

Frameworx 14.5 Solution Conformance Certification Report

Apttus Quote-To-Cash Solution

October 2015

Version 1.0



Table of Contents

List	of Figures	5
List	of Tables	6
1	Introduction	7
1.1	Executive Summary	7
2	Solution Functionality/Capability Overview	8
2.1	Apttus Quote-to-Cash Solution Overview	8
3	Business Process Framework Assessment Overview	.0
3.1	Mapping Technique Employed	10
3.2	Business Process Framework Level 2 Process Scope	11
3.3	Solution Scope	13
4	Business Process Framework – Process Mapping Descriptions	.4
4.1	L2: Selling (1.1.1.4)	15
4.1.	1 L3: Manage Prospect (1.1.1.4.1)	16
4.1.	2 L3: Qualify Opportunity (1.1.1.4.2)	22
4.1.	3 L3: Negotiate Sales Contract (1.1.1.4.3)	22
4.1.	4 L3: Cross/Up Selling (1.1.1.4.5)	29
4.1.	5 L3: Develop Sales Proposal (1.1.1.4.6)	33
4.1.	6 L3: Manage Sales Accounts (1.1.1.4.7)	37
4.1.	7 Supporting Evidence References (Works Cited)	37
4.1.	8 Summary of Level 3 & Level 4 Scores	38
4.2	L2: Order Handling (1.1.1.5)	39
4.2.	1 L3: Determine Customer Order Feasibility (1.1.1.5.1)	41
4.2.	2 L3: Authorize Credit (1.1.1.5.2)	46
4.2.	3 L3: Track & Manage Customer Order Handling (1.1.1.5.4)	46
4.2.	4 L3: Complete Customer Order (1.1.1.5.5)	58
4.2.	5 L3: Issue Customer Orders (1.1.1.5.6)	61
4.2.	6 L3: Report Customer Order Handling (1.1.1.5.7)	70
4.2.	7 L3: Close Customer Order (1.1.1.5.8)	81
4.2.	8 Supporting Evidence References (Works cited)	84
4.2.9	9 Summary of Level 3 & Level 4 Scores	84



4.3	L2: Bill Invoice Management (1.1.1.10)	85
4.3.1	L L3: Apply Pricing, Discounting, Adjustments & Rebates (1.1.1.10.1)	87
4.3.2	L3: Create Customer Bill Invoice (1.1.1.10.2)	97
4.3.3	3 L3: Produce & Distribute Bill (1.1.1.10.3)	110
4.3.4	Supporting Evidence References (Works Cited)	123
4.3.5	Summary of Level 3 & Level 4 Scores	124
4.4	L2: Bill Payments & Receivables Management (1.1.1.11)	125
4.4.1	L L3: Manage Customer Billing (1.1.1.11.1)	127
4.4.2	2 L3: Manage Customer Payments (1.1.1.11.2)	131
4.4.3	L3: Manage Customer Debt Collection (1.1.1.11.3)	145
4.4.4	Supporting Evidence References (Works Cited)	159
4.4.5	Summary of Level 3 & Level 4 Scores	160
4.5	L2: Manage Billing Events (1.1.1.14)	161
4.5.1	L L3: Enrich Billing Events (1.1.1.14.1)	163
4.5.2	2 L3: Guide Billing Events (1.1.1.14.2)	169
4.5.3	3 L3: Mediate Billing Events (1.1.1.14.3)	174
4.5.4	L3: Report Billing Event Records (1.1.1.14.4)	178
4.5.5	Supporting Evidence References (Works Cited)	184
4.5.6	Summary of Level 3 & Level 4 Scores	185
5	Information Framework Assessment Overview	186
5.1	Mapping Technique Employed	186
5.2	Information Framework Assessment - ABE Scope	186
5.3	Solution Scope	186
6	Frameworx Conformance Result	187
6.1	Business Process Framework – Scoring Rules	187
6.2	Business Process Framework – Conformance Result Summary	189
6.3	Business Process Framework – Detailed Conformance Results	191
6.4	Information Framework – Scoring Rules	195
6.4.1	Information Framework Maturity Conformance Scoring Methodology	196
6.4.2	2 Information Framework Adoption Conformance Scoring Methodology	199
6.5	Information Framework – Conformance Result Summary	202



6.5.1	Information Framework - Maturity Conformance Result Summary	.202
6.5.2	Information Framework - Adoption Conformance Result Summary	.202
6.6 Info	rmation Framework – Detailed Conformance Result	. 203



List of Figures

Figure 3-1 Level 2 process coverage for Apttus Quote-to-Cash Assessment	11
Figure 3-2 Level 3 process coverage for Apttus Quote-to-Cash Assessment	12
Figure 3-3 Apttus Quote-to-Cash Solution mapped to eTOM L2 Processes in scope	13
Figure 6-1 TM Forum Business Process Framework: Conformance Scoring Rules	187
Figure 6-2 Business Process Framework: Conformance Result Summary [1/2][1/2]	189
Figure 6-3 Business Process Framework: Conformance Result Summary [2/2][2/2]	190



List of Tables

Table 4-1 Selling (1.1.1.4) – Conformance Scores	38
Table 4-2 Order Handling (1.1.1.5) – Conformance Scores	84
Table 4-3 Bill Invoice Management (1.1.1.10) – Conformance Scores	124
Table 4-4 Bill Payments & Receivables Management (1.1.1.11) - Conformance Scores	160
Table 4-5 Manage Billing Events (1.1.1.14) – Conformance Scores	185
Table 6-1 Business Process Framework: Detailed Conformance Results	191
Table 6-2 TM Forum Information Framework Maturity Conformance - Scoring Rules	197
Table 6-3 TM Forum Information Framework Adoption Conformance - Scoring Rules	200



1 Introduction

1.1 Executive Summary

This document provides details of Apttus' self-assessment and TM Forum's Conformance Assessment of the **Apttus Quote-to-Cash** Solution, against the following Frameworx 14.5 components:

Business Process Framework Version 14.5

The assessment included a review of:

• The methodology approach to process modeling against the TM Forum's Business Process Framework Release 14.5 according to the specific processes submitted in scope for the Assessment.

Note that Conformance to the Information Framework (SID) Aggregate Business Entities (ABEs) was not covered in this Assessment.



2 Solution Functionality/Capability Overview

2.1 Apttus Quote-to-Cash Solution Overview

Apttus Quote-to-Cash solution is delivered on the Salesforce1 Platform. It comprises a number of applications. Components of these applications are used to realise the solution:

Apttus Contract Management: 7.5.0267

Apttus Configuration and Pricing: 8.5.0829.17

Apttus Approvals Management: 7.2.0350

• Apttus X-Author for Excel: 3.0.0028

• Apttus Order Management

Revenue Management:

o Apttus Billing Management: 3.61

Order Management: no GA version yet, development in progress

o Revenue Recognition: 3.92

Apttus Quote-to-Cash is your ticket to understanding today's fastest growing business-critical process.

Whether you are in Sales, Sales Ops, Legal, Finance, Operations, or any management position, you share one common goal with everyone else in your company—the desire to drive revenue. Understanding and optimizing the Quote-to-Cash process will allow you to accomplish this, while also reducing risk and increasing sales efficiency.

From Quote-to-Cash in Ten Steps

There's a lot of under-the-hood work that goes into closing a deal. Here is an outline of the ten critical steps that bring your deals to close.

- 1. Configuration: An ideal combination of products and services is created
- 2. Pricing: Discounts, promotions and bundles are applied
- 3. Quoting: A quote is generated, approved and sent to the customer
- 4. Contract Creation: A contract or order form is created
- 5. Contract Negotiation: Contract terms and clauses are redlined and changed
- 6. Contract Execution: An approved contract is signed and the deal is finalized
- 7. Order Fulfillment: The order is received, processed and delivered
- 8. Billing: Final charges are calculated and an invoice is sent to the customer
- 9. Revenue Recognition: Cash is received



10. Renew: Manage customer retention and recurring revenue

Why Apttus

What makes Apttus the clear Quote-to-Cash choice for more than 500,000 users? Our comprehensive functionality, innovative usability, and world-class cloud delivery on Salesforce1 set us apart from all other Quote-to-Cash solutions on the market.

Apttus offers true enterprise capabilities with multi-channel support, e-commerce, support for multiple languages and currencies, comprehensive reporting and real time analytics built right in.

Apttus has carved out the fullest, most comprehensive Quote-to-Cash footprint to date, so no matter how complex your business gets, we have the tools to support you.

Apttus is based in San Mateo, California, with additional offices in London, UK and Ahmedabad, India. For more information visit: www.apttus.com



3 Business Process Framework Assessment Overview

3.1 Mapping Technique Employed

Business Process Framework Level 4 descriptions are analyzed by looking for implied tasks. (This is similar to how process decomposition can use Semantic Analysis). Each Business Process Framework process is supported by descriptive text. In many cases, each process is aligned and mapped to appropriate company documentation references solution, methodology or modeling material.

Note that when a Level 3 process has not been decomposed to Level 4 processes, the implied tasks for the given Level 3 process are analyzed.

The Business Process Framework Level 4 descriptions (or Level 3 if appropriate) 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 4 process implied task:

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

Manual and Automated Support

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

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

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



3.2 Business Process Framework Level 2 Process Scope

The following figure represent the Business Process Framework Level 2 processes (high-lighted in green) that were presented in scope for the assessment and that were assessed and support the corresponding Business Process Framework processes according to the results in Chapter 6 Framework Conformance Result.

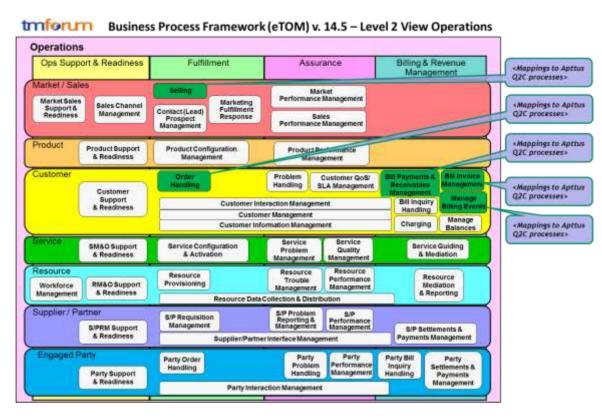


Figure 3-1 Level 2 process coverage for Apttus Quote-to-Cash Assessment



The following diagram identifies the number of Level 3 processes that were submitted for assessment, for each Level 2 process that was submitted in scope for the Assessment.

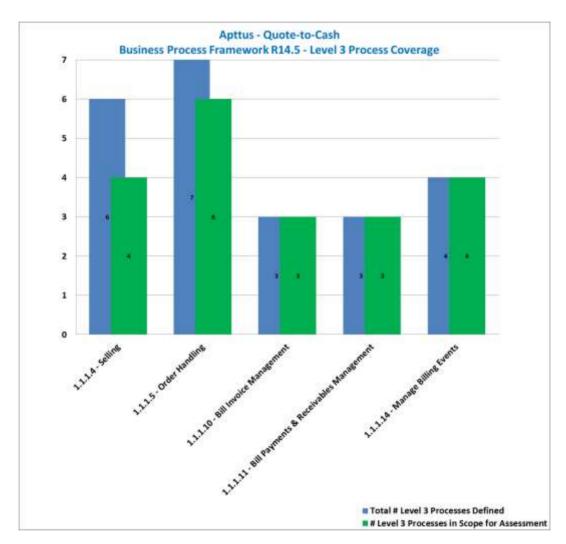


Figure 3-2 Level 3 process coverage for Apttus Quote-to-Cash Assessment



3.3 Solution Scope

The diagram in Figure 3-3 represents Apttus' Quote-to-Cash solution with mappings to the Business Process Framework Level 2 processes that were submitted in scope for the Conformance Certification assessment.

Quote-to-Cash Footprint and the Business Process Framework

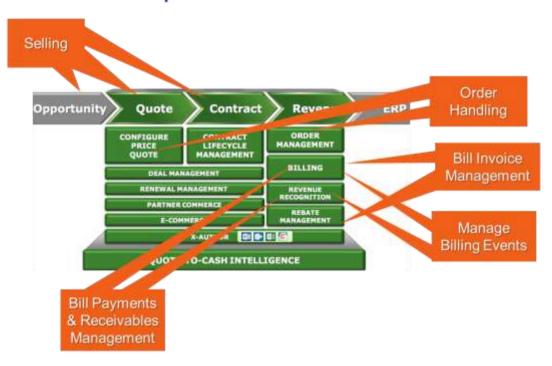


Figure 3-3 Apttus Quote-to-Cash Solution mapped to eTOM L2 Processes in scope

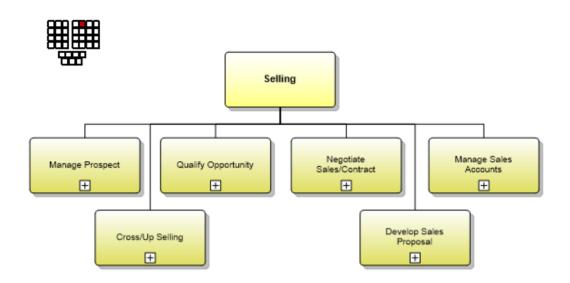


4 Business Process Framework – Process Mapping Descriptions

This section provides the Process Mapping output from Apttus' self-assessment which was reviewed by TM Forum Subject Matter Experts alongside supporting documentation for Apttus' Quote-to-Cash solution.



4.1 L2: Selling (1.1.1.4)



Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

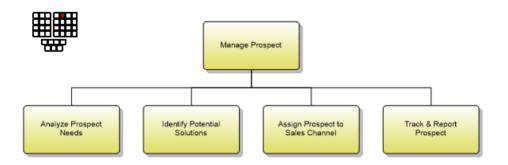
Responsible for managing prospective customers, for qualifying and educating customers, and matching customer expectations

Extended Description

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



4.1.1 L3: Manage Prospect (1.1.1.4.1)



Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Match assigned leads with the most appropriate products and ensure that these prospects are handled appropriately

Extended Description

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

4.1.1.1 L4: Analyse Prospect Needs (1.1.1.4.1.1) – Mapping Details

Process Identifier: 1.1.1.4.1.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.



LEVEL 4 PROCESS MAPPING DETAILS

Analyse Prospect Needs 1.1.1.4.1.1

In the Apttus solution this is achieved through an automated interactive question and answer process. I have indicated this as being Automated as the system generates the best products depending on the answers given.

Reference 1: APTTUS Configuration & Pricing (CPQ) User Guide - Page 28

Using Guided Selling

Guided Selling is a process that helps you to choose the product best fulfilling your customer's needs. The goal of guide selling is to provide you a way to figure out which product to sell to a customer.

You need to answer a set of questions around your customer's needs and based on your answers, the system recommends products. This way, you can quickly select the right product to meet your customer's needs.

To use guided selling

Prerequisites

You must be on the product catalog page.

Steps

1. Select a category and click Guided Selling.

A set of questions appear (one or more pages of questions).

2. Select an answer from the available choices for the questions and click **Next**.

Results

After you have finished answering the questionnaire, the system retrieves and displays the products matching your customer's needs in the Recommended Products section.



4.1.1.2 L4: Identify Potential Solutions (1.1.1.4.1.2) – Mapping Details

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Identify Potential Solutions 1.1.1.4.1.2

Mandatory

Identify potential solutions from the service provider's product portfolio against prospect needs. AM

This task is also supported by the Guided Selling feature

Reference 1: APTTUS Configuration & Pricing (CPQ) User Guide - Page 28

Using Guided Selling

Guided Selling is a process that helps you to choose the product best fulfilling your customer's needs. The goal of guide selling is to provide you a way to figure out which product to sell to a customer.

You need to answer a set of questions around your customer's needs and based on your answers, the system recommends products. This way, you can quickly select the right product to meet your customer's needs.

To use guided selling

Prerequisites

You must be on the product catalog page.

Steps

1. Select a category and click Guided Selling.

A set of questions appear (one or more pages of questions).

2. Select an answer from the available choices for the questions and click **Next**.

Results



After you have finished answering the questionnaire, the system retrieves and displays the products matching your customer's needs in the Recommended Products section.

4.1.1.3 L4: Assign Prospect to Sales Channel (1.1.1.4.1.3) – Mapping Details

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

This is again achieved through the Guided Selling process where the prospect is required to provide answers to a series of pre-set questions that match the prospect to the required products.

Reference 1: APTTUS Configuration & Pricing (CPQ) User Guide - Page 28

Using Guided Selling

Guided Selling is a process that helps you to choose the product best fulfilling your customer's needs. The goal of guide selling is to provide you a way to figure out which product to sell to a customer.

You need to answer a set of questions around your customer's needs and based on your answers, the system recommends products. This way, you can quickly select the right product to meet your customer's needs.

To use guided selling

Prerequisites



You must be on the product catalog page.

Steps

1. Select a category and click Guided Selling.

A set of questions appear (one or more pages of questions).

2. Select an answer from the available choices for the questions and click **Next**.

Results

After you have finished answering the questionnaire, the system retrieves and displays the products matching your customer's needs in the Recommended Products section.

4.1.1.4 L4: Track and Report Prospect (1.1.1.4.1.4) – Mapping Details

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAIL

Track & Report Prospect 1.1.1.4.1.4

Mandatory

Track each prospect through these processes and report the outcome (win or loss) of each prospect.

AM

I have identified this process as AM as it requires some data to be input manually but thereafter it progresses automatically.

The Apttus system kicks in after the prospect has been identified and the interaction between prospect and Apttus has begun.



The system provides an integrated view of Customers, Quotes & Contracts http://apttus.com/solutions/quote-to-cash/.

The solution is integrated with Salesforce 1 which provides much of the basic customer information features. The Apttus solution automates the management of the various interactions as the relationship with the Customer progresses through its lifecycle

In particular Apttus has two sub processes that support this level 4

Apttus Order Management and Apttus Contract Management

Reference 3: APTTUS Order Management Data Sheet

Key Capabilities

- Order Capture: Capture complete details for all your orders, including product configurations, quantities, pricing and payment terms.
- Multi-Channel Orders: Capture and consolidate orders across all channels, including E-Commerce, distributors and partners, and direct sales.
- Order Visibility: Provide customers complete view of their orders, including expected delivery dates, shipment costs and taxes.
- Order Orchestration: Coordinate fulfillment of orders, including product shipments, software provisioning and resource scheduling.
- Asset-Based Ordering: Create accurate orders based on products and services that customers already own, including add-ons, swaps and upgrades.
- Change Orders: Manage in-flight changes to orders, including MACDs (Move Add Change Delete), split orders, credits and more.
- Back Office Integration: Integrate with third-party systems, such as SAP, Oracle and Flexera, for inventory status, order fulfillment, service provisioning, taxes and more.
- Line Level Ordering: Manage orders at the line-item level, including differing treatment for order fulfillment, delivery, billing and revenue recognition.
- Order Analytics: Personalize dashboards, reports and alerts for all orders across all channels.

Reference 2: APTTUS Contract Management User Guide Page 5

Contract Management is the process of systematically and efficiently managing contract creation, execution, and analysis for the purpose of maximizing financial and operational performance and minimizing revenue leakage, legal risks and operating costs.

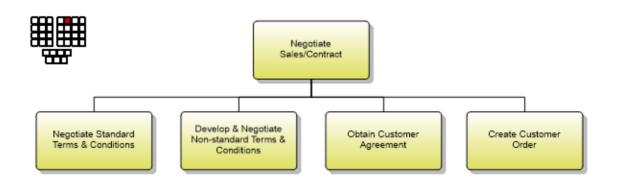
Apttus Contract Management helps companies manage the entire contract lifecycle inside Microsoft Word, including standard templates, clause libraries and terms. It can manage any type of contract, process or function.



4.1.2 L3: Qualify Opportunity (1.1.1.4.2)

Not in scope for this assessment.

4.1.3 L3: Negotiate Sales Contract (1.1.1.4.3)



Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Close the sale with terms that are understood by the customer, and are mutually agreeable to both the customer and the service provider.

Extended Description

The purpose of this process is to close the sale with terms that are 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.

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 price determination may include issues of CPE prices from third party vendors, allowances based on customer location, etc. 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. Depending upon specific circumstances, final agreement from the Service Provider's perspective may require escalation to, and agreement from, an appropriately 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...

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.1.3.1 L4: Negotiate Standard Terms and Conditions (1.1.1.4.3.1) - Mapping Details

Process Identifier: 1.1.1.4.3.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Negotiate Standard Terms and Conditions (1.1.1.4.3.1)

Mandatory

For standard terms and conditions, interact as necessary with the customer to ensure that the standard terms and conditions are understood by, and are acceptable to, the customer. **AM**

Reference 2: Apttus Contract Management User Guide pages 15 & 17 & 24

This is an interactive iterative process



The system used a range of templates to generate an initial Agreement which then can be sent for review any adjustments can be made and agreed at this point.

The last step in the process is to Finalise the agreement by obtaining a manual or electronic signature.

