. 'CPE Capability' includes 'Network Connection CPE [view 2 categories]' (with sub-items 'Mobile Data Capability [view 1 item]' and 'UMTS Capability') and 'Mobile Smart Card Capability [view 1 item]' (with sub-item 'SIM Card 3G'). 'Network Server' includes 'Network Subscription Server [view 1 item]' (with sub-item '3G HLR'). 'Data Resource' includes 'Address Resource [view 1 category]' (with sub-item 'Network Address [view 2 categories]' which has 'Internet Address [view 3 items]' (with sub-items 'Email Address', 'Email Domain', 'Internet Domain') and 'Phone Number [view 1 item]' (with sub-item 'Phone Number') and 'Space Resource [view 1 item]' (with sub-item 'Web Space'). 'Network Resource [view 1 category]' includes 'Logical Network [view 4 categories]' (with sub-items 'IPTV [view 1 item]' (with sub-item 'IPTV Port'), 'VoIP [view 1 item]' (with sub-item 'VoIP Port'), 'Wired Network [view 1 category]' (with sub-item 'Fiber Network [view 1 item]' (with sub-item 'Fiber Port'), and 'Wireless Network [view 1 category]' (with sub-item 'GSM Network [view 1 item]' (with sub-item 'GSM 3G Network'))).</p>
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<p>1.2.1.5.8 - Manage Product Exit</p>	<p>Brief Description</p> <p>Identify existing products which are unviable and manage the processes to exit the product from the market. AM</p> <p>MDMCS supports the ability to expire a product based on an 'expiration date'. Expiration can be staged.</p> <p>Extended Description</p> <p>The Manage Product Exit processes identify existing products which are unviable and manage the process to exit the product from the market. AM</p> <p>Supported – automatic + human processes</p> <p>Using Sterling CPQ you can understand existing product performance. See slides 28 and 29 in below.</p> <p>eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>The processes analyze existing products & sales offers to identify economically or strategically unviable products, identify customers impacted by any exit, develop customer specific or market segment exit or migration strategies, develop infrastructure transition and/or replacement strategies, and manage the operational aspects of the exit process. M</p> <p>Supported – automatic + human processes</p> <p>Using Sterling CPQ you can understand existing product performance. See slides 28 and 29 in below.eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx</p> <p>A business proposal identifying the competitive threats, risks and costs may be required as part of developing the exit strategy. It includes any cross-enterprise coordination and management functions to ensure that the needs of all stakeholders are identified and managed. AM</p> <p>Supported – automatic + human processes</p> <p>When a product or product bundle is expired, the product is updated for status of “inactive” based on an “effective end date” attribute within the model. The</p>
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consuming systems are synchronized for this update, when appropriate, either real-time, via a batch job, or on the day of expiration. This is a very typical lifecycle management process commonly managed within MDMCS.

eTOM_1.2.1.5_MDM4PIM_PRIVATE.pptx

Sample Effective End Date for Management of Product Offering Status Within MDMCS

The screenshot displays the 'Catalog Offer Catalog' interface for a product offering. The 'Product Offering Specification' section is expanded, showing 'Date Sensitive Characteristics: (2)'. Under this, there are two entries for 'Geographic (C)' and 'Competitor Zone: (E)'. The 'Start Sell Date' is set to 11/28/08. The 'Stop Sell Date' is also set to 11/28/08 and is circled in red. Other fields include 'Qualification Date' and 'Resurrection Date'.

Field	Value
Start Sell Date	11/28/08
Stop Sell Date	11/28/08
Qualification Date	
Resurrection Date	

5 Information Framework Assessment Overview

5.1 Mapping Technique Employed

Based on the certification scope the list of ABEs (Aggregated Business Entities) is defined. The entities, association classes and dependent entities for each ABE in scope are allocated for the assessment.

SID model files and addendum specifications are analyzed for the entities' and association classes' definitions to determine their roles. Attributes explicit to the entities and association classes as well as inherited attributes are listed.

This information is used to map each entity's or association class' attribute to the appropriate product's attribute to show how the model is supported. For each (when needed) mapping item - attribute type, possible values and comments are provided.

5.2 Information Framework Assessment - ABE Scope

Figure 5.1 illustrates the Information Framework Level 1 ABEs (blue border) that were presented in scope for the Assessment, and the textual callouts represent the domain areas of the IBM Catalog-Driven Order Management Solution that were assessed and support the corresponding SID ABEs.

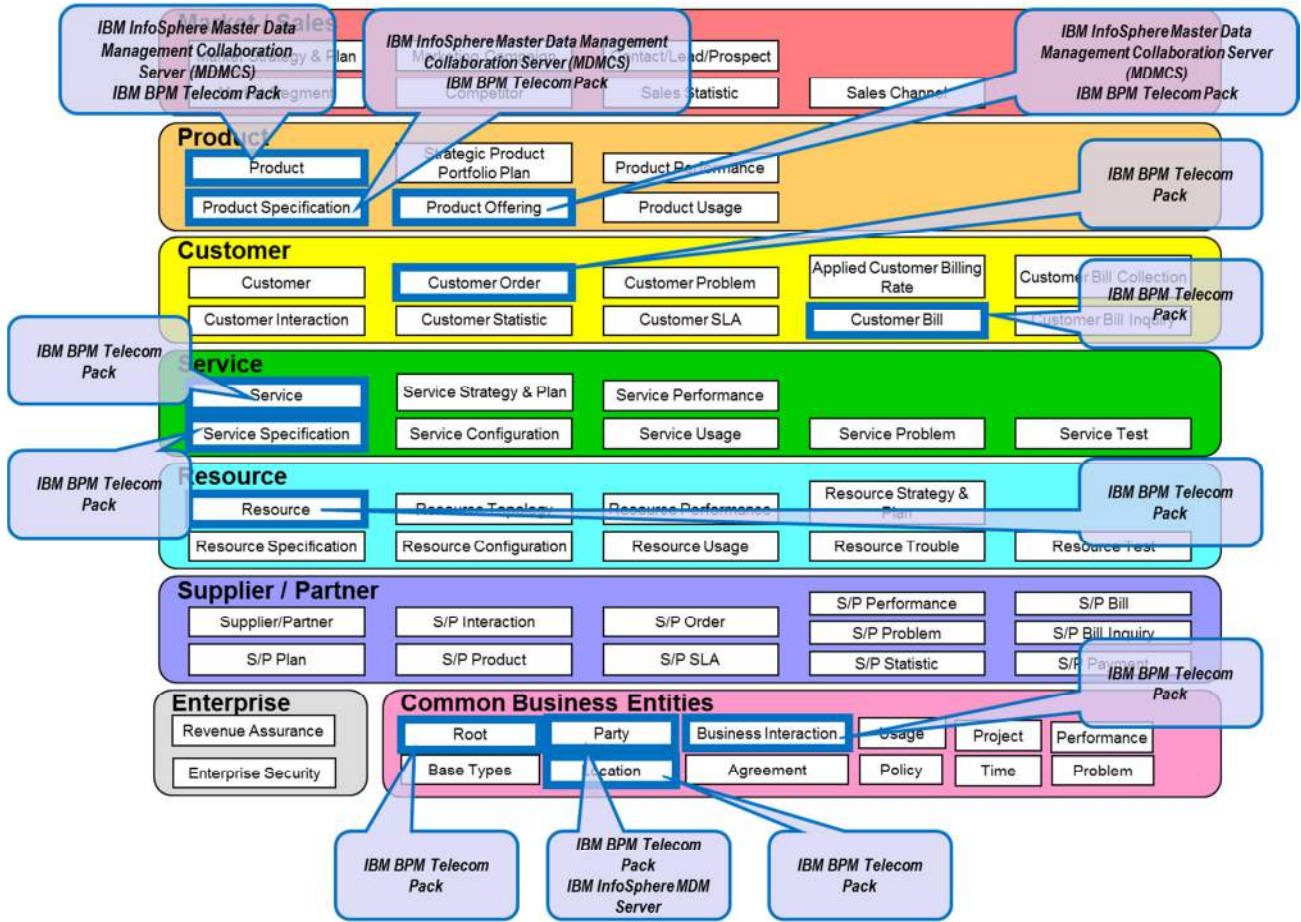


Figure 5.1 Information Framework – Assessment Scope

5.3 Solution Scope

The following diagram illustrates the IBM Catalog-Driven Order Management Solution.

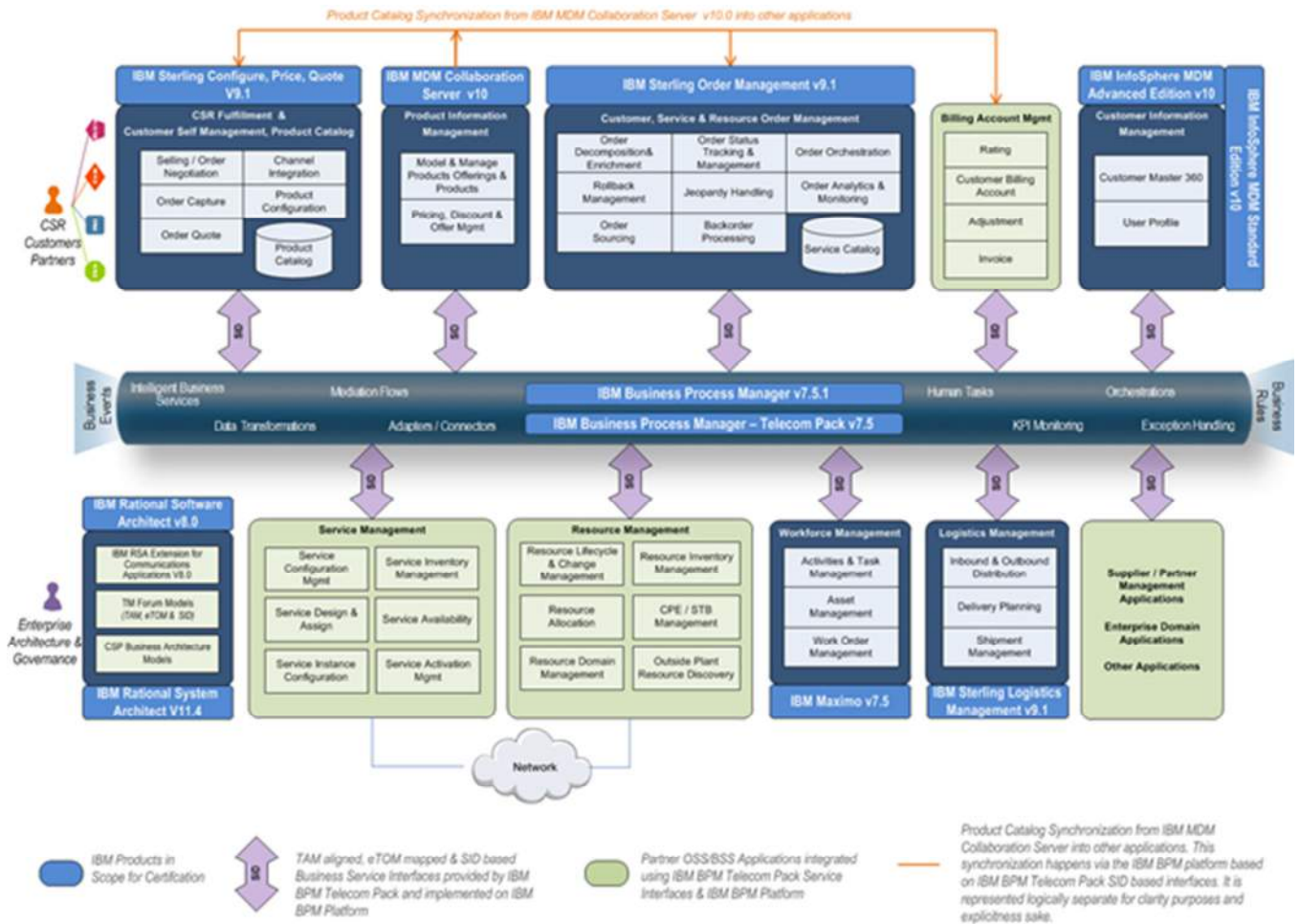


Figure 5.2 IBM Catalog-Driven Order Management Solution – Assessment Scope (SID)



6 Framework Conformance Result

This section details the Scores awarded to reflect Conformance of the IBM Catalog-Driven Order Management Solution to the Business Process Framework & Information Framework components of Framework 11.5.