4.1.3.2 L4: Develop & Negotiate Non-standard Terms & Conditions (1.1.1.4.3.2) – Mapping Details

Process Identifier: 1.1.1.4.3.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Develop & Negotiate Non-standard Terms & Conditions (1.1.1.4.3.2)

Mandatory

Develop and negotiate with the customer (where required) non-standard terms and conditions associated with sales proposals specifically developed to meet specific customer requirements. AM

Apttus satisfies this feature in two separate steps non-standard pricing is negotiated as part of the "Configuration & Pricing" when the order is being created and in "contract management" where the terms and conditions are negotiated.

Reference 1: Apttus Configuration & pricing (CPQ) user Guide

Step 1 Page 33

After the quote is finalized, and if any approval processes have been configured in your organization, the **Approval Stage** changes to **Approval Required**. As soon as the Approval Stage changes, the **Submit for Approval** button becomes available and you can submit the Quote for approval to management. For an overview of the various Approval stages,

After the quote is approved by an approver, the **Approval Stage** changes to **Approved**. You can now generate a proposal document to present to a trading partner. When you initiate the **Generate** action, a screen appears allowing you to select additional information about the document to be generated. Additionally, if document protection has been enabled, a document can be generated with the appropriate protection options. After generating a proposal document, it is presented to the trading partner. The system sends an email with the generated Quote attached.



Step 2 Page 35

Use the **Reprice Quote** feature to reprice all the parameters with a single click from the Quote/Proposal page. Pricing is determined by Quote header level parameters. Normally after the first time Quote configuration is completed, and you were to adjust the Quote level parameters, you had to go back to the shopping cart to Reprice. Doing this one by one and then repricing is time consuming and ineffective. With Reprice Quote button, there is no need to do this, you can change product pricing and/or rules, and click the Reprice Quote button to reprice all the parameters without going to the cart page.

Reference 2: Apttus Contract Management User Guide page 20

Apttus Contract Management process



As a Contract Negotiator, you coordinate changes to the agreement that might occur over the course of agreement negotiation. They are generally involved in finalizing the process in accordance with company policies and legal requirements. You can perform the following:

- Amend and save contract agreements or proposals in Salesforce
- Highlight reconcilable data
- Reconcile agreement or proposal records
- · View chatter feeds from within Microsoft Word
- Share content and document to Salesforce chatter
- Translate agreements from one language to another
- Create reminder tasks or schedule appointment events in relation to the opened agreement or proposal document
- Redline and store versions of the document during negotiations



• Compare different versions of agreements or proposals side by side

4.1.3.3 L4: Obtain Customer Agreement (1.1.1.4.3.3) – Mapping Details

Process Identifier: 1.1.1.4.3.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

.

LEVEL 4 PROCESS MAPPING DETAILS

Obtain Customer Agreement (1.1.1.4.3.3)

Mandatory

For either standard or non-standard terms and conditions, obtain final confirmation that the agreed terms and conditions are understood by, and are acceptable to, the customer, and achieve sign-off.

AM

Reference 2: Apttus Contract Management User Guide pages 24 & 26

After you complete the negotiation process with the customer, you can send the finalized agreement document to the customer for gathering signatures.

When the agreement is ready to execute, you can collect the required internal and external signatures. Depending on your organization's requirements, you can send the agreement document for a manual signature to your customer or if a third party application, such as Echosign or DocuSign is installed in your org, you can send the agreement document for an electronic signature.

After the agreement is finalized and signed between the engaged parties, you can activate the agreement to bring it into effect.

Activating an agreement record is very important since it ensures key dates and events will be monitored by the system, and that all *In Effect* agreements are included in appropriate searches, reports and views. As a part of the activation sequence, the system will ensure that your organization has identified and attached the proper, final executed version of the agreement.



4.1.3.4 L4: Create Customer Order (1.1.1.4.3.4) - Mapping Details

Process Identifier: 1.1.1.4.3.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Create Customer Order (1.1.1.4.3.4)

Mandatory

Responsible for creating standard and/or non-standard orders (in ITIL, "RFCs") for handover to be fulfilled *AM*

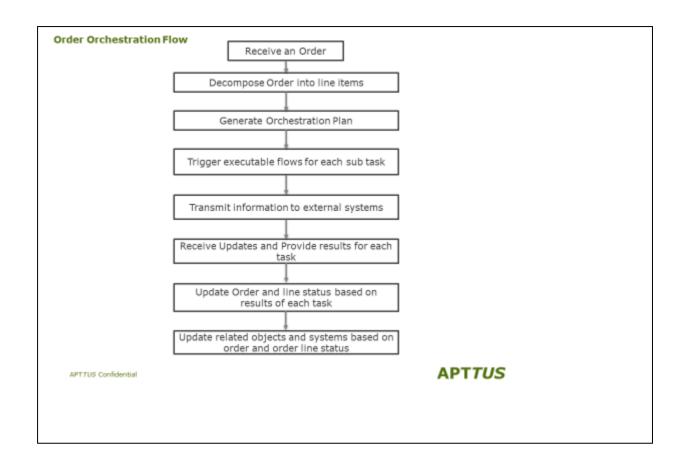
Reference 3: APTTUS Order Management Data Sheet

This action is completed by "Order Orchestration and Change Orders" capabilities

Key Capabilities

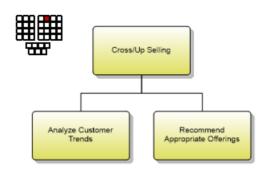
- Order Capture: Capture complete details for all your orders, including product configurations, quantities, pricing and payment terms.
- Multi-Channel Orders: Capture and consolidate orders across all channels, including E-Commerce, distributors and partners, and direct sales.
- Order Visibility: Provide customers complete view of their orders, including expected delivery dates, shipment costs and taxes.
- Order Orchestration: Coordinate fulfillment of orders, including product shipments, software provisioning and resource scheduling.
- Asset-Based Ordering: Create accurate orders based on products and services that customers already own, including add-ons, swaps and upgrades.
- Change Orders: Manage in-flight changes to orders, including MACDs (Move Add Change Delete), split orders, credits and more.
- Back Office Integration: Integrate with third-party systems, such as SAP, Oracle and Flexera, for inventory status, order fulfillment, service provisioning, taxes and more.
- Line Level Ordering: Manage orders at the line-item level, including differing treatment for order fulfillment, delivery, billing and revenue recognition.
- Order Analytics: Personalize dashboards, reports and alerts for all orders across all channels.







4.1.4 L3: Cross/Up Selling (1.1.1.4.5)



Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

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

Extended Description

The purpose of this process is to ensure that the value of the relationship between the customer and service provider is maximized by selling additional, or more of the existing, products. The ongoing analysis of customer trends (e.g. usage, problems, complaints etc) 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.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.



4.1.4.1 L4: Analyse Customer Trends (1.1.1.4.5.1) – Mapping Details

Process Identifier: 1.1.1.4.5.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

.

LEVEL 4 PROCESS MAPPING DETAILS

Analyse Customer Trends (1.1.1.4.5.1)

Mandatory

Use ongoing analysis of customer trends (e.g. usage, problems, complaints) to identify when the current offerings may no longer be appropriate for the customer, or when the opportunity for a larger sale arises. AM

The system uses the capabilities of Salesforce 1 together with "Quote to Cash Intelligence" http://apttus.com/solutions/quote-to-cash-intelligence/ to monitor customer trends and to prompt the Apttus system accordingly

Excerpt from web page:

- Advance Visibility into Revenue Issues: Get more time to respond to revenue issues
 with timely notice on revenue changes, intelligent revenue recommendations, and
 real-time views into key risks and drivers across the Quote-to-Cash
 process.
- Immediate Control over Quote-to-Cash Drivers: Make an immediate impact to revenue through assignable action items, behavioural changes to increase revenue including gamification, and updating multiple deals across Quote-to-Cash processes
- **Granular Insight into Drivers for Peak Performance:** Confidently get on the best path to meeting financial targets through detailed understanding of Quote-to-Cash trade-offs, rapid what-if scenario planning and enterprise collaboration

Reference 4: Apttus Revenue Management Data Sheet



Excerpt:

Renewals with contract visibility. Apttus captures critical purchase information defined in sales contracts, including purchase history, pricing agreements, amendments and contract terms. When it comes time to renewals and add-on orders, sales teams can use this information to create better and bigger renewal quotes with relevant upsell and cross-sell opportunities, product upgrades and price updates.

Reference 2: Apttus Contract Management User Guide pages 29

Post Activation Phases

The contract process goes through typical sequences of events, or *phases*.

The following phases encompass the various options for managing the Agreement life cycle:

- Amendment
- Renewal
- Termination
- Expire

Amendment

During the term of the agreement you may need to modify the contract. For example, the language or terms of the contract. The *Amend* action is used for this functionality. The *Amend* action creates a new version of the agreement record. The new, amended record shares the same base agreement number as the original with the decimal point incremented by one. All the data from the original version is copied into the new version. The new version can then go through the same agreement process as described above. On execution of the amendment, the status category of the original version of the agreement is changed to **Amended** from **In Effect**.

Renewal

Towards the end of the term of the agreement, you may want to renew the agreement for a further period of time. In such a scenario, the *Renew* action would create a new version of the agreement. The agreement can then be executed after updating the term of the agreement. You can quickly identify contract renewal candidates, allowing plenty of time to act, and create new contract drafts based on the previous contract.



4.1.4.2 L4: Recommend Appropriate Offerings (1.1.1.4.5.2) – Mapping Details

Process Identifier: 1.1.1.4.5.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Recommend Appropriate Offerings (1.1.1.4.5.2)

Mandatory

Based on the data collected, recommend more appropriate offerings to the customer. AM

This task is completed with a combination of two steps within the Apttus system, firstly the change prompt is received from salesforce 1 or the Apttus "Quote to cash Intelligence". Secondly the system will then use the same Configuration & Pricing process as originally used described in to determine the correct solution for the new circumstances. See <u>L4</u>: Identify Potential Solutions (1.1.1.4.1.2) — Mapping Details

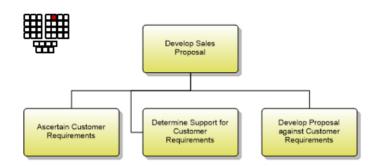
Reference 4: Apttus Revenue Management Data Sheet

Excerpt:

Renewals with contract visibility. Apttus captures critical purchase information defined in sales contracts, including purchase history, pricing agreements, amendments and contract terms. When it comes time to renewals and add-on orders, sales teams can use this information to create better and bigger renewal quotes with relevant upsell and cross-sell opportunities, product upgrades and price updates.



4.1.5 L3: Develop Sales Proposal (1.1.1.4.6)



Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Develop a sales proposal to respond to the customer's requirements

Extended Description

The purpose of this process is to develop a sales proposal to respond to the customer's requirements. This process commences following approval by the Qualify Customer process. The development of a sales proposal may require the selection of a standard product offering, may require the development of a non-standard offering, or may require the creation of a project team to construct an offering in response to a customer's Request For Proposal. In all cases, the processes are responsible for ascertaining the customer's requirements, determining the ability of the enterprise to support the customer requirements, and developing a proposal (or proposals) for the customer which meets the stated requirements. These processes assess the extent of enterprise support required to develop the sales proposal, marshal the necessary support across the enterprise and administer the sales proposal development activity to ensure that any timing constraints associated with eth customer requirements are achieved.

Note that development of a non-standard sales proposal or the response to a customer's RFP may require the development of unique solution designs. The development of unique solutions, within the context of current deployed capabilities, uses the Design Solutions process within Service Management & Operations to undertake the necessary feasibility studies. Where current capabilities are not able to support customer's requirements, the Product & Offer Capability Delivery processes are invoked to undertake any necessary assessment and business case development.



Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.1.5.1 L4: Ascertain Customer Requirements (1.1.1.4.6.1) – Mapping Details

Process Identifier: 1.1.1.4.6.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

•

LEVEL 4 PROCESS MAPPING DETAILS

Ascertain Customer Requirements (1.1.1.4.6.1)

Mandatory

Ascertain the customer's requirements. The development of a sales proposal may require the selection of a standard product offering, may require the development of a non-standard offering, or may require the creation of a project team to construct an offering in response to a customer's Request For Proposal. AM

.....

This task is also supported by the **Guided Selling** feature described earlier.



4.1.5.2 L4: Determine Support for Customer Requirements (1.1.1.4.6.2) – Mapping Details

Process Identifier: 1.1.1.4.6.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Determine Support for Customer Requirements (1.1.1.4.6.2)

Mandatory

Determine the ability of the enterprise to support the customer requirements. These processes assess the extent of enterprise support required to develop the sales proposal, marshal the necessary support across the enterprise and administer the sales proposal development activity to ensure that any timing constraints associated with the customer requirements are achieved. AM

.....

These actions are supported through the Apttus Advanced Workforce & Approvals processes

Reference 5: Apttus Advanced Workforce & Approvals Data Sheet

Salesforce.com offers a strong workflow engine that helps automate approvals, processes and redundant tasks. You can use salesforce.com workflows for greater control over your sales process, discounts and exceptions, so you can get higher productivity and more wins. But if you have a global organization or complex sales process, you probably need something more.

That's where Apttus Advanced Workflows and Approvals (AWA) fits in. Apttus provides over a dozen advanced workflow capabilities that can help you get much more out of standard and custom Salesforce objects. Because Apttus is built on Salesforce 1, it uses the same administration as Salesforce. Below is a summary of just some of these advanced features.



4.1.5.3 L4: Develop Proposal against Customer Requirements (1.1.1.4.6.3) – Mapping Details

Process Identifier: 1.1.1.4.6.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

.

LEVEL 4 PROCESS MAPPING DETAILS

Develop Proposal Against Customer Requirements (1.1.1.4.6.3)

Mandatory

Develop a proposal (or proposals) for the customer which meets the stated requirements. The development of a sales proposal may require the selection of a standard product offering, may require the development of a non-standard offering, or may require the creation of a project team to construct an offering in response to a customer's Request For Proposal. Note that development of a non-standard sales proposal or the response to a customer's RFP may require the development of unique solution designs. The development of unique solutions, within the context of current deployed capabilities, uses the Design Solutions process within Service Management & Operations to undertake the necessary feasibility studies. Where current capabilities are not able to support customer's requirements, the Product & Offer Capability Delivery processes are invoked to undertake any necessary assessment and business case development.

This task is also supported by the <u>Guided Selling</u> feature described earlier together with the <u>Contract Management</u> features also described earlier (includes <u>non-standard</u> offerings & contracts)



4.1.6 L3: Manage Sales Accounts (1.1.1.4.7)

Not in Scope

4.1.7 Supporting Evidence References (Works Cited)

[Ref 1]	Apttus Configuration & Pricing (CPQ) User Guide v.8.5.0829.17
[Ref 2]	Apttus Contract Management User Guide v7.5.0267
[Ref 3]	Apttus Order Management Data Sheet
[Ref 4]	Apttus Revenue Management Data Sheet
[Ref 5]	Apttus Advanced Workforce & Approvals Data Sheet



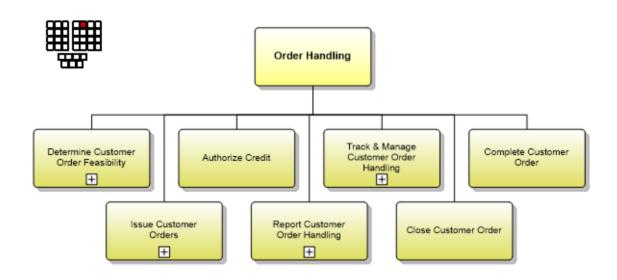
4.1.8 Summary of Level 3 & Level 4 Scores

Table 4-1 Selling (1.1.1.4) – Conformance Scores

Operations: Level 1: 1.1.1 - Customer Relationship Man	agement
Level 2: 1.1.1.4 - Selling	Conformance
1.1.1.4.1 - Manage Prospect	5
1.1.1.4.1.1 - Analyze Prospect Needs	100%
1.1.1.4.1.2 - Identify Potential Solutions	100%
1.1.1.4.1.3 - Assign Prospect to Sales Channel	100%
1.1.1.4.1.4 - Track & Report Prospect	100%
1.1.1.4.2 - Qualify Opportunity	Not in Scope
1.1.1.4.2.2 - Define Alternative/Customized Solutions	N/A
1.1.1.4.2.3 - Assess Potential Development & Risk	N/A
1.1.1.4.2.4 - Assess Strategic Impacts	N/A
1.1.1.4.3 - Negotiate Sales/Contract	5
1.1.1.4.3.1 - Negotiate Standard Terms & Conditions	100%
1.1.1.4.3.2 - Develop & Negotiate Non-standard Terms &	100%
Conditions	
1.1.1.4.3.3 - Obtain Customer Agreement	100%
1.1.1.4.3.4 - Create Customer Order	100%
1.1.1.4.5 - Cross/Up Selling	5
1.1.1.4.5.1 - Analyze Customer Trends	100%
1.1.1.4.5.2 - Recommend Appropriate Offerings	100%
1.1.1.4.6 - Develop Sales Proposal	5
1.1.1.4.6.1 - Ascertain Customer Requirements	100%
1.1.1.4.6.2 - Determine Support for Customer	100%
1.1.1.4.6.3 - Develop Proposal against Customer	100%
Requirements	
1.1.1.4.7 - Manage Sales Accounts	Not in Scope
1.1.1.4.7.1 - Contact Customer (on regular basis)	N/A
1.1.1.4.7.2 - Develop Contacts & Leads	N/A
1.1.1.4.7.3 - Update Sales Repository	N/A



4.2 L2: Order Handling (1.1.1.5)



Process Identifier: 1.1.1.5

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Responsible for accepting and issuing orders.

Extended Description

Order Handling processes are responsible for accepting and issuing orders. They deal with preorder feasibility determination, credit authorization, order issuance, order status and tracking, customer update on order activities and customer notification on order completion. Responsibilities of the Order Handling processes include, but are not limited to:



- · Issuing new customer orders, modifying open customer orders or canceling open customer orders;
- \cdot Verifying whether specific non-standard offerings sought by customers are feasible and supportable;
- · Checking the credit worthiness of customers as part of the customer order process;
- · Testing the completed offering to ensure it is working correctly;
- · Updating of the Customer Inventory Database to reflect that the specific product offering has been allocated, modified or cancelled;
- · Assigning and tracking customer provisioning activities;
- · Managing customer provisioning jeopardy conditions; and
- · Reporting progress on customer orders to customer and other processes.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

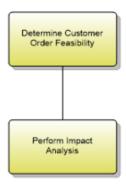
Interactions

Reserved for future use.



4.2.1 L3: Determine Customer Order Feasibility (1.1.1.5.1)





Process Identifier: 1.1.1.5.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Check the availability and/or the feasibility of providing and supporting standard and customized product offerings where specified to a customer.

Extended Description

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.

These processes invoke requests to SM&O provisioning processes to determine the availability and supportability of product offerings to a customer.

These processes are also responsible for determining whether the offering can be supported by other CRM processes.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.



Optional

Reserved for future use.

Interactions

Reserved for future use.

4.2.1.1 L4: Perform Impact Analysis (1.1.1.5.1.1) – Mapping Details

Process Identifier: 1.1.1.5.1.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Perform Impact Analysis (1.1.1.5.1.1)

Mandatory

Analyses the customer order for further impact particularly deals with RFCs (request for change) AM

Ref [6] Apttus Order Management PowerPoint

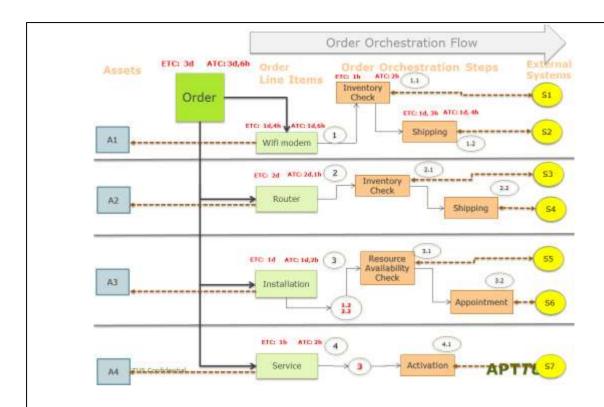
This task is completed by a combination of two aspects of the Apttus Order Handling process

Order Orchestration: where the fulfilment of orders is coordinated – including product shipment, software provisioning and resource scheduling and *Change Orders:* where inprogress orders can be moved, added to changed or deleted, orders split credits applied etc



Apttus Order Management Place Order through a quote Place orders directly from a contract Order from an e-commerce portal Allow their party reps to place orders using communities Upload orders in bulk from ian excel or cay file. *Import orders from third party tools *Search for the orders based on select parameters *Add to the existing order while it is in -flight *Modify the Order while it is in-flight *Cancel the Order in-flight before fulfillment *Unwind Orders in hulk MACD operations *Consolidate the order based on configurable parameter like geography, product type etc. *Create an action plan all the way to the elementary tasks. Display the activity (ordnestration) plan in a user friendly GUI Calculate the critical path Display the critical path on the UI Notify and remend the stakeholders of the task assignment Perform jeopardy management *Auto recalculate the orchestration plan and, the critical path when a change order event occurs Leverage the ERP/ESS/BSS_API's to perform packaging, shipping and billing activities Inventory validation Perform any contract change activities as is needed. *Integrate the carrier's shipping status into the front end Order status display. APTTUS APT7US Confidential Ref[17] Apttus Order Management User Guide "outbound flow for inventory validation and shipping"





For each order item a critical path analysis is completed and the status monitored

Product	Delay	Reason	On Critical Path	J Priority	Action
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
Router					Place order On Hold and Escalate to Higher
Kouter	5-10 days	Backorder/ damaged goods	Yes	2	authority
	10-20 days	Backorder/ damaged goods	Yes	1	Cancel Order workflow
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
Wifi Modem					Place order On Hold and Escalate to Higher
WIII MODEIII	5-10 days	Backorder/ damaged goods	Yes	2	authority
			Yes	1	Cancel Order workflow
	0-3 days	Deepndant step delay	Yes	4	No Action needed
	3-5 days	Deepndant step delay	Yes	3	Postpone to next ETA workflow
Installation					
Appoinment	5-10 days	Resource not available	Yes	2	Place order On Hold Escalate to Higher authorit
		Deepndant step delay & Resource			
	10-20 days	not available	Yes	1	Cancel Order workflow

Calculating Jeapordy Scare using Numeric expression

Product	Delay	Reason	On Critical Path	Priority	Action
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	No	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
		Damaged goods with no			Place order On Hold and Escalate to Higher
Router	3-5 days	replacements	Yes	2	authority
					Place order On Hold and Escalate to Higher
	5-10 days	Backorder/ damaged goods	Yes	2	authority
	10-20 days	Backorder/ damaged goods	Yes	1	Cancel Order workflow

APTTUS Confidential APTTUS



In-flight changes to the order, addition / deletions etc, are made to the shopping cart and require a re-price.