6.1 Business Process Framework – Scoring Rules

The conformance scores granted were based on the following TM Forum scoring rules:

Conformance Certification (Product/Solution/Implementation)		
Business Process Framework (eTOM) - Conformance Level Descriptions (Level 2 & Level 3 processes)		
Process level	Conformance Level	Qualifier
Level 1	Not applicable	Conformance Assessment shall not be carried out at this process level - hence Conformance Level shall not be awarded at this level.
Level 2	2 - Partially Conformant	This Conformance Level is awarded to a Level 2 Process, if any of the component level 3 processes are not in scope OR those that are in scope are not fully conformant
	3 - Fully Conformant	This Conformance Level is awarded to a Level 2 Process, if all of the component level 3 processes are in scope AND are fully conformant.
Level 3	4 - Partially Conformant	This Conformance Level is awarded if the level 3 process that is being assessed has deviations from the standard.
	5 - Fully Conformant	This Conformance Level is awarded if the level 3 process that is being assessed has no deviations from the standard.

Figure 6.1 TM Forum Business Process Framework – Conformance Scoring Rules

6.2 Business Process Framework - Conformance Result Summary

The graphs in this section provide an overview of the conformance levels granted to the Level 2 & Level 3 Processes presented in scope for the IBM Catalog-Driven Order Management 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.

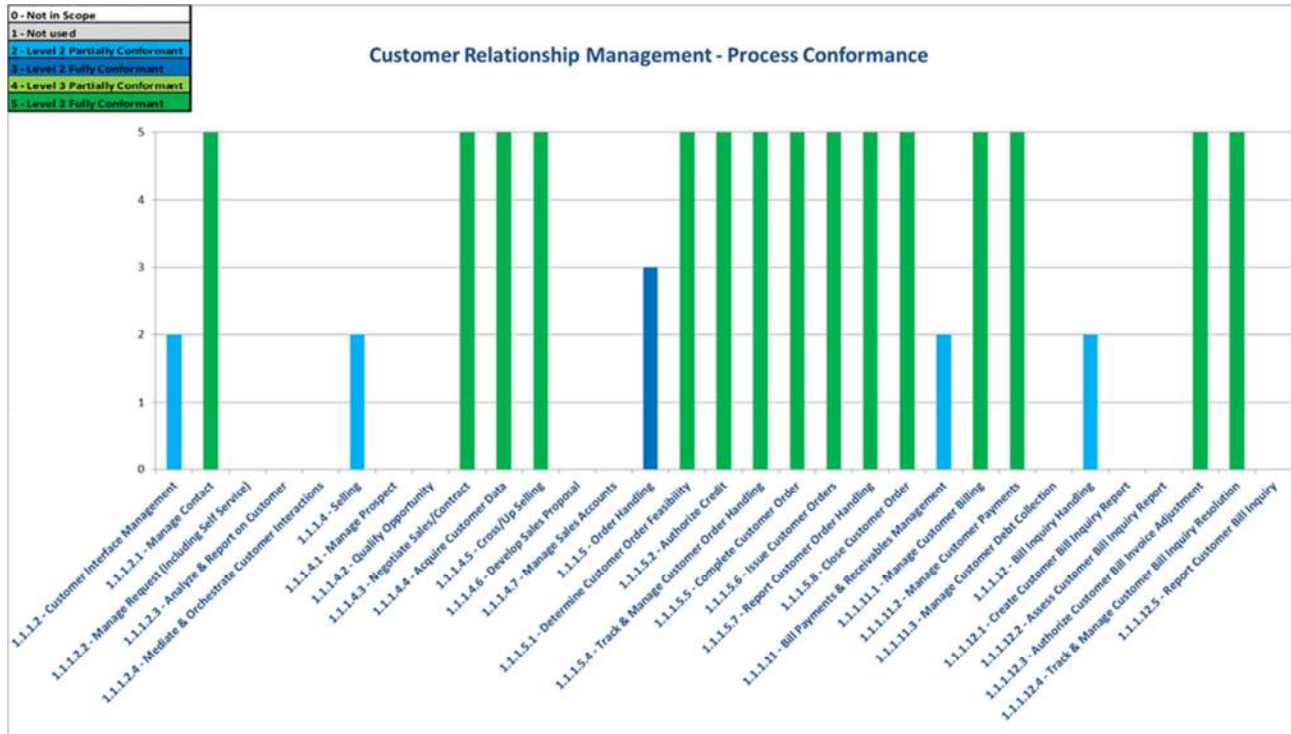


Figure 6.2 Conformance Result Summary - Customer Relationship Management Domain

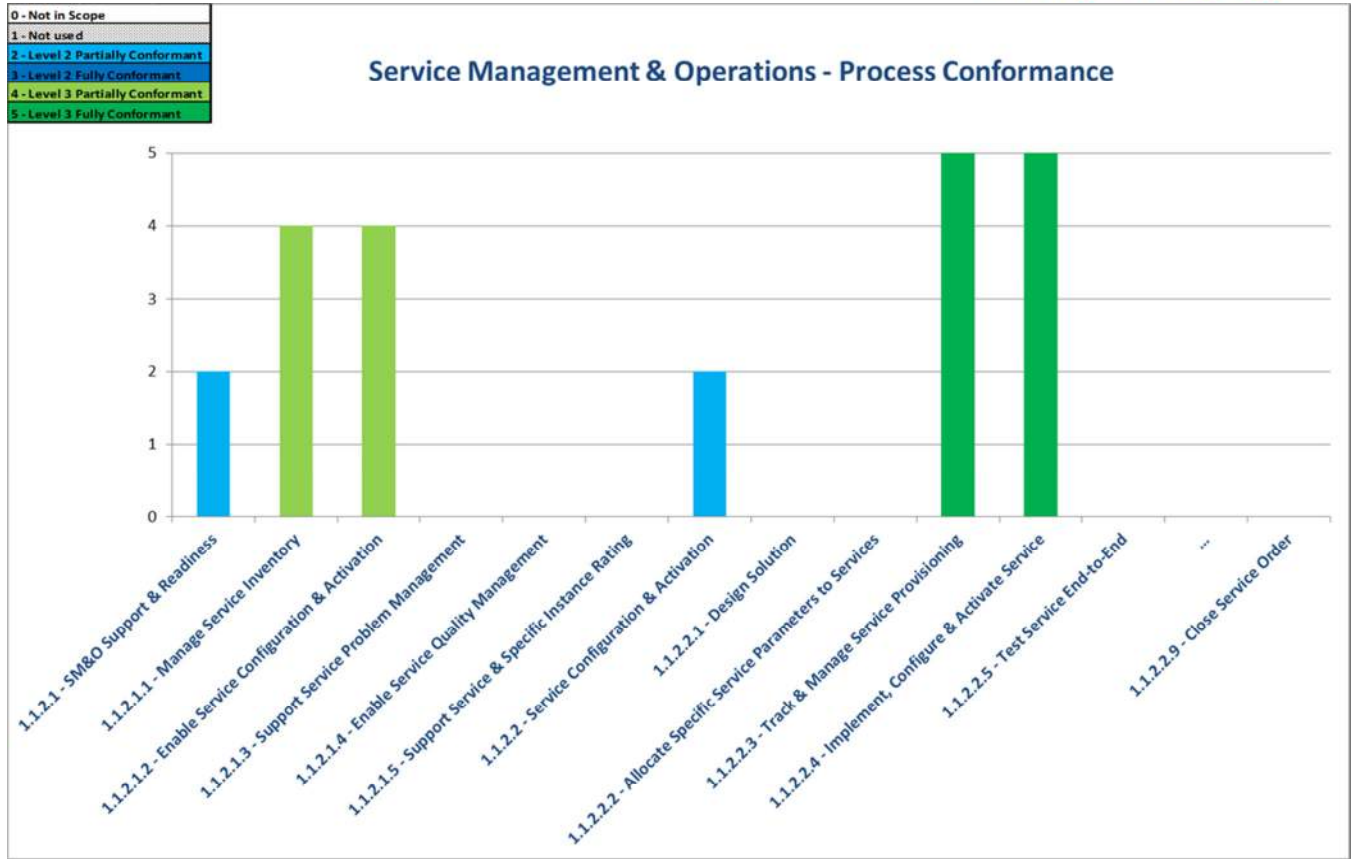


Figure 6.3 Conformance Result Summary – Service Management & Operations Domain

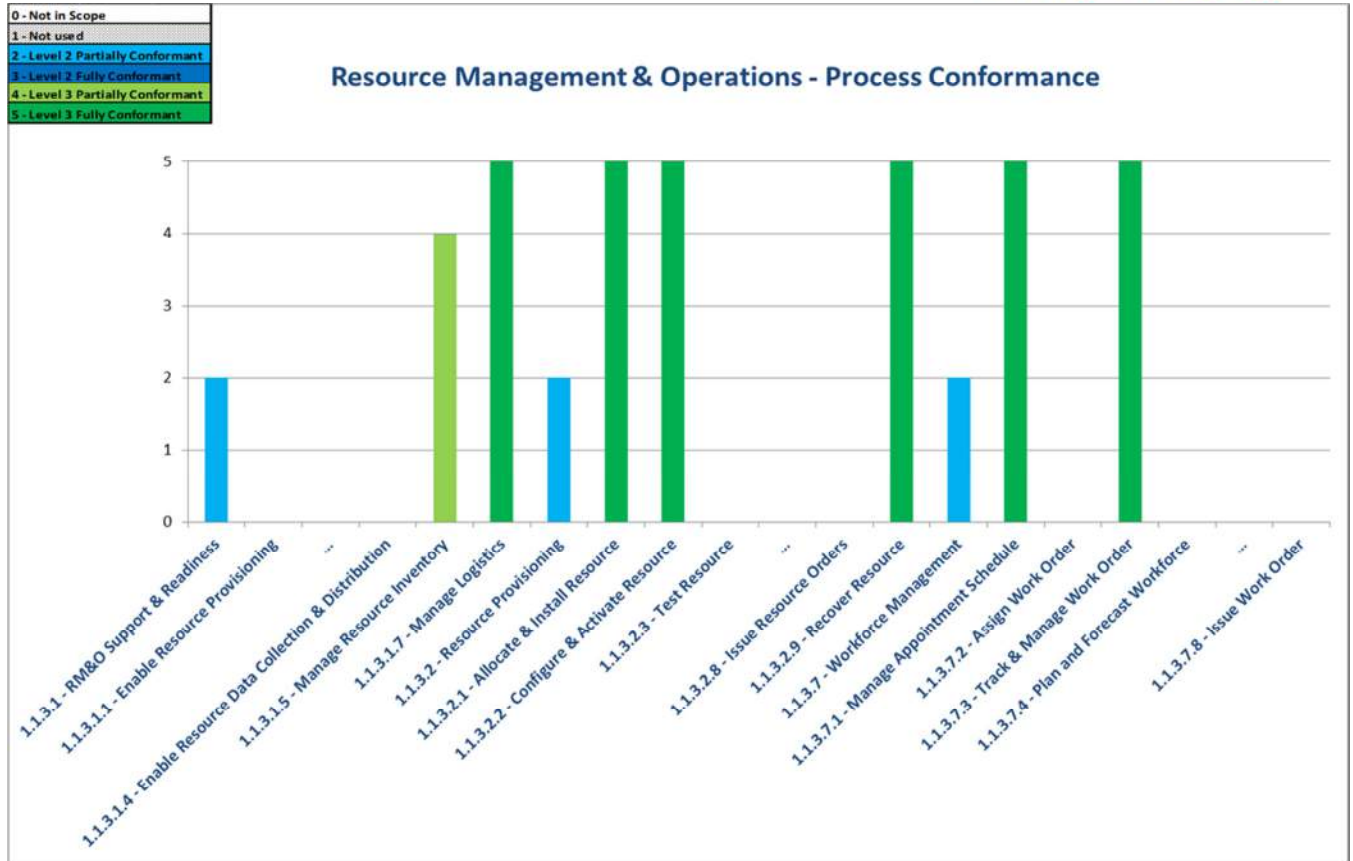


Figure 6.4 Conformance Result Summary – Resource Management & Operations Domain



Figure 6.5 Process Conformance Summary – Marketing & Offer Management Domain



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 6.1 Business Process Framework – Detailed Conformance Result

IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
<p>Within Level 1:</p> <p>1.1.1 - Customer Relationship Management</p>	<p>N/A</p> <p>(Level 1 Processes are not assessed)</p>	<p>The following Level 2 process elements were submitted in scope for this Level 1 process:</p> <p>1.1.1.4 - Selling</p>
<p>Within Level 2:</p> <p>1.1.1.2 - Customer Interface Management</p>	<p>Partially Conformant</p> <p>(2)</p>	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.1.2.1 - Manage Contact</p> <p>These processes represent a partial scope (1 out of 4) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.1.2 – Customer Interface Management process were included in scope of this assessment.</p> <p>The above set of level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>1.1.1.2.1 - Manage Contact</p>	<p>Fully Conformant</p> <p>(5)</p>	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>

IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
<p>Within Level 2:</p> <p>1.1.1.4 - Selling</p>	<p>Partially Conformant</p> <p>(2)</p>	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.1.4.3 - Negotiate Sales/Contract</p> <p>1.1.1.4.4 - Acquire Customer Data</p> <p>1.1.1.4.5 - Cross/Up Selling</p> <p>These processes represent a partial scope (3 out of 7) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 process under the 1.1.1.4 - Selling process were included in scope of this assessment.</p> <p>The above set of level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>1.1.1.4.3 - Negotiate Sales/Contract</p>	<p>Fully Conformant</p> <p>(5)</p>	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>1.1.1.4.4 - Acquire Customer Data</p>	<p>Fully Conformant</p> <p>(5)</p>	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
1.1.1.4.5 - Cross/Up Selling	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 2:</p> <p>1.1.1.5 – Order Handling</p>	<p>Scope Fully Conformant</p> <p> (3)</p>	<p>Scope Fully Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <ul style="list-style-type: none"> 1.1.1.5.1 - Determine Customer Order Feasibility 1.1.1.5.2 - Authorize Credit 1.1.1.5.4 - Track & Manage Customer Order Handling 1.1.1.5.5 - Complete Customer Order 1.1.1.5.6 - Issue Customer Orders 1.1.1.5.7 - Report Customer Order Handling 1.1.1.5.8 - Close Customer Order <p>These processes represent the full scope (7 out of 7) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates full conformance as all the level 3 processes under the 1.1.1.5 – Order Handling process were included in scope of this assessment.</p> <p>The above set of level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