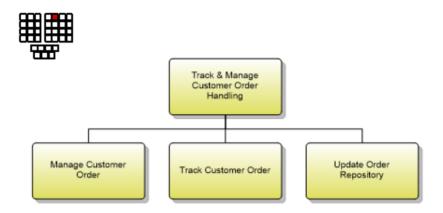
These changes are factored into the order orchestration plans – inventory checks etc are made and the plan adjusted accordingly.



4.2.2 L3: Authorize Credit (1.1.1.5.2)

Not in Scope

4.2.3 L3: Track & Manage Customer Order Handling (1.1.1.5.4)



Process Identifier: 1.1.1.5.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

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

Extended Description

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

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

- Scheduling, assigning and coordinating customer provisioning related activities;
- Generating the respective service order creation request(s) to Issue Service Orders based on specific customer orders;
- Escalating status of customer orders in accordance with local policy;
- Undertaking necessary tracking of the execution process;



- Adding additional information to an existing customer order;
- Modifying information in an existing customer order;
- Modifying the customer order status;
- Cancelling a customer order when the initiating sales request is cancelled;
- Monitoring the jeopardy status of customer orders, and escalating customer orders as necessary
- Indicating completion of a customer order by modifying the customer order status.

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.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.



4.2.3.1 L4: Manage Customer Order (1.1.1.5.4.1) – Mapping Details

Process Identifier: 1.1.1.5.4.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

1.1.1.5.4.1 Manage Customer Order

Brief Description (no mandatory or extended description available)

Schedule, assign and coordinate customer provisioning related activities.

Generate the respective service order creation request(s) to Issue Service Orders based on specific customer orders.

Escalate status of customer orders in accordance with local policy.

Add additional information to an existing customer order. Modify information in an existing customer order.

Cancel a customer order when the initiating sales request is cancelled.

If some specific product components are delivered directly by suppliers/partners, initiate requests, through S/P Requisition Management, for the delivery by the supplier/partner of the specific product components. AM

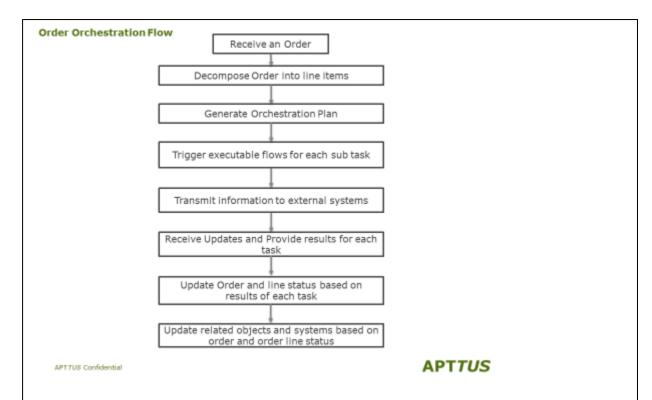
.....

Ref [6]: Apttus Order Management PowerPoint

This is achieved through a combination of the Apttus Order Management process and it's interworking with the Salesforce 1

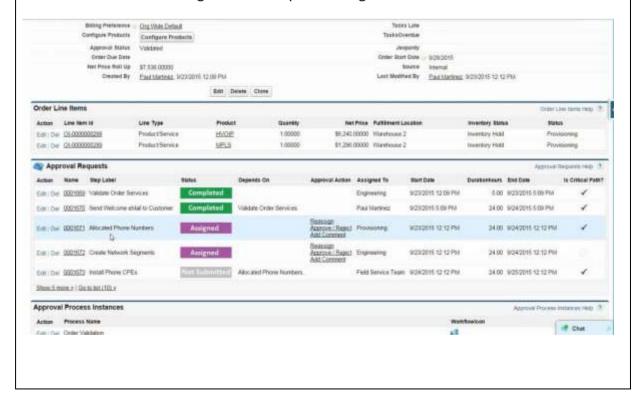
Amongst other actions, the Apttus process shown below, captures the order details consolidates orders across partners, orchestrates the completion & manages changes.





Ref [17] Apttus Order Management User Guide page 13

Escalation is invoked through the critical path management as below:





A more detailed summary status is also available as shown below. This is also part of the Order Management system. It does not appear in the User Guide but is part of the slide set associated with the demonstration video that forms the basis of the user guide. Page 5 Refers

"Customers can also view the orchestration plan and perform order jeopardy management"

Product	Delay	Reason	On Critical Path	Priority	Action
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
Router	5-10 days	Backorder/ damaged goods	Yes	2	Place order On Hold and Escalate to Higher authority
	10-20 days	Backorder/ damaged goods	Yes		Cancel Order workflow
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
Wifi Modem	5-10 days	Backorder/ damaged goods	Yes	2	Place order On Hold and Escalate to Higher authority
	10-20 days	Backorder/ damaged goods	Yes	1	Cancel Order workflow
	0-3 days	Deepndant step delay	Yes	4	No Action needed
	3-5 days	Deepndant step delay	Yes	- 3	Postpone to next ETA workflow
Installation Appoinment	5-10 days	Resource not available	Yes	2	Place order On Hold Escalate to Higher authorit
	10-20 days	Deepndant step delay & Resource not available	Yes	1	Cancel Order workflow

Calculating Jeapordy Scare using Numeric expression

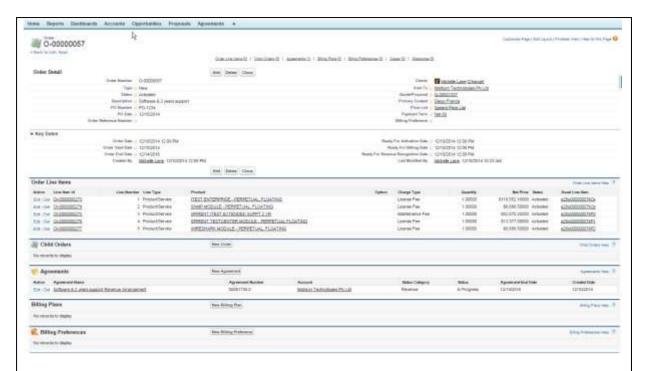
Product	Delay	Reason	On Critical Path	Priority	Action
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	No	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
Router	3-5 days	Damaged goods with no replacements	Yes	2	Place order On Hold and Escalate to Higher authority
	5-10 days	Backorder/ damaged goods	Yes		Place order On Hold and Escalate to Higher authority
	10-20 days	Backorder/ damaged goods	Yes	3	Cancel Order workflow

APTTUS Confidential

APTTUS

The screenshot below (left hand side halfway down) shows an example of an order being split into its component parts



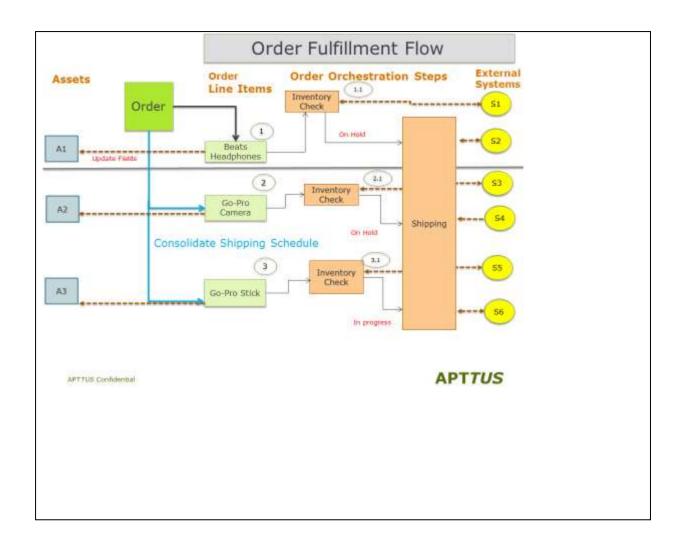


Changes to the order are order are made through the **Order Orchestration**: where the fulfilment of orders is coordinated – including product shipment, software provisioning and resource scheduling and **Change Orders**: where in-progress orders can be moved, added to changed or deleted, orders split credits applied etc.

When part of the order is being delivered by a 3rd party, *Order* Consolidation happens, that is the complete order is consolidated and shipped. An example is shown below

Ref [17] Apttus Order Management User Guide "Order Fulfillment"







4.2.3.2 L4: Track Customer Order (1.1.1.5.4.2) - Mapping Details

Process Identifier: 1.1.1.5.4.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

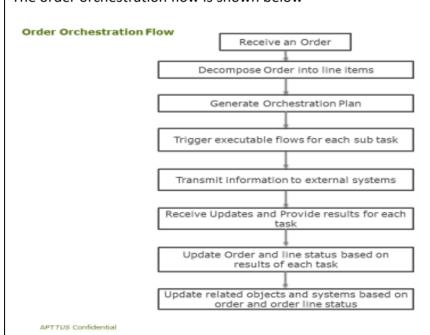
1.1.1.5.4.2 Track Customer Order

Brief Description (No mandatory or extended description available)

Undertake necessary tracking of the execution process. Modify the customer order status. Monitor the jeopardy status of customer orders, escalating customer orders as necessary. AM

Ref [6]: Apttus Order Management PowerPoint presentation q1-2015

The order orchestration flow is shown below



APTTUS

The steps relevant to this Level 4 activity are those after the orchestration plan has been created.



The activities are shown in more detail here:

Apttus Order Management

- Place Order through a quote
 Place orders directly from a contract.
- Order from an e-commerce portal
- +Allow third party reps to place orders using communities
 upload orders in bulk from an excel or ear file
- +Import orders from third party tools

- -Add to the existing order while it is in -flight
 -Modify the Order while it is in-flight
 -Cancel the Order in-flight before fulfillment
- Authorization December 1

MACE operations

- Decompose the order into its constituent parts
- Consolidate the order based on configurable parameter like geography, product type etc.
 Create an action plan all the way to the elementary tasks.
- Display the activity (orthestration) plan in a user friendly GUI Calculate the critical path
- *Display the critical path on the UI
- ·Notify and remind the stakeholders of the task assignment
- Perform Jeopardy management.
- *Auto recalculate the orchestration plan and the critical path when a change order event occurs

- Leverage the ERP/ESS/BSS APT's to perform packaging, shipping and billing activities
- Perform any contract change activities as is needed.
- Integrate the carrier's shipping status into the front end Order status display.

APTTUS Confidential

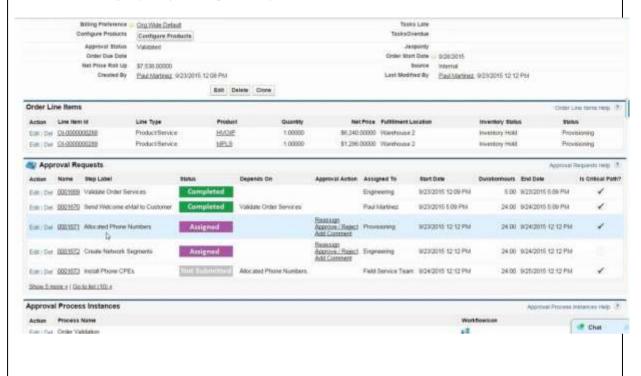
APTTUS

Jeopardy management activities include

- Analyze Critical path based on step dependencies
- Identify if each item is on schedule
- If item is delayed, identify Alternate Action Scenarios (workflows) at order line item
- Design a fulfillment plan for each order. Update the fulfillment plan for order
- Identify Alternate Actions at Order level (inform Customer of late order/ enable promotions/discounts for late orders)
- Set jeopardy scores using user defined dimensions/ matrices



Escalation processes would be identified as part of the Orchestration plan and triggered by the fulfilment / jeopardy management process as below.



See also 1.1.1.5.4.1 Manage Customer Order above



4.2.3.3 L4: Update Order Repository (1.1.1.5.4.3) – Mapping Details

Process Identifier: 1.1.1.5.4.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

1.1.1.5.4.3 Update Order Repository

Mandatory

Create, update and delete order information and update order state into order inventory/repository AM

Depending on the type of information, these tasks are either done at the done at the Configuration & Pricing processes - for order items, or at the contract management processes for items such as delivery address

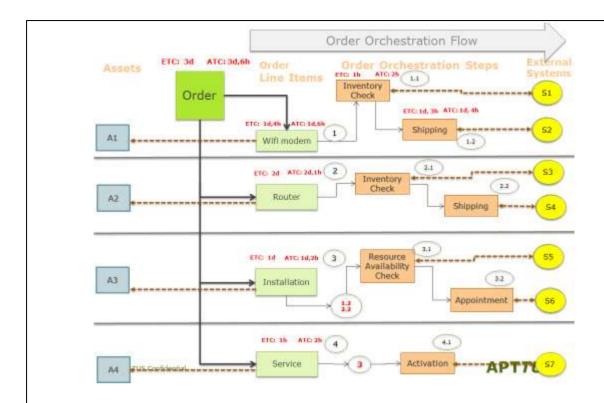
Ref [6]: Apttus Order Management PowerPoint Presentation q1-2015

Order Changes – create, update and delete order information are handled by the Apttus Order Management processes as below

- Change Orders: Manage in-flight changes to orders, including MACDs (Move Add Change Delete), split orders, credits and more.
- Back Office Integration: Integrate with third-party systems, such as SAP, Oracle and Flexera, for inventory status, order fulfillment, service provisioning, taxes and more.

An example of the integration with a back office Inventory system is shown here





Although not explicitly shown in the above flow, the interaction between the Apttus process and the inventory system would be appropriate throughout the complete order delivery stage.

Integration to back order system is via an API



4.2.4 L3: Complete Customer Order (1.1.1.5.5)

Process Identifier: 1.1.1.5.5

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase

Extended Description

The purpose of the Complete Customer Order processes is to manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase. The customer may participate in commissioning or end-to-end testing and then satisfactory delivery. The customer is trained in the functionality and benefits of the solution. These processes are responsible for ensuring that any customer information required by other CRM processes is updated as part of the customer order completion.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.2.4.1 L3: Complete Customer Order (1.1.1.5.5) - Mapping Details

Note: There are no level 4 processes associates with Complete Customer Order so the mapping has been done at level3

LEVEL 3 PROCESS MAPPING DETAILS

Complete Customer Order (1.1.1.5.5)

Brief Description

Manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase



Extended Description

The purpose of the Complete Customer Order processes is to manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase.

The customer may participate in commissioning or end-to-end testing and then satisfactory delivery. The customer is trained in the functionality and benefits of the solution. These processes are responsible for ensuring that any customer information required by other CRM processes is updated as part of the customer order completion. AM

Any post-installation information and interaction would have been identified as services, as part of the original requirements and be included in the Order and the Order Orchestration part of the Order management processes. So essentially post implementation activities become line items in the order and are treated accordingly

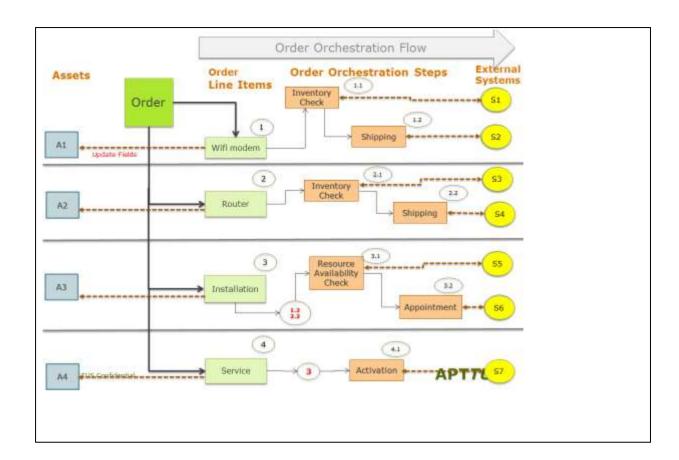
Excerpt from Apttus Order management PowerPoint



- Leverage the ERP/ESS/BSS API's to perform packaging, shipping and billing activities
- Inventory validation
- . Perform any contract change activities as is needed.
- •Integrate the carrier's shipping status into the front end Order status display.

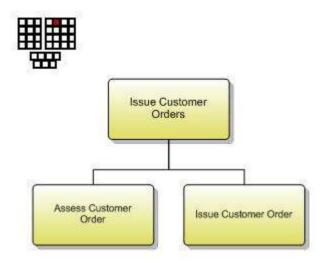
The example flow below, shows Assets 3 (Installation) and 4 (Service for example training) are managed as component parts of a single order







4.2.5 L3: Issue Customer Orders (1.1.1.5.6)



Process Identifier: 1.1.1.5.6

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Issue correct and complete customer orders

Extended Description

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. 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. 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. 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. 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. 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.

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.
Explanatory
Reserved for future use.
Mandatory
Reserved for future use.
Optional
Reserved for future use.
Interactions
Reserved for future use.



4.2.5.1 L4: Assess Customer Order (1.1.1.5.6.1) – Mapping Details

Process Identifier: 1.1.1.5.6.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS 1.1.1.5.6.1 - Assess Customer Orders

Brief Description (No mandatory or extended descriptions associated with this process)

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. 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. The customer order may also relate to the cancellation of previously purchased specific services. AM

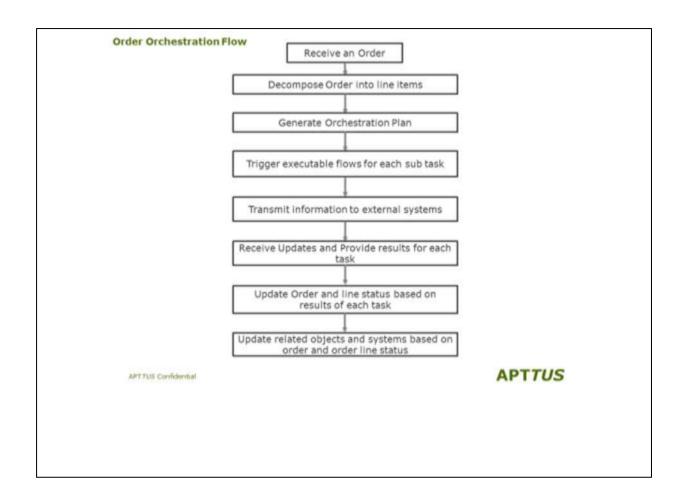
Ref [6]: Apttus Order Management PowerPoint presentation q1-2015

The Apttus solution satisfies this activity as shown below. The order is broken down into its component parts and each component treated individually and as part of the main order.

The Order Orchestration flow, also shown below, provides an example where 4 separate assets are involved in a single order

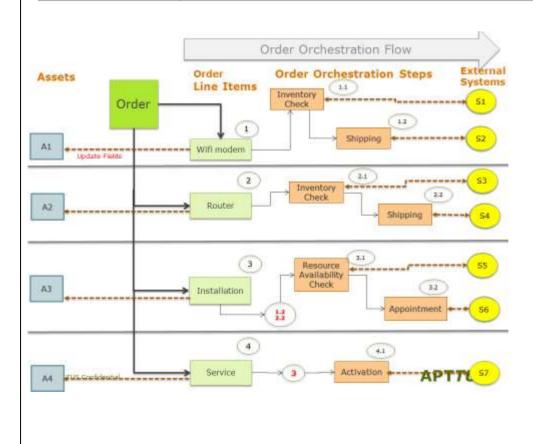
Ref[17] Apttus Order Management User Guide Pages 6 & 7 & 14







Key Functionality	Details		
Order Break down	Decompose the order into its constituent parts		
Order line item consolidation	Consolidate the order based on configurable parameter like geography, product type etc		
-Send Order line item information to external fulfillment systems -Receive information from External fulfillment systems and update order line item and lin -Perform inventory validation and prioritize customers as is applicable -Perform resource validation and prioritize customers as is applicable			
Status and Field Updates	Update order line, asset line and order status based on fulfillment status updates from external system		
Orchestration Plan	Create an action plan all the way to the elementary tasks		
Generate gantt chart	Calculate the critical path		
Display GUI	Display the activity (orchestration) plan in a user friendly GUI		
Notificeitons	Notify and remind the stakeholders of the task assignment		
Jeopardy Management	Perform jeopardy management and suggest action plans		





4.2.5.2 L4: Issue Customer Order (1.1.1.5.6.2) – Mapping Details

Process Identifier: 1.1.1.5.6.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS 1.1.1.5.6.2 - Issue Customer Orders

Brief Description (No mandatory or extended descriptions associated with this process)

Issue a customer order, 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, if a specific feasibility assessment has been previously undertaken, create a record of the relevant initiating request information.

If a specific feasibility assessment has not been previously undertaken, mark the issued customer order as requiring special handling. AM

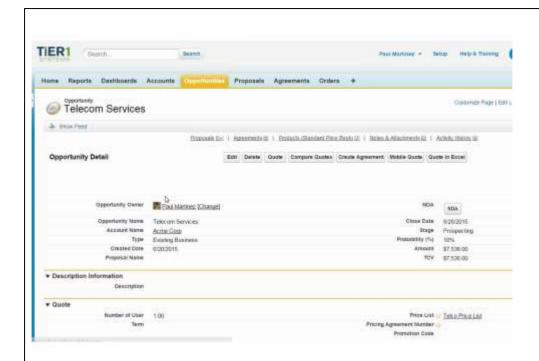
The Apttus solution creates the Order as part of the higher level process where the customer's requirement is captured and priced and a subsequent contract generated and signed. This information is consolidated within the Apttus solution so that subsequent actions, like creating and issuing orders, are associated with the initial sales information

Orders can be raised in a number of ways:

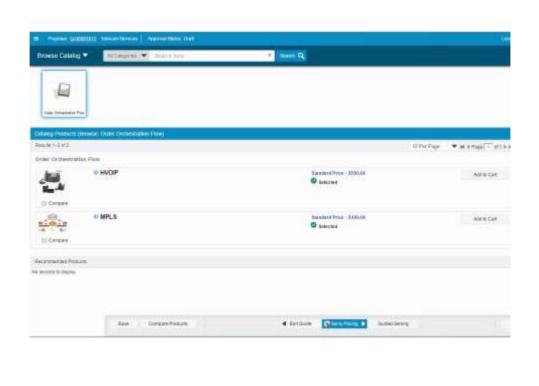
- Place Order through a quote
- Place orders directly from a contract
- Order from an e-commerce portal
- · Allow third party reps to place orders using communities
- Upload orders in bulk from an excel or csv file
- Import orders from third party tools

As part of the order orchestration process the initial sales information is captured





The next stage is to import the order details





If a specific feasibility assessment has not been previously undertaken, mark the issued customer order as requiring special handling.

Ref [1] Apttus Configuration & Pricing (CPQ) User Guide

Page 28 (Finalising a Product)

Page 33 (Generating a Quote/Proposal)

Page 50 (Appendix A - Glossary of Apttus Approval Stages)

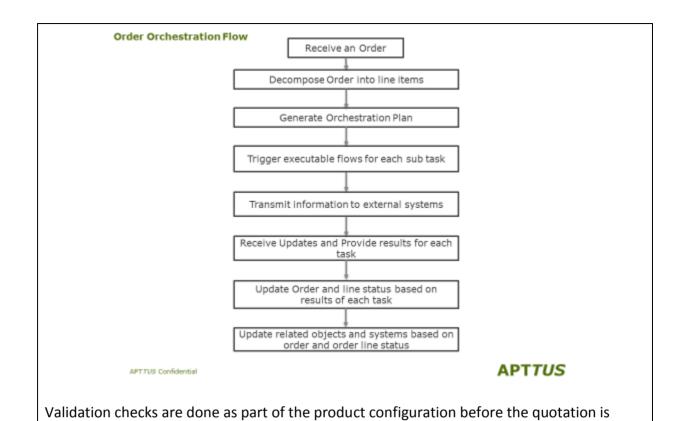
So any specific feasibility requirements will have been captured as part of the initial sale / quotation where approval for the changes to be made as a result of special requirements will have been sought and obtained

<u>Example</u>: Are there enough items in the inventory. Unusual requirements will also be captured here and be available to the Order Capture and Orchestration sub-processes in the higher level Order Management process.

Key Capabilities

- Order Capture: Capture complete details for all your orders, including product configurations, quantities, pricing and payment terms.
- Multi-Channel Orders: Capture and consolidate orders across all channels, including E-Commerce, distributors and partners, and direct sales.
- Order Visibility: Provide customers complete view of their orders, including expected delivery dates, shipment costs and taxes.
- Order Orchestration: Coordinate fulfillment of orders, including product shipments, software provisioning and resource scheduling.





finalises Ref [1] Apttus Configuration & Pricing (CPQ) User Guide Page 28 prerequisites



4.2.6 L3: Report Customer Order Handling (1.1.1.5.7)



Process Identifier: 1.1.1.5.7

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

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

Extended Description

The objective of the Report Customer Order Handling processes is to monitor the status of customer orders, provide notifications of any changes and provide management reports. These processes are responsible for continuously monitoring the status of customer orders and managing notifications to processes and other parties registered to receive notifications of any status changes. Notification lists are managed and maintained by the Support Order Handling processes. These processes record, analyze and assess the customer order status changes to provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Order Handling process. These specialized summaries could be specific reports required by specific customers.

Explanatory

Reserved for future use.



Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.



4.2.6.1 L4: Monitor Customer Order Status (1.1.1.5.7.1) – Mapping Details

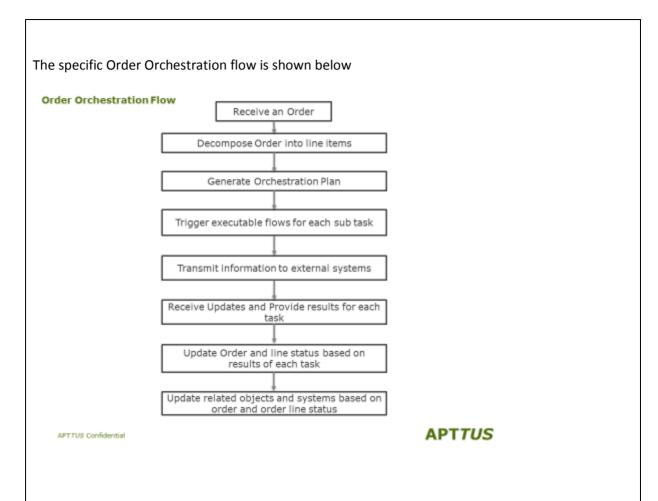
Process Identifier: 1.1.1.5.7.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS 1.1.1.5.7.1 - Monitor Customer Order Status Brief Description (No mandatory or extended descriptions associated with this process) Continuously monitor the status of customer orders. AM Ref [617: Apttus Order Management user Guide The high level Apttus Order Management footprint is shown below ERP / BSS / Order óss Management Third party Order Capture Orders Rev Rec e-commerce Billing Order Modification CPQ Provisioning Order Third Orchestration





Each component of an order is identified from the order and the status of each is monitored and managed by the system such that jeopardy is assessed and actions taken bottom box)



Major Components

Key Functionality	Details	
Order Break down	Decompose the order into its constituent perts	
Order line Item consolidation	Consolidate the order based on configurable parameter like geography, product type etc	
External System Interaction	*Send Order line item information to external fulfillment systems *Receive information from External fulfillment systems and update order line item and line item steps *Perform inventory validation and prioritize customers as is applicable *Perform resource validation and prioritize customers as is applicable	
Status and Field Updates	Update order line, asset line and order status based on fulfillment status updates from external system	
Orchestration Plan	Create an action plan all the way to the elementary tasks	
Generate gantt chart	Calculate the critical path	
Display GUI	Display the activity (orchestration plan in a user friendly GUI	
Notificaltons	Notify and remind the stakeholders of the task assignment	
Jeopardy Management	Vanagement Perform jeoperdymanagement and suggest action plans	

APTTUS Confidential

APTTUS

A typical jeopardy management screen is shown below



Product	Delay	Reason	On Critical Path	J Priority	Action
Router	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
	5-10 days	Backorder/ damaged goods	Yes		Place order On Hold and Escalate to Higher authority
		Backorder/ damaged goods	Yes		Cancel Order workflow
Wifi Modem		Backorder	Yes		No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
	5-10 days	Backorder/ damaged goods	Yes		Place order On Hold and Escalate to Higher authority
	10-20 days	Backorder/ damaged goods	Yes	1	Cancel Order workflow
	0-3 days	Deepndant step delay	Yes	4	No Action needed
	3-5 days	Deepndant step delay	Yes	3	Postpone to next ETA workflow
Installation					
Appoinment	5-10 days	Resource not available	Yes	2	Place order On Hold Escalate to Higher author
		Deepndant step delay & Resource			
	10-20 days	not available	Yes	1	Cancel Order workflow

Calculating Jeapardy Scare using Numeric expression

Product	Delay	Reason	On Critical Path	Priority	Action
	0-3 days	Backorder	Yes	4	No Action needed
	3-5 days	Backorder/ damaged goods	No	4	No Action needed
	3-5 days	Backorder/ damaged goods	Yes	3	Initiate Split order workflow
		Damaged goods with no			Place order On Hold and Escalate to Higher
Router	3-5 days	replacements	Yes	2	authority
					Place order On Hold and Escalate to Higher
	5-10 days	Backorder/ damaged goods	Yes	2	authority
	10-20 days	Backorder/ damaged goods	Yes	1	Cancel Order workflow

APTTUS Confidential APTTUS



4.2.6.2 L4: Manage Customer Order Status Notification (1.1.1.5.7.2) – Mapping Details

Process Identifier: 1.1.1.5.7.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS 1.1.1.5.7.2 Manage Customer Order Status Notification Brief Description (No mandatory or extended descriptions associated with this process) Manage notifications to processes and other parties registered to receive notifications of any status changes. AM Ref [17]: Apttus Order Management User Guide ERP / BSS , Order Management Third Order Capture Rev Rec e-commerce Billing Order Modification CPQ Provisioning Order Third Orchestration The Apttus solution can be integrated via APIs with a range of 3rd party systems, for example.



External System Interaction	 Send Order line item information to external fulfillment systems Receive information from External fulfillment systems and update order line item and line item steps Perform inventory validation and prioritize customers as is applicable Perform resource validation and prioritize customers as is applicable

Customers have visibility of the order status

Key Capabilities

- Order Capture: Capture complete details for all your orders, including product configurations, quantities, pricing and payment terms.
- Multi-Channel Orders: Capture and consolidate orders across all channels, including E-Commerce, distributors and partners, and direct sales.
- Order Visibility: Provide customers complete view of their orders, including expected delivery dates, shipment costs and taxes.



4.2.6.3 L4: Report Customer Order Status (1.1.1.5.7.3) – Mapping Details

Process Identifier: 1.1.1.5.7.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

1.1.1.5.7.3 - Report Customer Order Status

Brief Description (No mandatory or extended descriptions associated with this process)

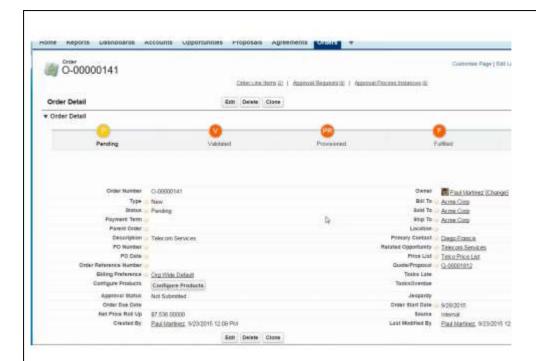
Record, analyse and assess the customer order status changes to...

...provide management reports and any specialized summaries of the efficiency and effectiveness of the overall Order Handling process, including specific reports required by specific customers. AM

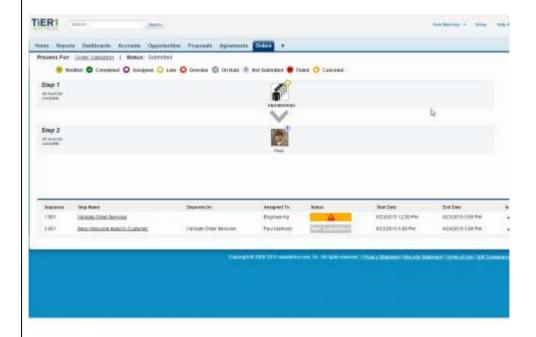
Management reports are created in Salesforce.

Customer order status information is monitored and captures as part of the Order Management processes. In the example below, the status is shown as "pending"





In the screenshot below additional status information is shown in a line near to the top



Ref [6]: Apttus Order Management PowerPoint Q1-2015



The system can support a number of reportable metrics including

- On time delivery
- Order fill rate
- Order Cycle time
- Orders Past Due
- Orders on Backorder
- Orders on Hold
- Orders in Error
- Order line items in Jeopardy
- Product/Service level order performance (# of orders product has been in, # of times product was past due, # of times Product was backordered,# of escalations on each product,6 Sigma process improvement)



4.2.7 L3: Close Customer Order (1.1.1.5.8)

Process Identifier: 1.1.1.5.8

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

4.2.7.1 L3: Close Customer Order (1.1.1.5.8) - Mapping Details

NOTE: No decomposition to Level 4 processes, hence mappings provided against the Level 3 process descriptions and implied tasks.

LEVEL 3 PROCESS MAPPING DETAILS

1.1.1.5.8 - Close Customer Order

Brief Description

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.

Extended Description

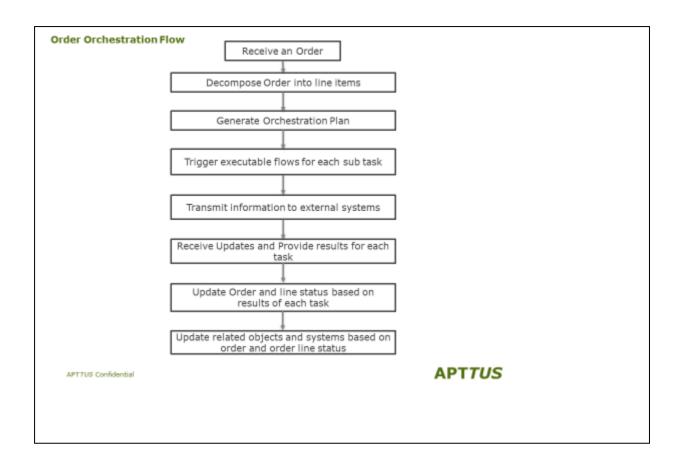
The objective of the Close Customer Order processes is to close a customer order when the customer provisioning activities have been completed. These processes monitor the status of all open customer orders, and recognize that a customer order is ready to be closed when the status is changed to completed.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

Ref [6]: Apttus Order Management PowerPoint Q1-2015

Referring to the Order Orchestration flow below the last two steps satisfy this activity

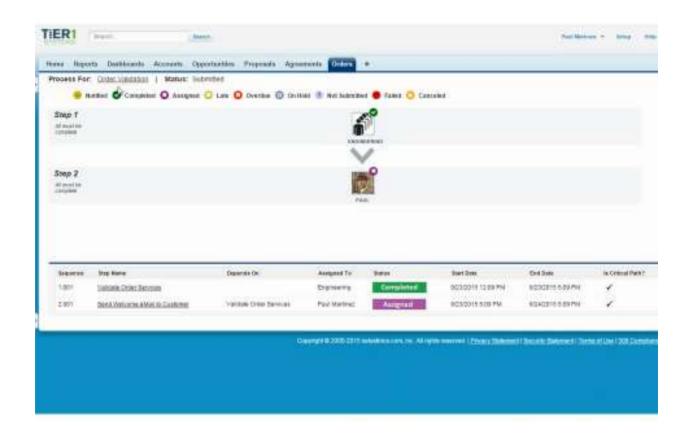
The status is continually monitored and related objects are updated accordingly. This included the "closed" status





The screenshot below shows that a status "Completed" exists. This is the trigger to close the order.







4.2.8 Supporting Evidence References (Works cited)

Reference 1 Apttus Configuration & Pricing (CPQ) User Guide may 2015

Reference 3 Order Management Data Sheet

Reference 6 Order management PowerPoint Presentation Q1-2015

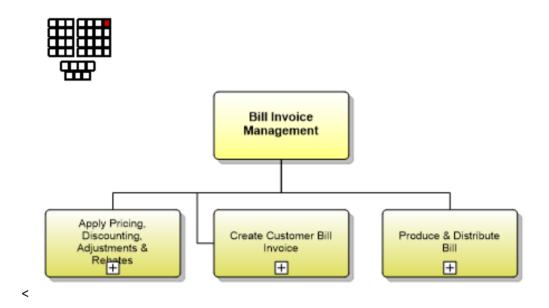
4.2.9 Summary of Level 3 & Level 4 Scores

Table 4-2 Order Handling (1.1.1.5) – Conformance Scores

Operations: Level 1: 1.1.1 - Customer Relationship Management				
Level 2: 1.1.1.5 - Order Handling	Conformance Scores			
1.1.1.5.1 - Determine Customer Order Feasibility	5			
1.1.1.5.1.1 - Perform Impact Analysis	100%			
1.1.1.5.2 - Authorize Credit	Not in Scope			
1.1.1.5.4 - Track & Manage Customer Order Handling	5			
1.1.1.5.4.1 - Manage Customer Order	100%			
1.1.1.5.4.2 - Track Customer Order	100%			
1.1.1.5.4.3 - Update Order Repository	100%			
1.1.1.5.5 - Complete Customer Order	5			
1.1.1.5.6 - Issue Customer Orders	5			
1.1.1.5.6.1 - Assess Customer Order	100%			
1.1.1.5.6.2 - Issue Customer Order	100%			
1.1.1.5.7 - Report Customer Order Handling	4.8			
1.1.1.5.7.1 - Monitor Customer Order Status	100%			
1.1.1.5.7.2 - Manage Customer Order Status Notification	100%			
1.1.1.5.7.3 - Report Customer Order Status	75%			
1.1.1.5.8 - Close Customer Order	5			



4.3 L2: Bill Invoice Management (1.1.1.10)



Process Identifier: 1.1.1.10

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Ensure the bill invoice is created, physically and/or electronically produced and distributed to customers, and that the appropriate taxes, discounts, adjustments, rebates and credits for the products and services delivered to customers have been applied.

Extended Description

Bill Invoice Management processes ensure the bill invoice is created, physically and/or electronically produced and distributed to customers, and that the appropriate taxes, discounts, adjustments, rebates and credits for the products and services delivered to customers have been applied. These processes are accountable for assuring that enterprise revenue is billed and invoices delivered appropriately to customers.

These processes are responsible for, but not limited to:

- Establishment and application of taxes and charges to the services delivered to customers;
- Application of the adjustment (adjustment decision done in Bill Inquiry Handling);



- Creation of accurate bill invoices including all adjustments, rebates, discounts, credits, etc.
- Production & distribution of bill in physical and/or electronic form to customers in accordance with the billing cycle;
- Forecasting of physical resources associated with bill production, such as paper and envelope quantities;
- Alignment and management of promotional material insertion into distributed bills
- Establishment and management of third party arrangements to support bill invoice generation, production and distribution.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

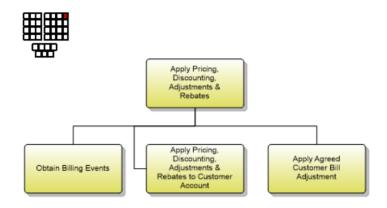
Reserved for future use.

Interactions

Reserved for future use.



4.3.1 L3: Apply Pricing, Discounting, Adjustments & Rebates (1.1.1.10.1)



Process Identifier: 1.1.1.10.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Ensure that the bill invoice is reflective of all the commercially agreed billable events and any bill invoice adjustments agreed between a Service Provider and the customer.

Extended Description

The purpose of the Apply Pricing, Discounting, Adjustments & Rebates process is to ensure that the bill invoice is reflective of all the commercially agreed billable events and any bill invoice adjustments agreed between a Service Provider and the customer. In addition, it ensures that the appropriate taxes, rebates (i.e. missed customer commitments) and credits are applied to the customer's bill invoice(s). This process contains the account and customer specific pricing, charges, discounting, credits and taxation for services delivered to the customer by the Service Provider. It accepts events that have been collected, translated, correlated, assembled, guided and service rated. It takes these events and determines the account or customer specific pricing, charges, discounts, and taxation that should be delivered to the invoice(s) for the customer. It reviews any agreed adjustments agreed in the previous billing period and includes these to the bill invoice. This process can occur in real-time as events are service rated, or can be on a scheduled on a periodic basis at the Service Provider's discretion.