1.1.1.5.1 - Determine Customer Order Feasibility	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.2 - Authorize Credit	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.4 - Track & Manage Customer Order Handling	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.5 - Complete Customer Order	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.6 - Issue Customer Orders	Fully Conformant (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).



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
		Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.7 - Report Customer Order Handling	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.5.8 - Close Customer Order	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
Within Level 2: 1.1.1.11 - Bill Payments & Receivables Management	Partially Conformant (2)	Partially Conformant The following Level 3 processes were assessed for conformance: 1.1.1.11.1 - Manage Customer Billing 1.1.1.11.2 - Manage Customer Payments These processes represent a partial scope (2 out of 3 level 3 processes defined) within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.1.11 – Bill Payments & Receivables Management t process were included in scope of this assessment. The above set of level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations. Note that the support provided can involve manual action

IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
		facilitated by the automated support.
1.1.1.11.1 - Manage Customer Billing	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.1.11.2 - Manage Customer Payments	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 2:</p> <p>1.1.1.12 - Bill Inquiry Handling</p>	Partially Conformant (2)	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.1.12.3 - Authorize Customer Bill Invoice Adjustment</p> <p>1.1.1.12.4 - Track & Manage Customer Bill Inquiry Resolution</p> <p>These processes represent a partial scope (2 out of 7) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.1.12 – Bill Inquiry Handling process were included in scope of this assessment.</p> <p>The two level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
1.1.1.12.3 - Authorize Customer Bill Invoice Adjustment	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
1.1.1.12.4 - Track & Manage Customer Bill Inquiry Resolution	Fully Conformant (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). Note that the support provided can involve manual action facilitated by the automated support.
Within Level 1: 1.1.2 - Service Management & Operations	N/A (Level 1 Processes are not assessed)	The following Level 2 process elements were submitted in scope for this Level 1 process: 1.1.2.2 - Service Configuration & Activation
Within Level 2: 1.1.2.1 - SM&O Support & Readiness	Partially Conformant (2)	Partially Conformant The following Level 3 processes were assessed for conformance: 1.1.2.1.1 - Manage Service Inventory 1.1.2.1.2 - Enable Service Configuration & Activation These processes represent a partial scope (2 out of 5) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.2.1 - SM&O Support & Readiness process were included in scope of this assessment. The two level 3 processes in scope for assessment resulted in