4.3.1.1 L4: Obtain Billing Events (1.1.1.10.1) – Mapping Details

Process Identifier: 1.1.1.10.1.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Obtain Billing Events (1.1.1.10.1.1)

Mandatory

The purpose of the Obtain Billing Events process is to ensure that all billing events for services delivered to the customer by the Service Provider are available for processing. AM

Note: Apttus have created an Order Management user guide that includes the PowerPoint flows and the screenshots. The original source was a customer video demonstration that they broke off at the appropriate times to illustrate what was happening before resuming the demo. The base document was / is what they handed out after the demo. They have now removed the commercially sensitive material to create the User Guide.

The bill / invoice is created from a template. (see Render & Format Invoice (1.1.1.10.2.1 below)

Before the bill can be published all of the required fields in the invoice template must be populated.

This can be checked visually and approved Ref [11] Apttus Billing Management August 2015 page 60 Creating an Invoice

The Apttus solution interfaces with a range of systems to ensure that billing events that have been collected, translated, correlated, assembled, guided and service rated before determining the information would be applied to the customer's bill / invoice.

Internally the process is synchronised with the Order Management (Handling) and Selling processes within the Quote-to-Cash solution

Externally this is done via APIs



For billing information such as "customer address" "payment terms" etc billing is integrated with the Configure Price Quotation (CPQ) and Contract Lifecycle applications to track purchase and contract details until the order is fulfilled.

For items being ordered hardware, services etc the solutions footprint below, shows the Order Management processes passing pertinent information to the billing system.

Ref [17] Apttus Order Management User Guide Page 5

Solution Footprint (Cont.) Order Management Order Capture e-commerce Order Modification Order Order Modification Order Order Modification Order Order Order Modification Order Order

Changes to the order whilst it's in progress are captured by the "Amend" action of the Contract Management software Ref [2] Apttus Contract Management User Guide Page 29 where a new version of the contract is created. This ensures that events post initial contract are also captured

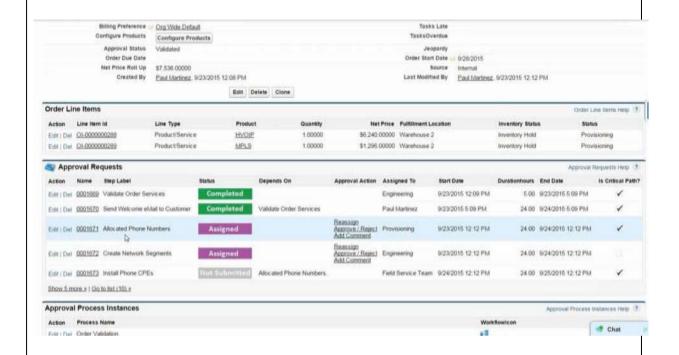
The modifies Order that included the changes to Billing Events is then passed to the Orchestration stage for the management of the execution

As the order moves through various stages of fulfillment and provisioning, the order



summary screen and the orchestration plan will reflect the same.

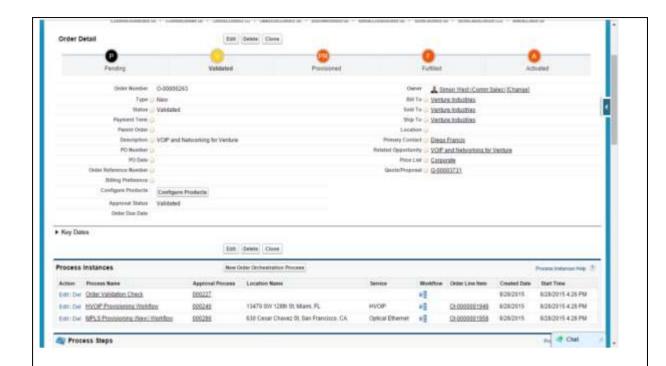
Ref [17] Apttus Order Management User Guide Page 13 & 10



When all of the component have been activated, tested and the customer has accepted them, then the status is updated and the billing system advised

The screenshot below shows the process flow from "pending" to "activated"





Usage based billing information "gallons bought" or "text messages sent" is taken from a Usage Schedule that is associated with the billing schedule. Usage input details can be found here Ref [11] Apttus Billing Management August 2015 page 50

Ref [11] Apttus Billing Management August 2015

Page 46 Billing Schedules

The billing generation date information is set in the Configure price Quotation (CPQ) process and the Billing Management process copies this.

Page 50 usage Input

"usage or metering data is loaded into an order and then usage rating associates to a usage Schedule"



4.3.1.2 L4: Apply Pricing, Discounting, Adjustments & Rebates to Customer Account (1.1.1.10.1.2) – Mapping Details

Process Identifier: 1.1.1.10.1.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Apply Pricing, Discounting, Adjustments & Rebates to Customer Account (1.1.1.10.1.2)

Mandatory

The purpose of Determine Customer Account process is to determine the customer account or customer specific pricing, charges, discounts, and taxation that should be delivered to the invoice(s) for the customer and ensure that the each cost item included in customer bill invoice(s) can correspond to a correct account through which customer will pay for the cost item. AM

------Discounts, charges, taxation etc are items in the invoice.

Ref[11] Apttus Billing Management August 2015 page 56 - 60

Pricing & Charges – page 59 – total fee amount

Discounts - page 59 - total discounts

Taxation = page 59 - total tax

Individual line items will be listed in a separate document the invoice Field "Batch Billing Job" allows this to be accessed. Equally individual charges etc can also be identified and linked to the invoice

The base data used to populate the invoice is taken from the appropriate sources within the Apttus system, contracts, orders etc

For example: Customer specific detail – pricing, charging, discounts, tax etc are determined at the contract negotiation stage of the quote-to cash process and this information is subsequently made available to the Billing processes.



Any associated rebates are calculated and applied by the Rebate Management sub processes

Apttus Contract Management process



Ref[1] Configuration & Pricing (CPQ) User Guide

Discounts, charges and specific pricing details are agreed / captured in the Configuration & pricing process.

Page 21 Reprice recalculates any manual pricing adjustments due to discounts etc

Page 21 Edit Price agreement allows the addition and setting of prices that are associated with the contract These edits can be made at any time during the lifetime of the contract so if, for example additional discounts are available, the contract will be amended and the invoice changed accordingly

Ref [11] Apttus Billing Management August 2015

Page 34 Has the capability to Define Account Information like

- Billing preference
- Billing date
- Payment terms
- Tax status (exempt etc)



For changes that happen during the lifetime of the contract or a bill-run time,

These types of changes are referred to as "in-flight"

These changes are captured in the Order Modification step of the Order Management process as shown below:

Apttus Order Management



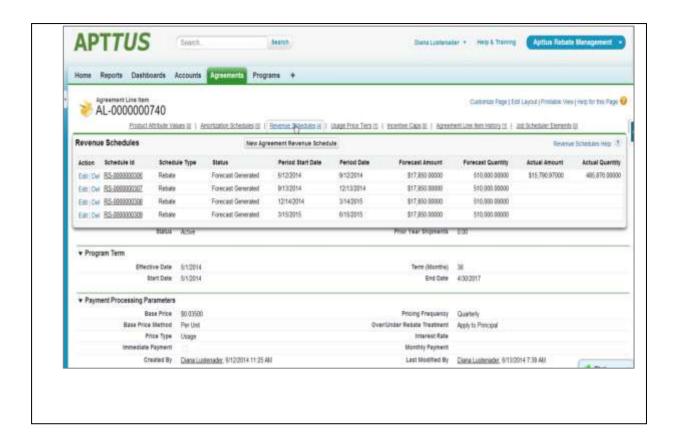
APTTUS Confidential APTTUS

Rebates are handled by the Rebate management functionality **Ref[7] Apttus Rebate Management Data Sheet**

An example of a rebate report is shown below. Rebate terms and conditions are integrated with the customer contract and are automatically applied

Ref [13] Billing Screenshots





4.3.1.3 L4: Apply Agreed Customer Bill Adjustment (1.1.1.10.1.3) - Mapping Details

Process Identifier: 1.1.1.10.1.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS Apply Agreed Customer Bill Adjustment (1.1.1.10.1.3) Mandatory The purpose of the Apply Agreed Customer Bill Adjustment process is to ensure that any adjustments which have been agreed between customer and Service Provider are included in the customer bill invoice. A



This is associated with the same part of the Quote-to-Cash solution that satisfies the previous Level 4 activity - Apply Pricing, Discounting, Adjustments & Rebates to Customer Account (1.1.1.10.1.2)

Customer specific detail – pricing, charging, discounts, tax etc are determined at the contract negotiation stage of the quote-to cash process and this information is subsequently made available to the Billing processes.

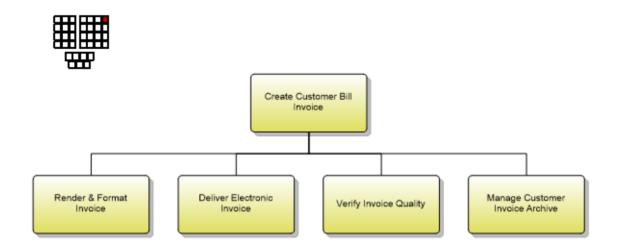
Ref [1] Apttus Configuration & pricing (CPQ) User Guide

Discounts, charges and specific pricing details are agreed / captured in the Configuration & pricing process.

Page 21 *Edit Price agreement* allows the addition and setting of prices that are associated with the contract



4.3.2 L3: Create Customer Bill Invoice (1.1.1.10.2)



Process Identifier: 1.1.1.10.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Production of a timely and accurate invoice in accordance with the specific billing cycles and reflective of the final charges for services, together with any adjustments, delivered to the customer by the Service Provider and respective trading partners.

Extended Description

The primary purpose of the Create Customer Bill Invoice process is the production of a timely and accurate invoice in accordance with the specific billing cycles and reflective of the final charges for services, together with any adjustments, delivered to the customer by the Service Provider and respective trading partners.

This process contains the invoicing components of the Service Provider's business. This includes the rendering/formatting of an invoice, the delivery of an electronic copy of an invoice to customers and the processes that verify invoice quality prior to distribution to the customer in electronic form, or to the process responsible for physical invoice production and distribution. The flow of this process can be viewed as an extension of the company's e-business strategy. In this case, the Service Provider would render an invoice electronically, via the Internet for example. Furthermore, this process provides specifications for the formatting of invoices in different ways and to achieve different publishing possibilities, and supports the creation of different invoice formats for different publication media. The process is further responsible for splitting and re-



arranging invoices for customers (particularly customers with complex account structures) according to agreements made with these customers.

Additionally these processes store the customer invoice for a period of time to address regulation and/or internal requirements, during which they can be accessed to support any customer or regulator agency inquiries on bill invoices.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.3.2.1 L4: Render & Format Invoice (1.1.1.10.2.1) - Mapping Details

Process Identifier: 1.1.1.10.2.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

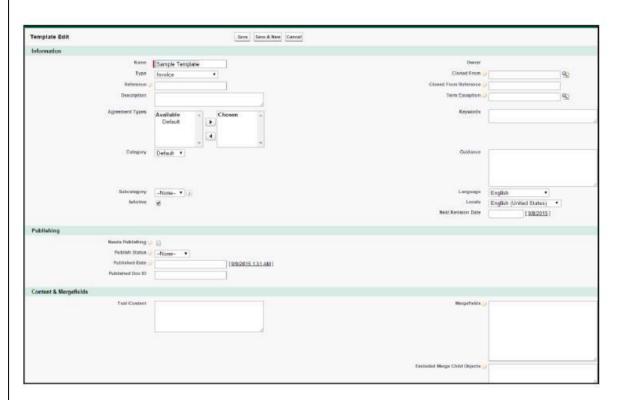


The billing processes are closely integrated with the order management processes such that modifications to the order and or contract are reflected in the bill/invoice

Ref [11] Apttus Billing Management August 2015

The Apttus solution can create and store billing templates that satisfies the "formatting of invoices in different ways". These templates can subsequently be used to create invoices in different formats according to requirements

Page 27 Shows a screenshot at the beginning of the template creation process (below)

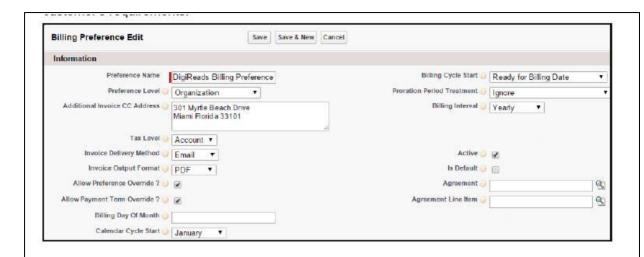


Pages 27 – 29 Outline the steps involved in the creation of a user template

The screenshot below identifies some of the options available to the customer. One of which is Invoice Output Format.

On Page 39, these options are identified as PDF, Doc. DOCX and RFP





Page 56 Creating an Invoice

Combining the invoice, invoice item, usage, and account information data together and putting it in a format that can be delivered to a customer is called Invoice Presentation. Invoice Presentation is independent of Billing and it is possible to generate an invoice and invoice items and use another system to define presentation.

The Apttus system has the option of issuing an invoice / bill where the presentation is created by the system, by creating and using templates, or exporting the information to an external system.

Page 57 invoices can be created manually or automatically and configured to be delivered in several formats and over different platforms. The keystrokes are listed in pages 57 to 60.

The process is further responsible for splitting and re-arranging invoices for customers (particularly customers with complex account structures) according to agreements made with these customers.

An example of how this is done is shown below

AM



Creating Account location filters for an Invoice Run

Now, you can define filters for an Invoice Run based on the Account or Account Location object and view the specific filter applied on the Invoice Run detail page.

You can select up to 18 fields from the Account or Account Location object, apply an operator, and enter a specific value for each field to define your filter criteria.

For example, you are an executive in the Billing department of a software company and want to perform an invoice run to generate invoices for only those customers whose Account Location is defined as San Francisco.



On the Invoice Run detail page, you can see the filter criteria that you applied.



Generating separate invoices by payment terms and account locations

Now, you can generate separate invoices for a single account for purchases that have different payment terms. You can also generate separate invoices for different account locations.

For example, you are an executive in the billing department of an internet service provider. You must generate invoices for two customer accounts.

Your first customer has an ongoing subscription with a cap on data usage and has purchased additional data. Following your business requirement, you have set different payment terms for standard subscriptions and additional data usage. Though the billing dates for both the purchases are the same, you can generate separate invoices for each item.

You only have to perform an Invoice run and the Apttus Billing Management application checks the billing schedule and automatically generates separate invoices for every purchase with a different payment term.

Your second customer is a restaurant chain with branches in three cities. All three locations have the same subscription plan and billing schedule. You can generate a separate invoice for each Account Location.





4.3.2.2 L4: Deliver Electronic Invoice (1.1.1.10.2.2) – Mapping Details

Process Identifier: 1.1.1.10.2.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Deliver Electronic Invoice (1.1.1.10.2.2)

Mandatory

The purpose of Deliver Electronic Invoice process is to deliver the electronic copy of an invoice to customers AM

Ref [11] Apttus Billing Management August 2015

Page 37 - 39 Defining Billing Preference

The screenshot below identifies some of the options available to the customer. One of which is Invoice Output Format.

On Page 39, these options are identified as PDF, Doc. DOCX and RFP. The information can be delivered to 3rd parties through an API





4.3.2.3 L4: Verify Invoice Quality (1.1.1.10.2.3) – Mapping Details

Process Identifier: 1.1.1.10.2.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Verify Invoice Quality (1.1.1.10.2.3)

Mandatory

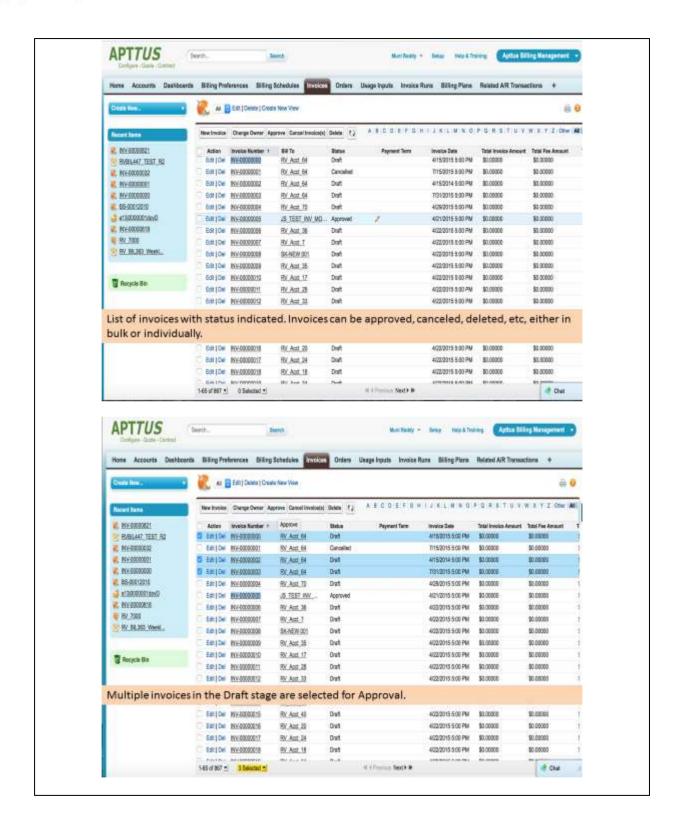
The purpose of Verify Invoice Quality process is to verify invoice quality prior to distribution to the customer in electronic form, or to the process responsible for physical invoice production and distribution. Verifying invoice quality is either a manual operation or an automatic behaviour. The process is responsible for ensuring the invoice format and content can meet customer requirements. When verifying invoice quality is failed, the process is also responsible for sending the invoice back to another process to reprocess. AM

Invoices are created in draft mode and then must be approved, the invoice page in billing has an approve or cancel single or bulk options, only cancelled draft invoiced can be deleted.

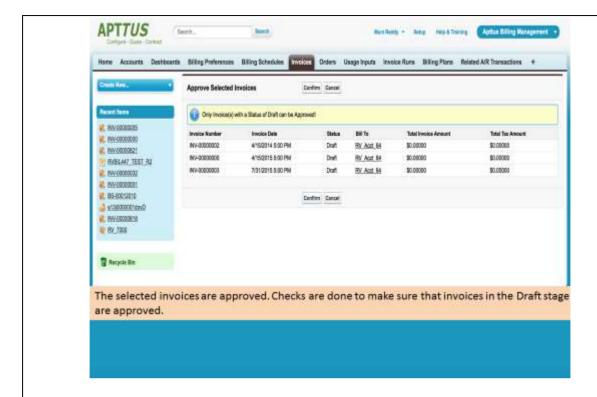
The screenshots below illustrate this:

Ref [13] Billing Screenshots







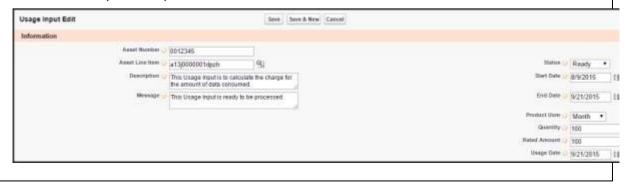


Another example is shown below Ref[11] Apttus Billing Management August 2015

Page 51

For example, you are an executive in the Billing department of an Internet Service Provider. You must capture and process the amount of data your customers have used so you can calculate the amount that you will generate an invoice for.

With a scheduled batch job, Apttus Billing Management processes the Usage Input to rate the usage, and automatically updates the rated amount to the associated Billing Schedule. When the usage record you process has incomplete or incorrect information, Apttus Billing Management displays an Error status after you attempt to rate it.

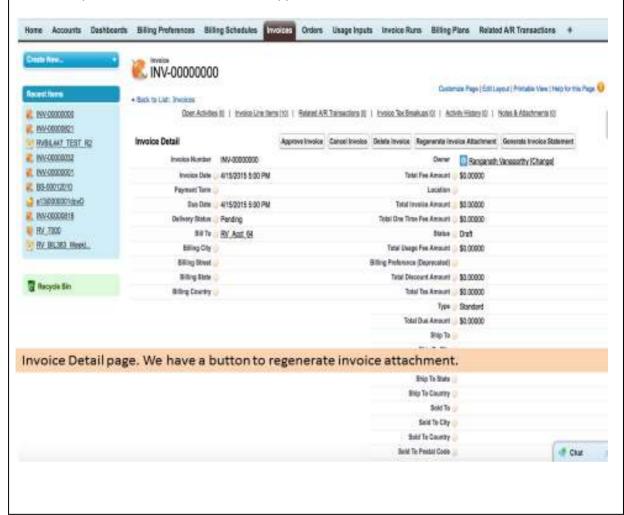




The invoice form, structure and content together with other details like invoice generation date, invoice issue date, payment terms are agreed with the customer. A typical list is shown here.

Ref[11] Apttus Billing Management August 2015 page 26

A visual inspection allows an invoice to be Approved, cancelled, deleted etc as shown below





4.3.2.4 L4: Manage Customer Invoice Archive (1.1.1.10.2.4) – Mapping Details

Process Identifier: 1.1.1.10.2.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Customer Invoice Archive (1.1.1.10.2.4)

Mandatory

The purpose of Management Customer Invoice Archive process is to store the customer invoice for a period of time, to perform regulation and/or serve internal requirements, during which they can be accessed to support any customer or regulator agency inquiries on bill invoices, and the process is further responsible for archiving the customer invoices to historical customer invoice after a period of time according to Service Provider's management requirements. Furthermore the process is responsible for managing and maintaining archiving cycle. AM

All approved invoices are stored in system and cannot be deleted except by an administrator.





Ref [11] Apttus Billing Management August 2015

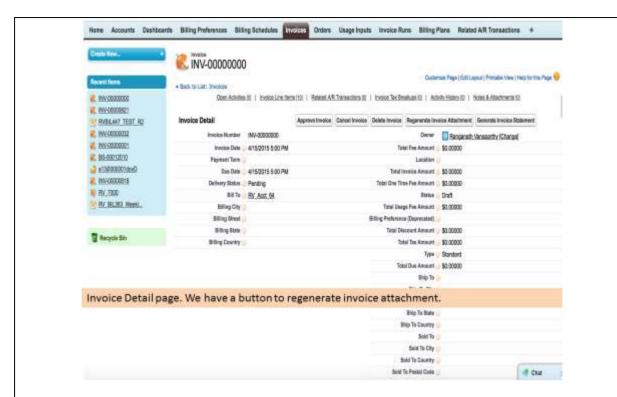
Page 77 The Billing System can run reports based on the invoices over extended periods "For example, year over year comparisons are a commonly run report"

To enable this, the invoice information is automatically archived within the system so that it can be examined for any number of purposes including those listed.

Invoices in the system can only be deleted by an administrator.

Invoice detail, attachments or the statement, can be regenerated for any given reason by clicking one of the buttons shown alongside "Invoice Detail" in the screenshot below.

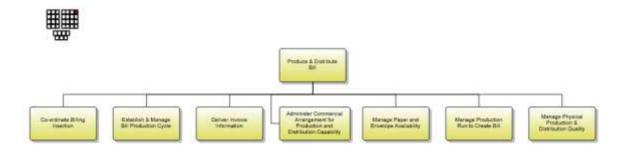




The archive cycle will vary according to the needs of the service provider, its customers and the legal and commercial terms in place



4.3.3 L3: Produce & Distribute Bill (1.1.1.10.3)



Process Identifier: 1.1.1.10.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Physical production and distribution of bills to customers in accordance with the specified billing cycle.

Extended Description

The purpose of the Produce & Distribute Customer Bill Invoice process is the physical production and distribution of bills to customers in accordance with the specified billing cycle. This process is responsible for all activities associated with ensuring a physical bill is delivered to customers.

The responsibilities of the process include, but are not limited to:

- Establishing and managing the physical bill production cycle;
- Establishing the requirements for, and managing the agreed commercial arrangements with, appropriate outsourced suppliers of the production and distribution capabilities;
- Delivery of invoice information to the physical production processes;
- Coordinating with promotional processes for any billing insertions to be included with the bill;
- If internal processes are used, managing availability of paper and envelope volumes to meet the needs of the physical production process;
- If internal production facilities are used, managing the production runs to create the bills
- Quality management of the physical production and distribution processes.

Note that in the above processes for establishing arrangements with outsourced suppliers that the Supply Chain Capability Delivery processes are used as the vehicle for creating the commercial agreements.

Explanatory

Reserved for future use.



Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.3.3.1 L4: Co-ordinate Billing Insertion (1.1.1.10.3.1) – Mapping Details

Process Identifier: 1.1.1.10.3.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Co-ordinate Billing Insertion (1.1.1.10.3.1)

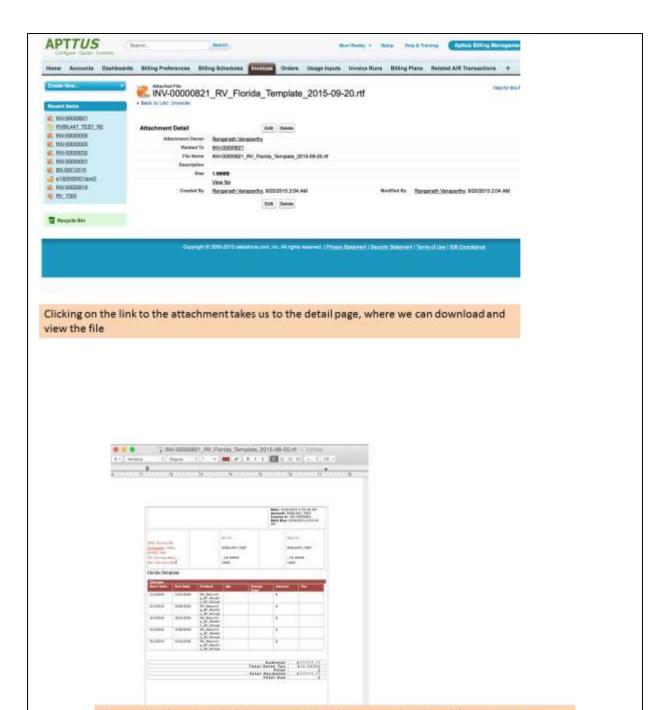
Mandatory

This process is responsible for determining the content of insertion and the position of insertion in invoice. The insertion can be the service information provided by Service Provider, advertisements and recommendation of billing for customers.

This process is also responsible for ensuring the billing insertion attracting the customer interests and not leading to customer complaints. AM

Ref [13] Billing Screenshots





The attached file. This is built based on the templates set via X-Author. If, for instance, the rectangular portion at the top-left needs to have an advertisement banner, it can be setup to do that in the X-Author template.

This process is also responsible for ensuring the billing insertion attracting the customer interests and not leading to customer complaints



The format and content of an invoice can be agreed with the customer, therefore preventing any unwanted advertisements etc.

In the event that the customer changes his/her mind after the template has been agreed, it can easily be changed by modifying / overriding the template

Agreed content types, advertisements for example or information relevant to the customer, can be inserted into the invoice by having an area set in the template for this purpose. Just like any other information in the invoice, this variable information. These are known as Dynamic Segments and the process for their insertion can be found here: **Ref[12] X-Author Contracts User Guide page 90**

Ref [11] Apttus Billing Management August 2015

Pages12 / 13 Explains how this is done
Page 25 Shows an example of a customised invoice.

The invoice form, structure and content together with other details like invoice generation date, invoice issue date, payment terms are agreed with the customer. A typical list is shown here.

Ref[11] Apttus Billing Management August 2015 page 26



4.3.3.2 L4: Establish & Manage Bill production Cycle (1.1.1.10.3.2) – Mapping Details

Process Identifier: 1.1.1.10.3.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Establish & Manage Bill production Cycle (1.1.1.10.3.2)

Mandatory

This process is responsible for identifying the deadline of the customer requiring physical bill productions, time cycle for producing and distributing to ensure that the physical bill production can be received by the customer on time. This process is responsible for ensuring that physical bills are produced in time to be received by customers on time. This process takes production and distribution cycle timing into account when establishing bill production schedules. AM

The Apttus system can generate a bill for any time the customer wants. This would be specified in the contract. As the billing and contract management systems are closely and automatically linked, then this contract information is passed to the billing system. Subsequent amendments to the contract would also be passed automatically

Ref [11] Apttus Billing Management August 2015

Page 46 Billing Schedules shows how the various dates applicable to a customer order,

In particular, a Billing Plan (page 48) is associated with each order



4.3.3.3 L4: Deliver Invoice Information (1.1.1.10.3.3) – Mapping Details

Process Identifier: 1.1.1.10.3.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Deliver Invoice Information (1.1.1.10.3.3)

Mandatory

The purpose of the Deliver Invoice Information process is to ensure that the invoice information can be delivered to invoice physical production process.

This process is also responsible for monitoring the status of information delivery channel and ensuring the channel availability. AM

The system does not generate paper invoices. If this is required, then the invoice information can be automatically passed to the 3rd party printer.

The PDF/ Word, rtf, doc or docx invoice attachment can be sent manually or through an API.

This is the same information as used to create an electronic invoice.

Ref[11] Apttus Billing Management August 2015

Page 39 Identifies the formats

Page 61 Confirms that APIs are used

Page 56 – 60 Describes the process for creating an invoice



4.3.3.4 L4: Administer Commercial Arrangement for Production and Distribution Capability (1.1.1.10.3.4) – Mapping Details

Process Identifier: 1.1.1.10.3.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Administer Commercial Arrangement for Production and Distribution Capability (1.1.1.10.3.4)

Mandatory

The purpose of Administer Commercial Arrangement for Production and Distribution Capability process is to establish the requirements for, and manage the agreed commercial arrangements with, appropriate outsourced suppliers of the production and distribution capabilities.

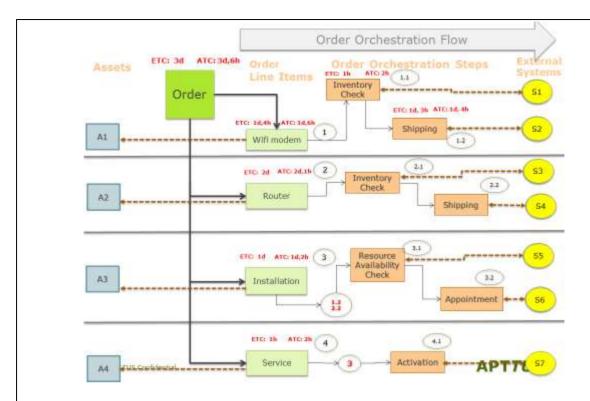
This process is responsible for output of the production and distribution requirements to outsourced supplier and amending the requirements based on the negotiation between Service Provider and outsourced supplier.

This process is also responsible for drafting commercial contract terms, including the responsibilities, payment condition, payment type, SLA, and signing the commercial contract with outsource supplier. AM

This requirement is satisfied by the Apttus Contract Management system which created the agreed contract and the Order Management processes which Orchestrate the various actions required to meet the customer's agreed requirement. SLAs, payment terms etc are associated with the product being bought from the 3rd party supplier. Delivery of the product (including SLAs etc) is the responsibility of the 3rd party supplier but this is managed from the Service Provider's point of view by the Order Handling processes where each subtask is decomposed and an orchestration plan for each is created.

An example flow is shown below





Ref [6] Order Management PowerPoint

A contract is negotiated and agreed in a similar way to that between the supplier and the customer.

Compliance with the contract terms, obligations etc are monitored by this process.





Ref [17] Apttus Order Management user Guide

Excerpt

Order Break down	Decompose the order into its constituent parts
Order line item consolidation	Consolidate the order based on configurable parameter like geography, product type etc
External System Interaction	 Send Order line item information to external fulfillment systems Receive information from External fulfillment systems and update order line item and line item steps Perform inventory validation and prioritize customers as is applicable Perform resource validation and prioritize customers as is applicable
Status and Field Updates	Update order line, asset line and order status based on fulfillment status updates from external system
Orchestration Plan	Create an action plan all the way to the elementary tasks



4.3.3.5 L4: Manage Paper and Envelope Availability (1.1.1.10.3.5) – Mapping Details

Process Identifier: 1.1.1.10.3.5

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Paper and Envelope Availability (1.1.1.10.3.5)

Mandatory

The purpose of the Manage Paper and Envelope Availability process is to ensure the quantities of papers and envelopes are enough before starting invoice physical production. This process is responsible for ensuring the quality of paper and envelopes that fit the requirements from subsequent invoice physical production processes. For example the volume of envelope is suitable. If the requirements don't fit, this process is responsible for detecting the problems and reporting to other processes if required.

The Apttus solution does not support this activity



4.3.3.6 L4: Manage production Run to Create bill (1.1.1.10.3.6) - Mapping Details

Process Identifier: 1.1.1.10.3.6

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Production Run to Create bill (1.1.1.10.3.6)

Mandatory

The purpose of Manage Production Run to Create Bill process is to manage the production runs to create the bills, if internal production facilities are used.

This process is responsible for producing the physical bill based on the invoice information and, if necessary, wrapping bills into envelopes.

The process also is responsible for monitoring that the produced bills are ready to be distributed. AM

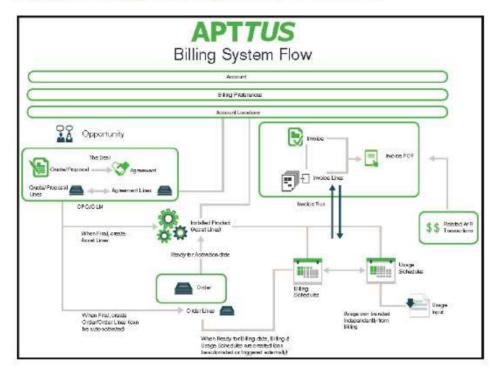
The Apttus system does not in itself specifically manage the wrapping of bills into envelopes. However the higher level bill production and distribution management process would manage this activity.

Ref[11] Apttus Billing Management August 2015

Page 31 The Apttus billing System Flow is shown below



Apttus Billing Management Workflow



Apttus Billing Management functions use several Objects and fields that you must define before you can generate an invoice for your customers.

When ready for billing data, the Billing & Usage schedules (bottom centre of the diagram) are created either automatically or manually.

Managing the distribution schedule is handled by the *Billing Schedules* facility of Billing management. **Ref [11] Apttus Billing Management August 2015 page 46 refers** "*You can use the billing Schedules function to track all billing information related to an order*". This includes bill /invoice production



4.3.3.7 L4: Manage Physical Production & Distribution Quality (1.1.1.10.3.7) – Mapping Details

Process Identifier: 1.1.1.10.3.7

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Physical production & Distribution Quality (1.1.1.10.3.7)

Mandatory

The purpose of Manage Physical Production & Distribution Quality process is to manage quality of the physical production and distribution processes, if internal production facilities are used. This process is responsible for monitoring the whole physical production and distribution running, check the quality and validity of production and observing the distribution time cycle. This process is responsible for ensuring that the contents of production, including billing parts and insertion parts, are satisfied by customers and the productions can be delivered to customers' address on time and accurately.

This process is also responsible for monitoring the efficiency of production process to ensure that the production process can timely produce a large number of productions to avoid distribution delay. AM

This is achieved through the same critical path management technique that the Order Management uses to ensure that the customers' orders are delivered as promised. The system would be set up with a workflow that reflected the policy of the Service Provider with respect to critical events

So the base information from the invoice production of the Quote-to-Cash process would have to be managed. For example, – invoice production availability would need to be assessed at the contract / order management stages too ensure that invoices can be produced within the capacity of the system, and if not, then a different schedule would need to be put in place.

I've marked this as partially conformant as it's not an advertised feature but the system could be set up to do this,

Invoices can be individually selected and examined and then approved / rejected



4.3.4 Supporting Evidence References (Works Cited)

[Ref 1]	Apttus Configuration & pricing (CPQ) User Guide	
[Ref 2]	Apttus Contract Management User Guide	
[Ref 6]	Apttus Order Management PowerPoint presentation	
[Ref 7]	Apttus Rebate Management Data Sheet	
[Ref 8]	Apttus Billing Management User Guide	
[Ref 9]	Apttus Billing Management Data Sheet	
[Ref 10]	Apttus Revenue Management Data Sheet	
[Ref 11]	Apttus Billing Management August 2015	
[Ref 12]	Apttus X-Author Contracts User Guide	
[Ref13}	Billing Screenshots	
[Ref17]	Apttus Order Management User Guide	



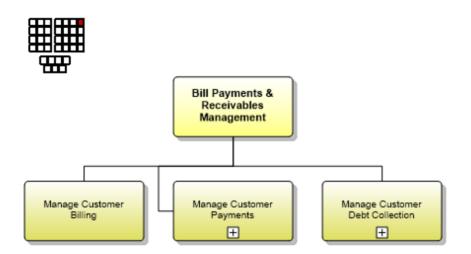
4.3.5 Summary of Level 3 & Level 4 Scores

Table 4-3 Bill Invoice Management (1.1.1.10) – Conformance Scores

Operations: Level 1: 1.1.1 - Customer Relationship Management		
Level 2: 1.1.1.10 - Bill Invoice Management	Conformance Scores	
1.1.1.10.1 - Apply Pricing, Discounting, Adjustments &	5	
Rebates		
1.1.1.10.1.1 - Obtain Billing Events	100%	
1.1.1.10.1.2 - Apply Pricing, Discounting, Adjustments &	100%	
Rebates to Customer Account		
1.1.1.10.1.3 - Apply Agreed Customer Bill Adjustment	100%	
1.1.1.10.2 - Create Customer Bill Invoice	5	
1.1.1.10.2.1 - Render & Format Invoice	100%	
1.1.1.10.2.2 - Deliver Electronic Invoice	100%	
1.1.1.10.2.3 - Verify Invoice Quality	100%	
1.1.1.10.2.4 - Manage Customer Invoice Archive	100%	
1.1.1.10.3 - Produce & Distribute Bill	4.6	
1.1.1.10.3.1 - Co-ordinate Billing Insertion	100%	
1.1.1.10.3.2 - Establish & Manage Bill Production Cycle	100%	
1.1.1.10.3.3 - Deliver Invoice Information	100%	
1.1.1.10.3.4 - Administer Commercial Arrangement for	100%	
Production and Distribution Capability		
1.1.1.10.3.5 - Manage Paper and Envelope Availability	0%	
1.1.1.10.3.6 - Manage Production Run to Create Bill	100%	
1.1.1.10.3.7 - Manage Physical Production & Distribution	50%	
Quality		



4.4 L2: Bill Payments & Receivables Management (1.1.1.11)



Process Identifier: 1.1.1.11

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Ensure that enterprise revenue is collected through pre-established collection channels and put in place procedures to recover past due payments.

Extended Description

The purpose of the Bill Payments & Receivables Management processes is to ensure that enterprise revenue is collected through pre-established collection channels and put in place procedures to recover past due payments. These processes are responsible for managing customer's billing account, processing their payments, performing payment collections and monitoring the status of the account balance.

These processes are responsible for, but not limited to:

- Establishment and management of customer payment processes and channels;
- Establishment and management of debt collection processes
- Establishment and management of third party arrangements to support collection and recovery of past due payments.



Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.



4.4.1 L3: Manage Customer Billing (1.1.1.11.1)

Note: as no level 4 activities are available, conformance mapping has been done against the brief and extended level 3

Process Identifier: 1.1.1.11.1

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Ensure effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle.

Extended Description

The primary purpose of this process pertains to effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle. This process focuses on managing changes to the customer's billing account (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

4.4.1.1 L3: Manage Customer Billing (1.1.1.11.1) - Mapping Details

LEVEL 3 PROCESS MAPPING DETAILS

Manage Customer Billing (1.1.1.11.1)

No level 4s so level 3 brief & extended descriptions used

Brief Description

Ensure effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle.

Extended Description

The primary purpose of this process pertains to effective management of the customer's billing account as it relates to the products purchased and consumed throughout the appropriate billing cycle.



This process focuses on managing changes to the customer's billing account (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

Note: In the Apttus system the "amount due" is referred to as the "Arrangement fee". A single agreement may have several arrangement fees. Details of how these fees are expected (bill payments schedule) is referred to as a "Revenue Schedule"

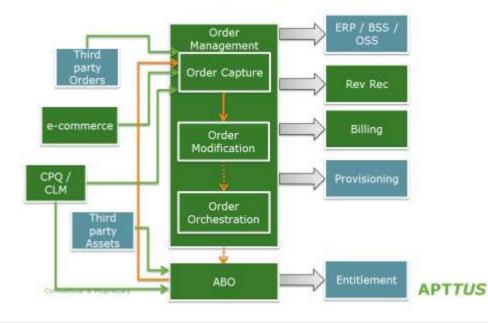
Ref [15] Apttus Revenue Recognition may 2015 User Guide page 15 – 16 refers

New orders whilst the agreement is in place, are captured by the Apttus Order Management processes. These orders are orchestrated and delivered.

Ref [17] Apttus Order Management User Guide Page 5

Note: Apttus have created an Order Management user guide that includes the PowerPoint flows and the screenshots. The original source was a customer video demonstration that they broke off at the appropriate times to illustrate what was happening before resuming the demo. The base document was / is what they handed out after the demo. They have now removed the commercially sensitive material to create the User Guide.

Solution Footprint (Cont.)