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
		<p>partial conformance with the Business Process Framework (eTOM), as some of the support available to some core tasks within this process are delegated to 3rd party applications, namely in the service inventory management process. On the other hand there is clearly full support provided by IBM Sterling Order Management, IBM BPM and Telecom pack for interfacing with such 3rd party applications.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.2.1.1 - Manage Service Inventory	Partially Conformant (4)	<p>Partially Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process resulted in partial conformance against the Business Process Framework (eTOM), as some of the support available to some core tasks within this process are delegated to 3rd party applications.</p> <p>There are several applications from IBM which directly fulfill the logical OSS and BSS functional requirements, the rest including Service Inventory will be through IBM’s business partners or customer owned systems. The solution allows to integrate with the existing OSS/BSS infrastructure, like service inventory, including heritage applications, using Telecom Pack and expose the capabilities to the order management application (Sterling OM); so while the core service inventory function will be provided by IBM’s partners like Telcordia or Comptel, IBM would expose the core capabilities like manage service instances for a customer, query service inventory, retrieve usage, synchronize data from auto discovery etc. as SOA services using SID based interfaces using IBM Telecom Pack and any business process automated using IBM BPM.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.2.1.2 - Enable Service Configuration &	Partially Conformant	<p>Partially Conformant</p> <p>Supporting evidence and documentation submitted for the</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
Activation	(4)	<p>assessment of this level 3 process resulted in partial conformance against the Business Process Framework (eTOM), as some of the support available to some core tasks within this process have to be performed on the inventory application itself. But this process can be automated and managed by a business process modeled, automated and monitored using IBM BPM.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 2:</p> <p>1.1.2.2 - Service Configuration & Activation</p>	<p>Partially Conformant</p> <p>(2)</p>	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.2.2.3 - Track & Manage Service Provisioning</p> <p>1.1.2.2.4 - Implement, Configure & Activate Service</p> <p>These processes represent a partial scope (2 out of 9) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.2.2 - Service Configuration & Activation process were included in scope of this assessment.</p> <p>The two level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.2.2.3 - Track & Manage Service Provisioning	<p>Fully Conformant</p> <p>(5)</p>	<p>Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
1.1.2.2.4 - Implement, Configure & Activate Service	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 1:</p> <p>1.1.3 - Resource Management & Operations</p>	N/A (Level 1 Processes are not assessed)	<p>The following Level 2 process elements were submitted in scope for this Level 1 process:</p> <p>1.1.3.1 - RM&O Support & Readiness 1.1.3.2 – Resource Provisioning 1.1.3.7 - Workforce Management</p>
<p>Within Level 2:</p> <p>1.1.3.1 - RM&O Support & Readiness</p>	Partially Conformant (2)	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.3.1.5 - Manage Resource Inventory 1.1.3.1.7 - Manage Logistics</p> <p>These processes represent a partial scope (2 out of 6) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 process under the 1.1.3.1 - RM&O Support & Readiness process were included in scope of this assessment.</p> <p>The above set of level 3 processes in scope for assessment resulted in partial conformance with the Business Process Framework (eTOM) with some deviations found specifically in the L3 process 1.1.3.1.5 - Manage Resource Inventory.</p> <p>Several of the implied tasks (or implied functional requirements) defined in the Business Process Framework (eTOM) are performed by the (third party) inventory application itself; it is nevertheless acknowledged that IBM provides full automation and integration</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
		<p>support using IBM Telecom Pack.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.1.5 - Manage Resource Inventory	<p>Partially Conformant</p> <p>(4)</p>	<p>Partially Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled partially the alignment criteria with the standard Business Process Framework (eTOM).</p> <p>As stated in previous paragraph, This process can integrate with several third party inventory management systems; the full process can be automated, integrated and managed by a business process modeled and automated in IBM BPM plus integration using IBM Telecom Pack, but the core capabilities are provided by the third party application.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.1.7 - Manage Logistics	<p>Fully Conformant</p> <p>(5)</p>	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 2:</p> <p>1.1.3.2 - Resource Provisioning</p>	<p>Partially Conformant</p> <p>(2)</p>	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.1.3.2.1 - Allocate & Install Resource</p> <p>1.1.3.2.2 - Configure & Activate Resource</p> <p>1.1.3.2.9 - Recover Resource</p> <p>These processes represent a partial scope (3 out of 8) level 3 processes defined within this Level 2 process, therefore the score</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
		<p>achieved by the parent process indicates partial conformance as not all the level 3 processes under the process 1.1.3.2 - Resource Provisioning were included in scope of this assessment.</p> <p>The three level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.2.1 - Allocate & Install Resource	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.2.2 - Configure & Activate Resource	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.2.9 - Recover Resource	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
Within Level 2: 1.1.3.7 - Workforce	Partially Conformant	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
Management	(2)	<p>1.1.3.7.1 - Manage Appointment Schedule</p> <p>1.1.3.7.3 - Track & Manage Work Order</p> <p>These processes represent a partial scope (2 out of 8) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.1.3.7 – Workforce Management process were included in scope of this assessment.</p> <p>The two level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.7.1 - Manage Appointment Schedule	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.1.3.7.3 - Track & Manage Work Order	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>Within Level 1:</p> <p>1.2.1 – Marketing & Offer Management</p>	N/A (Level 1 Processes are not	<p>The following Level 2 process elements were submitted in scope for this Level 1 process:</p> <p>1.2.1.5 - Product & Offer Development & Retirement</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
	assessed)	
<p>Within Level 2:</p> <p>1.2.1.5 - Product & Offer Development & Retirement</p>	<p>Partially Conformant</p> <p>(2)</p>	<p>Partially Conformant</p> <p>The following Level 3 processes were assessed for conformance:</p> <p>1.2.1.5.5 - Develop Detailed Product Specifications</p> <p>1.2.1.5.6 - Manage Product Development</p> <p>1.2.1.5.7 - Launch New Products</p> <p>1.2.1.5.8 - Manage Product Exit</p> <p>These processes represent a partial scope (4 out of 8) level 3 processes defined within this Level 2 process, therefore the score achieved by the parent process indicates partial conformance as not all the level 3 processes under the 1.2.1.5 - Product & Offer Development & Retirement process were included in scope of this assessment.</p> <p>The four level 3 processes in scope for assessment resulted in full conformance with the Business Process Framework (eTOM) with no deviations found.</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>1.2.1.5.5 - Develop Detailed Product Specifications</p>	<p>Fully Conformant</p> <p>(5)</p>	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
<p>1.2.1.5.6 - Manage</p>	<p>Fully Conformant</p>	<p>Fully Conformant</p>