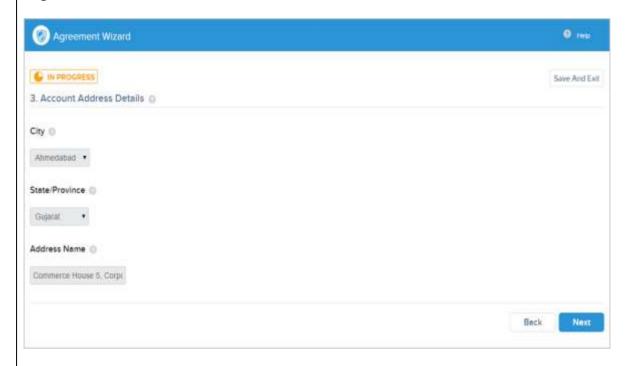


When an order has been fulfilled, the invoice is generated in the normal fashion as described in "Bill Invoice Management"

The initial agreement will hold details of the customer's billing address etc

Ref[2] Apttus Contract Management User Guide

Page 13



Page 29

During the term of the agreement you may need to modify the contract. For example, the language or terms of the contract. The Amend action is used for this functionality. The Amend action creates a new version of the agreement record. The new, amended record shares the same base agreement number as the original with the decimal point incremented by one. All the data from the original version is copied into the new version. The new version can then go through the same agreement process as described above. On execution of the amendment, the status category of the original version of the agreement is changed to Amended from In Effect.

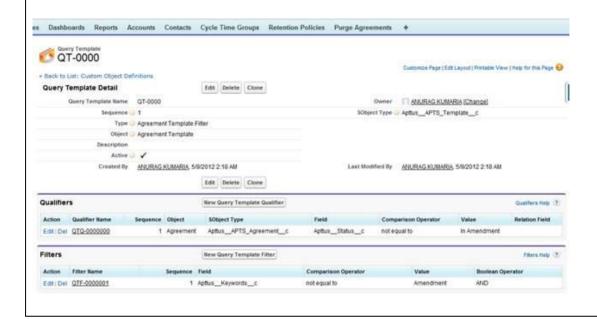
Ref[15] Apttus Contract Management Admin Guide

Page 173 This is achieved by changing the status of the contract to "In Amendment"



Page 180 Amendments can be made by using a template created for this purpose to modify fields in the agreement.

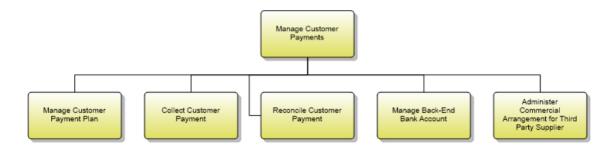
Page 83 Shows an example. Bottom right on the screenshot.





4.4.2 L3: Manage Customer Payments (1.1.1.11.2)





Process Identifier: 1.1.1.11.3

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Collect past due payments from the customer.

Extended Description

The purpose of the Manage Customer Debt Collection process is to collect past due payments from the customer. This process monitors the amount due from the customer, i.e. check whether the payments are made on time, and implements necessary activities and policies to recover amounts overdue.

The responsibilities of this process include, but are not limited to:

- Identifying invoices which are overdue for payment;
- Initiating and managing follow-up with customers having overdue amounts;
- Arranging and monitoring payment plans to allow customers to pay overdue amounts in installments;
- Initiating debt recovery activities in accordance with appropriate commercial practice and policies;
- Managing the aged customer debt portfolio;
- Establishing and managing customer debt profiles to assist in managing debt recovery and debt risk on a customer, product or customer group basis;
- Establishing and managing commercial arrangements with third parties for the recovery of aged



debt, and/or for the write-off and selling of parts of the debt portfolio to third parties

Note that these processes may initiate a direct enquiry to the customer and attempt to manage the initial recovery through the Bill Inquiry Handling processes. These processes use policies established by the Support Bill Payments & Receivable Management process to direct any escalation of the recovery processes being employed.

Note that where third party arrangements need to be put in place, these processes are responsible for establishing the requirements for, and managing any commercial arrangements agreed with, third party suppliers. The Supply Chain Capability Delivery process is used to deliver the commercial agreements.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.



4.4.2.1 L4: Manage Customer Payments Plan (1.1.1.11.2.1) – Mapping Details

Process Identifier: 1.1.1.11.2.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Customer Payments Plan (1.1.1.11.2.1)

Mandatory

The purpose of Manage Customer Payment Plan process is to establish new payment plans, modify or remove existing payment plans. AM

Payment plans are agreed and set up at the contract creation stage in the process.

Ref [14] Apttus Contract Management Admin Guide

Page 13

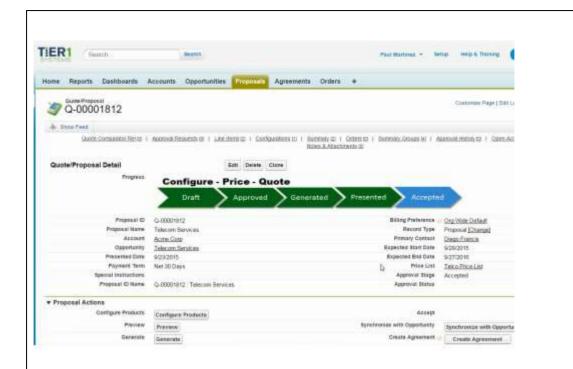
Contract Management Terms

- Term Start and End Dates
- Payment terms
- SLA terms

Ref[17] Order Management User Guide

Page 10



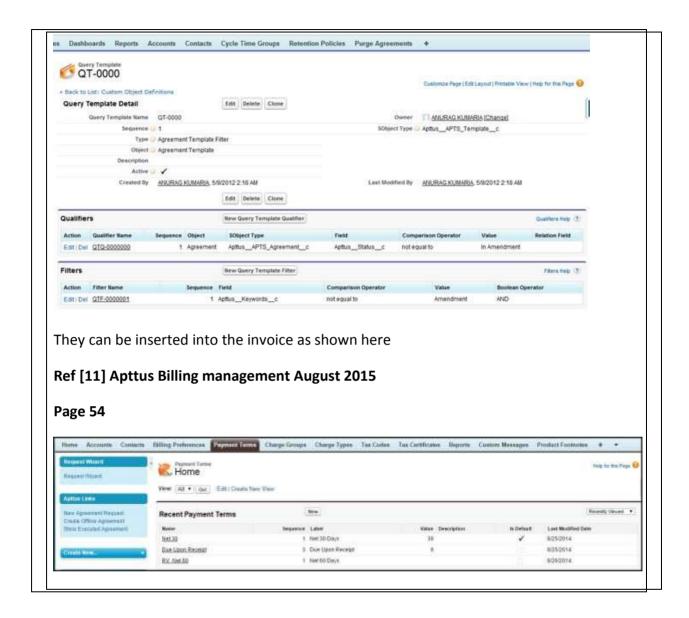


Future modifications to the agreed payment terms are made by using a template created for this purpose to modify fields in the agreement.

Ref[14 Apttus Contract Management Admin Guide

Page 83 Shows an example. Bottom right on the screenshot.







4.4.2.2 L4: Collect Customer payment (1.1.1.11.2.2) – Mapping Details

Process Identifier: 1.1.1.11.2.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Collect Customer Payment (1.1.1.11.2.2)

Mandatory

The purpose of Collect Customer Payment process is to collect the payments from the customer. To the extent that processing of any payments is undertaken internally, i.e. check processing, these processes are responsible for managing the operation and quality of the internal processing. AM

This activity is not supported "out of the box" rather payments are made by customers via electronic means to an associated system. See Manage Back-end Bank Account (1.1.1.11.2.4)

This associated system matches the payment with an invoice generated by the Apttus system.

A manual inspection and action either confirms or denies the match and the information is passed to accounts receivable for further processing.

Accounts receivable represents the total amount a customer owes your company in return for products or services they purchase.

When an invoice is created the Apttus Billing Management automatically creates the first Accounts Receivable transaction record to sync with and update the customers' ERP system starting balance of the invoice.



For example, you are an executive in the Billing department of a software company



and want to generate an invoice for a customer whose starting balance is \$2,349.00. When you generate an invoice for this customer, Apttus Billing Management automatically creates an Accounts Receivable transaction related to this invoice, and updates the integrated ERP system with the starting balance of \$2,349.00. With this feature, you can avoid manually updating records on multiple applications when you integrate them with Apttus Billing Management.

The steps involved in creating a transaction are documented in Ref[11] Apttus Billing Management August 2015 page 73

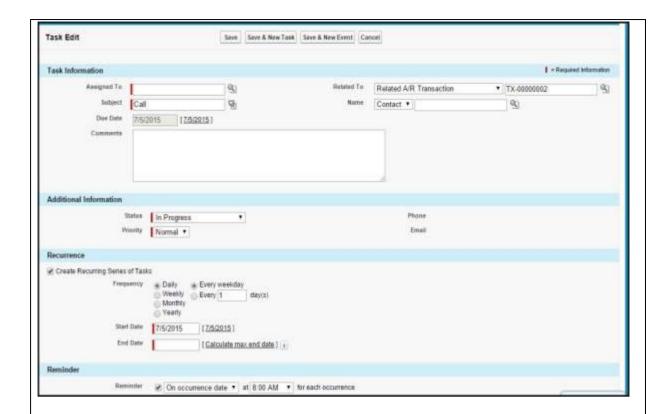
Transactions can be created to track, measure, and record incoming payments, credits, debits, and refunds.

Ref [11] Apttus Billing Management August 2015

Page 72 /73 Payments collection falls under the Accounts Receivables (A/R) part of Apttus Billing Management. When an invoice is created Apttus Billing Management Automatically creates an Accounts Receivable transaction

The screenshot below shows a typical transaction where a task – for example someone is assigned to make a chase-up call is created. Reminders to complete this task (make the chase-up call) can also be scheduled (bottom of the screen)





Ref[14] Apttus Contract Management Admin Guide

Page 100 The Apttus system makes no distinction between external and internal customers.

"Obligation management refers to email alerts and reminders that ensure internal and external obligations in connection to your agreements are properly fulfilled."



4.4.2.3 L4: Reconcile Customer Payments (1.1.1.11.2.3) – Mapping Details

Process Identifier: 1.1.1.11.2.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

Additionally these processes inform the Financial Management on all those payments for updating the ledger.

LEVEL 4 PROCESS MAPPING DETAILS

Reconcile Customer Payments (1.1.1.11.2.3)

Mandatory

The purpose of Reconcile Customer Payment process is to reconcile the payments to the invoices. This process is meant to match these payments with the services/invoices delivered to this customer.

Where payments do not match invoices, this process is responsible for informing the Manage Customer Debt Collection processes of any underpayments, and the Bill Inquiry Handling processes for any over-payments.

These processes are responsible for reconciling the money received into the bank accounts against the payments expected in the invoices. AM

Ref [11] Apttus Billing Management August 2015

Page 13

"An Invoice Template includes the current outstanding balance owed by your customer and that amount includes all of the A/R transactions related to that invoice."

Page 32

You can use the **Related A/R transactions** to track, measure, and record incoming payments, credits, debits, and refunds

These transactions are used to maintain the customer's balance. In the Apttus system total balances are used to manage accounts receivable.

Ref [15] Apttus Revenue Recognition may 2015 User Guide



Pages 74 /75 Reconciliation process is the primary method used to verify the accuracy of an account's balance.

Some of the methods that can be used to reconcile accounts are.

- Reconcile beginning to ending balance
- Account details

An example of a typical report is shown on pages 74 / 75. It shows the invoices sent and payments received

In the event of over / under payments the report will flag a mis-match. The report can then be passed to the appropriate department where Debt Collection, Bill Enquiry or Rebate management processes can be initiated and the appropriate action taken.

Again this workflow is not specifically presented out of the box, but has to be set up in the system by the Service Provider. So they are part of the manual system set-up /configuration.

This is controlled by the creation of a workflow based on the Service Provider's policy

These workflows are not presented "out of the box" rather they are manually customized according to the service Provider's policy

Ref[14] Apttus Contract Management Admin Guide

Page 126 Policy can be documented and applied through the creation of a Workflow Rule. The process to create such a rule is documented in page 126. Typically such a rule could include actions such as tasks, alerts and updates when policies or situations are changed.

The process can be either automatic or manual



4.4.2.4 L4: Manage Back-end Bank Account (1.1.1.11.2.4) – Mapping Details

Process Identifier: 1.1.1.11.2.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Manage Back-end Bank Account (1.1.1.11.2.4)

Mandatory

The purpose of Manage Back-End Bank Account process is to manage back-end bank accounts for receipt of the customer payments and for the transfer of funds collected by third parties.

These processes are responsible for managing payment commercial agreement agreed with banks and the payment interfaces for collecting the customer payments. AM

The Apttus system does not do this directly. Rather it **manages** the back end account process via interfaces with payment gateways such as CyberSource <u>www.cybersource.com</u> to process payments using payment tokenization (Apttus is PCI3 compliant). https://en.wikipedia.org/wiki/Tokenization %28data security%29

Ref: [19] Payment Card Industry Data Security Standard Report on Compliance https://en.wikipedia.org/wiki/Payment Card Industry Data Security Standard refers to Apttus's ability to interact with one such example – the Credit Card industry

Below are screenshots from Apttus conformance assessment with the gateway to credit card payments as assessed by **Truvantis** http://www.truvantis.com/ a compliance assessment organisation

Page 10

Any entities that the assessed entity connects to for payment transmission or processing, including processor relationships.

Apttus only supports Cybersource as a compatible payment gateway. Saleforce.com is the hosting provider for Apttus solution. Customer (Merchant) must have a Salesforce account and deploy the Apttus products that will then reference an IFRAME from Cybersource.

Page 11



3.1 Assessor's validation of defined cardholder data environment and scope accuracy

Document how the assessor validated the accuracy of the defined CDE/PCI DSS scope for the assessment, including:

As noted in PCI DSS, v3.1 – "At least annually and prior to the annual assessment, the assessed entity should confirm the accuracy of their PCI DSS scope by identifying all locations and flows of cardholder data, and identify all systems that are connected to or if compromised could impact the CDE (e.g. authentication servers) to ensure they are included in the PCI DSS scope."

Note – additional reporting has been added below to emphasize systems that are connected to or if compromised could impact the CDE

 Describe the methods or processes (for example, tools, observations, feedback, scans, data flow analysis) used to identify and document all existences of cardholder data (as executed by the assessor, assessed entity or a combination): This validation and report is limited to the Apttus products

- Configure Price Quote (CPQ) product version 8.829.14
- E-Commerce product version 8.49
- Billing product version 3.60

These software products are deployed by their customers (merchants) on the Salesforce platform (a service provider to the merchants). Apttus has no control over or responsibility for its use. They therefore have no CDE for this validation by definition.

- Describe the methods or processes (for example, tools, observations, feedback, scans, data flow analysis) used to verify that no cardholder data exists outside of the defined CDE (as executed by the assessor, assessed entity or a combination):
- N/A Excluded by the scope of the assessment.
- Describe how the results of the methods/processes were evaluated by the assessor to verify that the PCI DSS scope of review is appropriate:

Interview with key staff, review of source code, review of contracttemplates. This analysis showed that the merchant and Cvbersource handle the CHD, and Apttus' sole responsibility is to write code that delivers a web link to the Cvbersource IFRAME.

Describe how the results of the methods/processes were documented (for

Ref [20] Apttus API August 2015 Reference Guide Page 8

Shows a list of the API standards supported (although payment is not specifically mentioned)

Apttus API August 2015 Reference Guide / Overview

API Standards and Development Platforms

« PREVIOUS

Apttus APIs are based on Salesforce APIs and use the same standards and platforms.

Standards

Name	Reference
Simple Object Access Protocol (SOAP) 1.1	http://www.w3.org/TR/2000/NOTE-SOAP-20000508
Web Service Description Language (WDSL) 1.1	http://www.w3.org/TR/2001/NOTE-wsdl-20010315
WS-I Basic Profile 1.1	http://www.ws-i.org/Profiles/BasicProfile-1.1-2004-08-24.html



4.4.2.5 L4: Administer Commercial Arrangement for Third Party Supplier (1.1.1.11.2.5) – Mapping Details

Process Identifier: 1.1.1.11.2.5

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Administer Commercial Arrangement for Third Party Supplier (1.1.1.11.2.5)

Mandatory

The purpose of Administer Commercial Arrangement for Third Party Supplier process is to establish the requirements for, and manage any commercial arrangements agreed with, third party suppliers of payment services.

After commercial arrangements are agreed, this process is responsible for monitor the execution of the commercial arrangements. AM

Any 3rd party suppliers are identified at the Order Management stage in the Quote-to-Cash process and their role factored into the Order Orchestration flow via the API. **Ref [17] Order Management User Guide page 6**

Note: Apttus have created an Order Management user guide that includes the PowerPoint flows and the screenshots. The original source was a customer video demonstration that they broke off at the appropriate times to illustrate what was happening before resuming the demo. The base document was / is what they handed out after the demo. They have now removed the commercially sensitive material to create the User Guide.

*Auto recalculate the orchestration plan and the orbical path when a change order event occurs



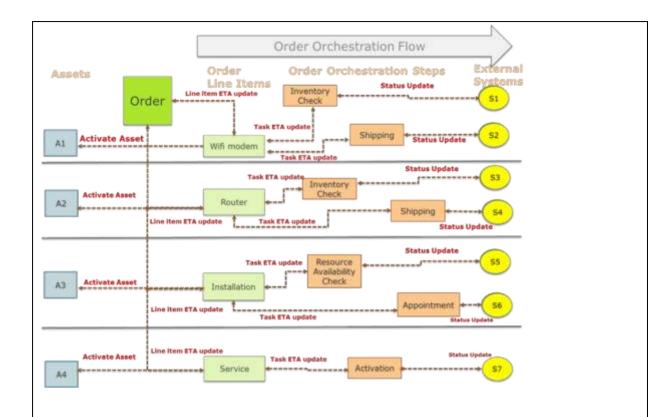
Inventory validation

*Perform any contract change activities as is needed.

•Integrate the carrier's shipping status into the front end Order status display.

Example flow (not specific to the requirement, but included to illustrate a similar flow)





The commercial agreement with such supplier will be negotiated at or before the Order Management step using the Contract Management processes.

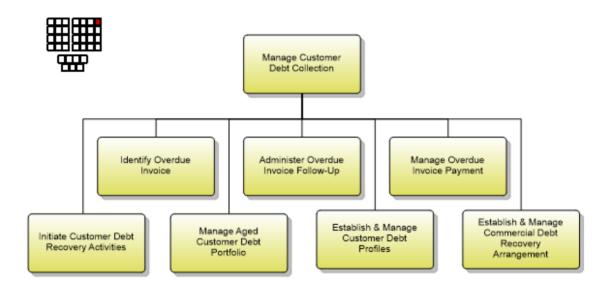
Ref [14] Apttus Contract Management Admin Guide

Page 100 Apttus Obligations Management. Obligation management refers to email alerts and reminders that ensure internal and external obligations in connection to your agreements are properly fulfilled.

The Obligation Management stage ensures that deliverables must be met.



4.4.3 L3: Manage Customer Debt Collection (1.1.1.11.3)



Process Identifier: 1.1.1.11.3

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Collect past due payments from the customer.

Extended Description

The purpose of the Manage Customer Debt Collection process is to collect past due payments from the customer. This process monitors the amount due from the customer, i.e. check whether the payments are made on time, and implements necessary activities and policies to recover amounts overdue.

The responsibilities of this process include, but are not limited to:

- Identifying invoices which are overdue for payment;
- Initiating and managing follow-up with customers having overdue amounts;
- Arranging and monitoring payment plans to allow customers to pay overdue amounts in installments;
- Initiating debt recovery activities in accordance with appropriate commercial practice and policies;
- Managing the aged customer debt portfolio;
- Establishing and managing customer debt profiles to assist in managing debt recovery and debt risk on a customer, product or customer group basis;



• Establishing and managing commercial arrangements with third parties for the recover of aged debt, and/or for the write-off and selling of parts of the debt portfolio to third parties

Note that these processes may initiate a direct enquiry to the customer and attempt to manage the initial recovery through the Bill Inquiry Handling processes. These processes use policies established by the Support Bill Payments & Receivable Management process to direct any escalation of the recovery processes being employed.

Note that where third party arrangements need to be put in place, these processes are responsible for establishing the requirements for, and managing any commercial arrangements agreed with, third party suppliers. The Supply Chain Capability Delivery process is used to deliver the commercial agreements.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved



4.4.3.1 L4: Identify Overdue Invoice (1.1.1.11.3.1) - Mapping Details

Process Identifier: 1.1.1.11.3.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Identify Overdue Invoice (1.1.1.11.3.1)

Mandatory

The purpose of Identify Overdue Invoice process is to identify invoices which are overdue for payment. It monitors the amount due from the customer AM

Ref [11] Apttus Billing Management August 2015

Page 26 the payment date an element of an invoice is recorded in the A/R Transaction

In a similar manner to Reconcile Customer Payments (1.1.1.11.2.3) above,

Page 13

"An Invoice Template includes the current outstanding balance owed by your customer and that amount includes all of the A/R transactions related to that invoice."

Page 32

You can use the **Related A/R transactions** to track, measure, and record incoming payments, credits, debits, and refunds

These transactions are used to maintain the customer's balance. In the Apttus system total balances are used to manage accounts receivable.

Pages 74 /75 Reconciliation process is the primary method used to verify the accuracy of an account's balance.

Some of the methods that can be used to reconcile accounts are.