IBM Catalog-Driven Order Management Solution – Business Process Framework Conformance Result		
eTOM process element	Conformance Score	Comment
Product Development	(5)	<p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.2.1.5.7 - Launch New Products	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>
1.2.1.5.8 - Manage Product Exit	Fully Conformant (5)	<p>Fully Conformant</p> <p>Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).</p> <p>Note that the support provided can involve manual action facilitated by the automated support.</p>

6.4 Information Framework – Scoring Rules

The conformance scores granted were based on the following TM Forum scoring rules:

Product & Solution: Information Framework (SID) Conformance Score Descriptions	
Conformance Score	Qualifier
Conformance Score 1	The content of the model is compatible with a subset of the Information Framework (SID) ABEs that define its domain coverage. This provides two interacting components/solutions with a common vocabulary and model structure. The subset represents the scope of the model, expressed in Information Framework (SID) domains and ABEs.
Conformance Score 2	The model has achieved Conformance Score of 1 and the content of the ABE, part of the domain coverage and defined in the model, contains the ABE's core business entity or entities.
Conformance Score 3	The model has achieved Conformance Score of 2 and the required attributes of the ABE's core entity or entities are defined in the model.
Conformance Score 4	The model has achieved Conformance Score of 3 and dependent entities within the ABE's are defined in the model.
Conformance Score 5	The model has achieved Conformance Score of 4 and the required attributes of the ABE's dependent entities are defined in the model.
Conformance Score 6	The model has achieved Conformance Score of 5 and all attributes of the ABE's core entities are defined in the model.
Conformance Score 7	The model has achieved Conformance Score of 6 and all attributes of the ABE's dependent entities are defined in the model.

Figure 6.6 TM Forum Information Framework – Conformance Scoring Rules

Notes:

A **core business entity** is an entity upon which other entities within the ABE are dependent. For example, Service in the Service ABE. A model should strive to attain as high a level of Information Framework (SID) conformance as possible. A core entity is also an entity whose absence in the ABE would make the ABE incomplete.

A **dependent entity** is one whose instances are dependent on an instance of a core entity. For example, a ServiceCharacteristic instance within the Service ABE is dependent upon an instance of the Service entity.

6.5 Information Framework – Conformance Result Summary

The graphs in this section provides an overview of the conformance levels granted to the ABEs presented in scope for the IBM Catalog-Driven Order Management Solution Information Framework Assessment. Each ABE was measured using an Information Framework (SID) conformance scale of 1–7 as described in section 6.4 Information Framework – Scoring Rules.

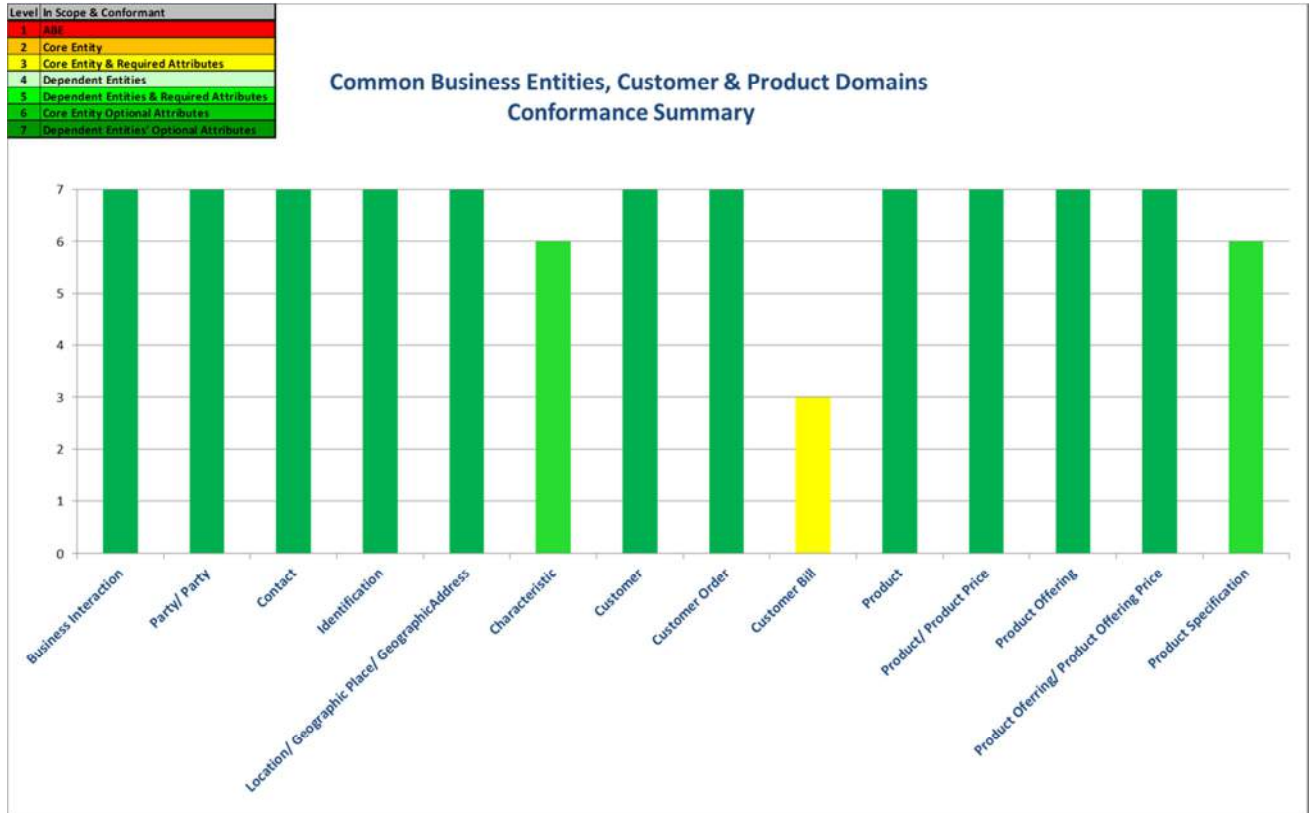


Figure 6.7 Conformance Summary – CBE, Customer & Product Domains

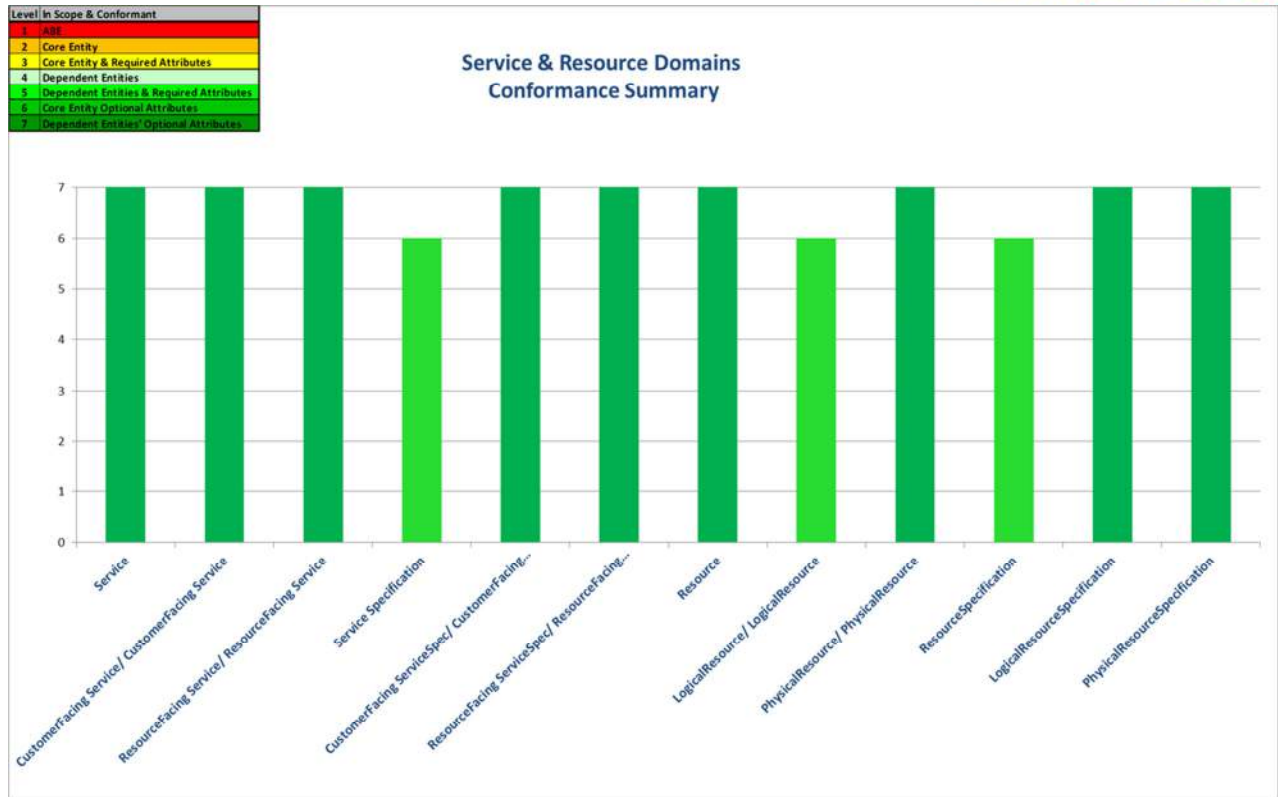


Figure 6.8 Conformance Summary – Service & Resource Domains

6.6 Information Framework – Conformance Result Detailed

The following table provides a more detailed breakdown of the scores awarded with some additional commentary.

Table 6.2 Information Framework – Detailed Conformance Result

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Business Interaction		7	<p>Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.</p> <p>TM Forum Notes:</p> <ol style="list-style-type: none"> 1. PartyInteractionRole is supported by the addition of additional PartyRoles 2. BusinessInteractionRelationship only supports a relationship with one other BusinessInteraction.
Location/ Geographic Place/ GeographicAddress		7	<p>Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.</p>
Party/ Party		7	<p>Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.</p>
Identification		7	<p>Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.</p>

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Contact		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Characteristic/ Characteristic		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
Customer		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Customer Order		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Customer Bill		3	Core entity, required attributes.
Product		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Product / Product Price		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Product Offering		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Product Offering /		7	Core entity, required attributes, dependent entities, required attributes

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
Product Offering Price			of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Product Specification		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
Service		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
CustomerFacing Service / CustomerFacing Service		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
ResourceFacing Service / ResourceFacing Service		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Service Specification		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
CustomerFacing ServiceSpec / CustomerFacing ServiceSpec		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
ResourceFacing ServiceSpec / ResourceFacing ServiceSpec		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
Resource		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of

Software Solution Information Framework (SID) Conformance			
Information Framework (SID) ABE	Software Solution Domain	Conformance Score	Comment
			the core entity, all attributes of dependent entities.
LogicalResource/ LogicalResource		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
PhysicalResource/ PhysicalResource		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
ResourceSpecification		6	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity.
LogicalResourceSpecif ication		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.
PhysicalResourceSpec ification		7	Core entity, required attributes, dependent entities, required attributes of dependent entities, all attributes of the core entity, all attributes of dependent entities.