- Reconcile beginning to ending balance
- Account details

An example of a typical report is shown on pages 74 / 75. It shows the invoices sent and payments received. Overdue payments can be identified here

Balance as of 6/1/xx				\$1,000.00
	Add:			
		Invoice 000110	100.00	
		Invoice 000111	175.00	
		Invoice 000112	65.00	



		Invoice 000113			
	Total Additions			\$675.00	
Sub-Total					\$1,675.00
	Less:				
		Payment 000078	(500.00)		
		Payment 000079	(100.00)		
		Payment 000080	(125.00)		
		Payment 000081	(50.00)		
		Payment 000082	(85.00)		
	Total Subtractions			\$(840.00)	
Ending Balance as of 6					\$835.00



4.4.3.2 L4: Administer Overdue Invoice Follow-up (1.1.1.11.3.2) – Mapping Details

Process Identifier: 1.1.1.11.3.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Administer Overdue Invoice Follow-up (1.1.1.11.3.2)

Mandatory

The purpose of Administer Overdue Invoice Follow-Up process is to initiate and manage follow-up with customers having overdue amounts. This process is responsible for setting up the follow-ups based on the policies. The policies are associated to customer's profile such as customer credit, customer group, overdue amounts, debt occurrence times, purchased products and etc.

This process is also responsible for modifying or removing the designated follow-ups when the policies or situations are changed. AM

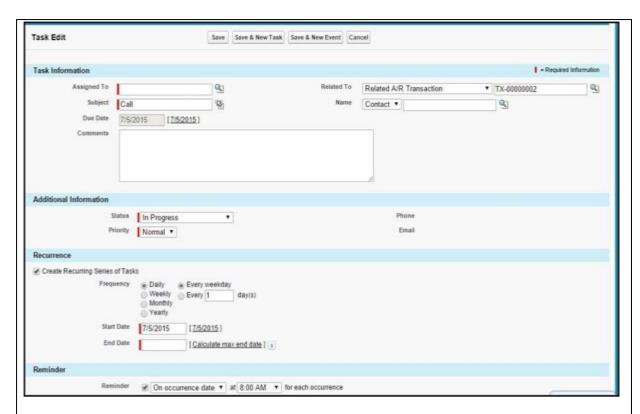
The Apttus solution does not offer this "out of the box" rather the initiation would be done manually and a workflow created during or after implementation according to the service provider's policy.

Ref [11] Apttus Billing Management August 2015

Page 72 /73 Payments collection falls under the Accounts Receivables (A/R) part of Apttus Billing Management. When an invoice is created Apttus Billing Management Automatically creates an Accounts Receivable transaction

The screenshot below shows a typical transaction where a task – for example someone is assigned to make a chase-up call is created. Reminders to complete this task (make the chase-up call) can also be scheduled (bottom of the screen)





When an overdue account has been identified, (1.1.11.3.1 above) customer follow-up is initiated manually. That is a decision is made according to the policy of the service provider.

See below for background information on policy.

Follow up tasks would be scheduled as "tasks" as shown in the example above.

Policies for the collection of debts would be documented in a Retention Policy and executed as a workflow (see below)

Ref[14] Apttus Contract Management Admin Guide

Page 131 The Retention Policy object contains the policy details. The policy specifications are contained in an XML format and maintained using a Visualforce page. The policy header information is maintained using a standard Salesforce page. For details on the Retention Policy XML schema, refer to Appendix J: Apttus Retention Policy Schema.

Page 126 Policy can be documented and applied through the creation of a Workflow Rule. The process to create such a rule is documented in page 126. Typically such a rule could include actions such as tasks, alerts and updates when policies or situations are changed.



4.4.3.3 L4: Manage Overdue Invoice Payment (1.1.1.11.3.3) – Mapping Details

Process Identifier: 1.1.1.11.3.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Manage Overdue Invoice Payment (1.1.1.11.3.3)

Mandatory

The purpose of Manage Overdue Invoice Payment process is to arrange and monitor payment plans to allow customers to pay overdue amounts in installments.

This process arranges payment plans to allow customers to pay overdue amounts, leads to an agreement with the customers, and monitors the execution of the payment plans.

This process should consider the payment amounts in installment whether can be undertaken by the customer. AM

If a customer has an overdue payment and wishes to rearrange the payment terms to pay the bill, then this would require a discussion, perhaps over the phone or face to face, and agreement between the parties after which the original contract would be changed accordingly by creating an amendment. See Manage Overdue Invoice Payment (1.1.1.11.3.3).

During the associated discussion a manual decision would be made as to the risk associated with the new terms and the customer's ability to adhere to them.

In the Apttus solution, the contract together with the order provides the source data from which subsequent actions are based.

So, for example a payment plan agreed would form the base data from which payments were matched.

If a payment date were to be altered, then the contract would be altered to reflect the new details.

Ref [2] Apttus Contract Management User Guide



Page 29

Amendment

During the term of the agreement you may need to modify the contract. For example, the language or terms of the contract. The Amend action is used for this functionality. The Amend action creates a new version of the agreement record. The new, amended record shares the same base agreement number as the original with the decimal point incremented by one. All the data from the original version is copied into the new version. The new version can then go through the same agreement process as described above. On execution of the amendment, the status category of the original version of the agreement is changed to Amended from In Effect.

REF [14] Apttus Contract Management Admin Guide

Page 96

For example, if your customer requires certain extended payment terms for an agreement, other than what is mentioned in your agreement document, you can associate such exception clause to your agreement as a term exception, named *Extended Payment Terms*.

To insert **Agreement term exception** in your agreement document, you must configure the following:

- 1. Create an admin entry.
- **2.** Create a term exception record.
- **3.** Associate your term exception record with a clause.

The steps are described in Page 97

153



4.4.3.4 L4: Initiate Customer Debt Recovery Activities (1.1.1.11.3.4) – Mapping Details

Process Identifier: 1.1.1.11.3.4

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Initiate Customer Debt Recovery Activities (1.1.1.11.3.4)

Mandatory

The purpose of Initiate Customer Debt Recovery process is to initiate customer debt recovery activities in accordance with appropriate commercial practice and policies.

This process includes deciding appropriate recovery activities based on debt recovery policies, launching debt recovery activities and monitoring the executions.

The debt recovery policies are associated to the customer's profile such as payment history, customer group, purchased products, overdue amounts.

This process includes overdue invoice reminding via phone call, SMS, email, by manually or automatically, by humans or applications. This process is also responsible for terminating customer debt recovery activities when the customer pays. AM

Ref [16] Apttus Advanced Workflow & Approvals (AWA) Data Sheet

In a similar fashion to 1.1.1.11.3.2 the appropriate activities would be created and documented through a workflow

Ref[14] Apttus Contract Management Admin Guide

Page 126 Policy can be documented and applied through the creation of a Workflow Rule. The process to create such a rule is documented in **page 126**. Typically such a rule could include actions such as tasks, alerts and updates when policies or situations are changed.

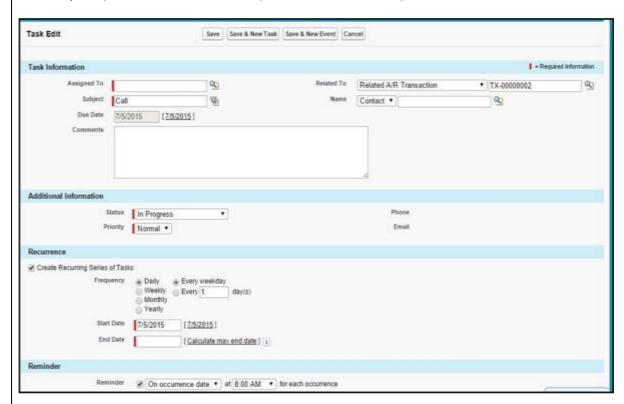
Reference to customer details such as payment history, are held in the system and can be accessed via the workflow

Ref [11] Apttus Billing Management August 2015



Page 72 /73 Payments collection falls under the Accounts Receivables (A/R) part of Apttus Billing Management. When an invoice is created Apttus Billing Management Automatically creates an Accounts Receivable transaction

The screenshot below shows a typical transaction where a task – for example someone is assigned to make a chase-up call is created. Reminders to complete this task (make the chase-up call) can also be scheduled (bottom of the screen)



Ref[14] Apttus Contract Management user Guide

Page 100 The Apttus system makes no distinction between external and internal customers



4.4.3.5 L4: Manage Aged Customer Debt Portfolios (1.1.1.11.3.5) – Mapping Details

Process Identifier: 1.1.1.11.3.5

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Manage Aged Customer Debt Portfolios (1.1.1.11.3.5)

Mandatory

The purpose of Manage Aged Customer Debt Portfolio process is to manage the aged customer debt portfolio.

When the customer debt can't be recovered in a period of time decided by Service Provider, this process is responsible to transform this customer debt to aged customer debt portfolio.

This process is responsible for transforming the overdue invoice to the aged customer debt portfolio when it didn't be recovered after a time of period or based on other triggers according to the Service Provider's policies. The aged customer debt portfolio should include all the information of the customer debt profiles. The process is also responsible for managing and maintaining transforming cycle.

When the overdue payment is recovered after transforming, this process is responsible to remove the aged customer debt portfolio and notice Establish & Manage Customer Debt Profiles process to update the customer debt profile. AM

The process for Establish & Manage Customer Debt Profiles (1.1.1.11.3.6) is shown below.

When an invoice is overdue to the extent that it cannot be easily recovered a workflow can be used to apply the service Provider's policy to transfer the information to the debt portfolio.

Reports can be run on the transactions associated with this customer / invoice such that if payment is received then action can be taken – manual or automatic to update the portfolio. Thereafter the service provider's policy will determine what happens next



4.4.3.6 L4: Establish & Manage Customer Debt Profiles (1.1.1.11.3.6) – Mapping Details

Process Identifier: 1.1.1.11.3.6

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Establish & Manage Customer Debt Profiles (1.1.1.11.3.6)

Mandatory

The purpose of Establish & Manage Customer Debt Profiles process is to establish and manage customer debt profiles to assist in managing debt recovery and debt risk on a customer, product or customer group basis.

The customer debt profile is a part of customer's profile, which can include customer credit, customer group, overdue date, overdue amounts, overdue occurring times, debt recovery means and occurring times, customer debt recovery response and etc.

This process is responsible for keeping updates of the customer debt profiles according to results from Initiate Customer Debt Recovery Activities process. AM

The Apttus solution does not offer this "out of the box" rather the system would be customized through the creation of a specific workflow during or after the installation.

Some generic evidence to support this is shown below:

Ref [11] Billing Management August 2015 Page 77

Transactions can be created to track, measure, and record incoming payments, credits, debits, and refunds.

Page 77 Every related transaction has an Activity History. Every mail or email you send, or make a call is logged in the Activity History.

The user Profile can be customized to contain all relevant information about the **Customer Ref [2] Contract Management User Guide page 17 refers**



4.4.3.7 L4: Establish & manage Commercial Debt recovery Arrangement (1.1.1.11.3.7) – Mapping Details

Process Identifier: 1.1.1.11.3.7

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Establish & Manage Commercial Debt recovery Arrangement (1.1.1.11.3.7)

Mandatory

The purpose of Establish & Manage Commercial Debt Recovery Arrangement process is to establish and manage commercial arrangements with third parties for the recovery of aged debt, and/or for the write-off and selling of parts of the debt portfolio to third parties.

This process is responsible for filtering and packaging the aged customer debt portfolios based on the Service Provider's policies, deciding the third parties' action items and monitoring the status of the arrangements. AM

Again the Apttus solution does not offer this "out of the box" but rather it supports it through customization.

Some supporting evidence for this is shown below:

In a similar fashion to that described in 1.1.1.11.3.2 Administer Overdue Invoice Follow-up, the Apttus system uses policies and workflows to achieve this.

Ref[14] Apttus Contract Management Admin Guide

Page 131 The Retention Policy object contains the policy details. The policy specifications are contained in an XML format and maintained using a Visualforce page. The policy header information is maintained using a standard Salesforce page. For details on the Retention Policy XML schema, refer to Appendix J: Apttus Retention Policy Schema.

Page 126 Policy can be documented and applied through the creation of a Workflow Rule. The process to create such a rule is documented in page 126. Typically such a rule could include actions such as tasks, alerts and updates when policies or situations are changed.

Changes to payment terms – deferred, rescheduled etc would be negotiated and reflected in an authorized change to the contract. (see Manage Customer Billing (1.1.1.11.1))



4.4.4 Supporting Evidence References (Works Cited)

Ref [2]	Apttus Contract Management User Guide
Ref [11]	Apttus Billing Management August 2015
Ref [14]	Apttus Contract management Admin Guide
Ref [15]	Apttus Advanced Workflows & Approvals (AWA) Data Sheet
Ref [16]	Apttus Advanced Workflow & Approvals (AWA) data Sheet
Ref [17]	Apttus Order Management user Guide
Ref [19]	Payment Card Industry Data Security Standard Report on Compliance
Ref [20]	Apttus API August 2015 Reference Guide



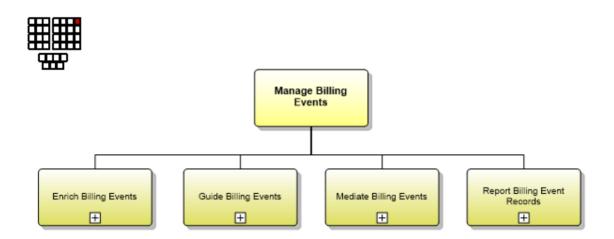
4.4.5 Summary of Level 3 & Level 4 Scores

Table 4-4 Bill Payments & Receivables Management (1.1.1.11) – Conformance Scores

Operations: Level 1: 1.1.1 - Customer Relationship Management Level 2: 1.1.1.11 - Bill Payments & Receivables Conformance Score Management				
1.1.1.11.1 - Manage Customer Billing	5			
1.1.1.11.2 - Manage Customer Payments	4.9			
1.1.1.11.2.1 - Manage Customer Payment Plan	100%			
1.1.1.11.2.2 - Collect Customer Payment	75%			
1.1.1.11.2.3 - Reconcile Customer Payment	100%			
1.1.1.11.2.4 - Manage Back-End Bank Account	100%			
1.1.1.11.2.5 - Administer Commercial Arrangement for	100%			
Third Party Supplier				
1.1.1.11.3 - Manage Customer Debt Collection	4.4			
1.1.1.11.3.1 - Identify Overdue Invoice	100%			
1.1.1.11.3.2 - Administer Overdue Invoice Follow-Up	75%			
1.1.1.11.3.3 - Manage Overdue Invoice Payment	100%			
1.1.1.11.3.4 - Initiate Customer Debt Recovery Activities	50%			
1.1.1.11.3.5 - Manage Aged Customer Debt Portfolio	50%			
1.1.1.11.3.6 - Establish & Manage Customer Debt Profiles	50%			
1.1.1.11.3.7 - Establish & Manage Commercial Debt	50%			
Recovery Arrangement				



4.5 L2: Manage Billing Events (1.1.1.14)



Process Identifier: 1.1.1.14

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Encompasses the functions required to guide, distribute, mediate, summarize, accumulate, and analyse billing event records.

Extended Description

The billing events management processes encompass the functions required to guide, distribute, mediate, summarize, accumulate, and analyse billing event records. These processes may occur in real-time, near real-time, or may be executed on a periodic basis.

Billing event records include records produced by network elements (service events), records that indicate the need for periodic billing of a reoccurring product rate, and records that indicate the need for billing of a non-reoccurring rate.

The guiding processes ensures that the event records used in the billing processes are appropriately related to the correct customer billing account and products.

The billing event records are edited and if necessary reformatted (mediated) to meet the needs of subsequent processes. The billing event records may also be enriched with additional data during this process.



Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

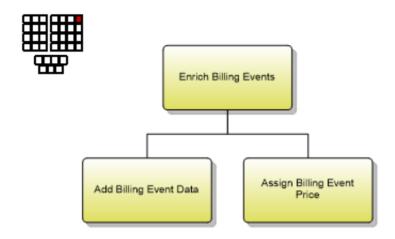
Optional

Reserved for future use.

Interactions



4.5.1 L3: Enrich Billing Events (1.1.1.14.1)



Process Identifier: 1.1.1.14.1

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Enrich billing event records with additional data.

Extended Description

The Enrich Billing Events processes will augment the billing event records by adding data to the records from sources such as customer, product, or other reference data.

A billing event may be assigned a price without consideration of specific product or customer information. The assigned price may be used to enrich the billing event record.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional



Interactions



4.5.1.1 L4: Add Billing Event Data (1.1.1.14.1.1) – Mapping Details

Process Identifier: 1.1.1.14.1.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Add Billing Event Data (1.1.1.14.1.1)

Mandatory

The purpose of Add Billing Event Data process is to add data to the records from sources such as customer, product, or other reference data to augment the billing event records. This process is responsible for enriching billing events with additional data which is not provided by or known by services providing the billing events, but needed by other billing processes.

Hence this process is also responsible for obtaining additional data from corresponding data sources based on each billing events record information. AM

During the life of a contract, it may need to be modified with for example a customer's address or contact telephone number or the need to provide supplementary information

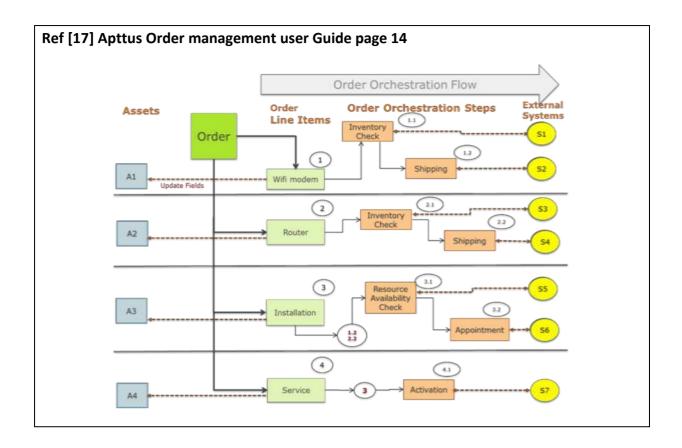
In this case the amendment creates a new version of the contract from which the invoice takes its data Ref [14] Apttus Contract Management Admin Guide Page 99 Amendment refers

Ref [1] Apttus Configuration & Pricing (CPQ) User Guide page 35 Reprice Quote

The Apttus Billing system is closely integrated with other Quote-to-cash processes such that adjustments in, for example, the order or the contract which may have an impact on the bill are passed to the Billing system. This could include change of address, discount thresholds, change in billing frequency and so on

The system can also be integrated with other external systems such as Inventory Systems to capture events that could have an impact on the billing events record.







4.5.1.2 L4: Assign Billing Event Price (1.1.1.14.1.2) – Mapping Details

Process Identifier: 1.1.1.14.1.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

L4: Assign Billing Event Price (1.1.1.14.1.2)

Mandatory

The purpose of Assign Billing Event Price process is to assign a price to a billing event without consideration of specific product or customer information. This process performs static rating of service events without considering customer or product information AM

Note: I have used the process Framework "Explanatory" paragraph(reproduced below) as a guide as to what this activity involves

Explanatory

The assigned price may be used to enrich the billing event record. As an example, originating on-net call CDRs are priced at \$1 per started minute during peak hours, without considering customer data or agreements for the involved user which could affect the final price paid.

Ref [11] Apttus Billing Management August 2015Usage input

Page 50 Usage input object is where raw unrated usage comes into the system. Usage price tiers and rating are associated to the usage input object. From here you can rate usage manually or this object is used while creating Salesforce batch jobs to rate usage

• For example, you are an executive in the Billing department of an Internet Service Provider. You must capture and process the amount of data your customers have used so you can calculate the amount that you will generate an invoice for.

With a scheduled batch job, Apttus Billing Management processes the Usage Input to rate the usage, and automatically updates the rated amount to the associated Billing Schedule. When the usage record you process has incomplete or incorrect information, Apttus Billing Management displays an Error status after you attempt to rate it

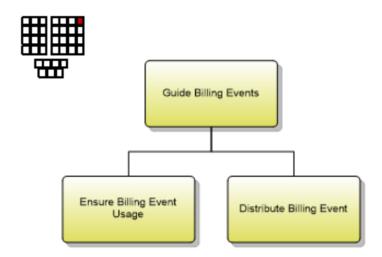




The process is described in Page 51



4.5.2 L3: Guide Billing Events (1.1.1.14.2)



Process Identifier: 1.1.1.14.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Ensures that the event records used in the billing processes are related to the correct customer billing account and subscribed products.

Extended Description

The Guide Billing Events processes ensure that the event records used in the billing process relate to the correct customer billing account and products. A specific event record may be related to multiple customer billing accounts and subscribed products.

Distribution of billing event records to other processes may also occur.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions



4.5.2.1 L4: Ensure Billing Event Usage (1.1.1.14.2.1) – Mapping Details

Process Identifier: 1.1.1.14.2.1

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Ensure Billing Event Usage (1.1.1.14.2.1)

Mandatory

The purpose of Ensure Event Record Usage process is to ensure that the event records used in the billing process relate to the correct customer billing account and products. AM

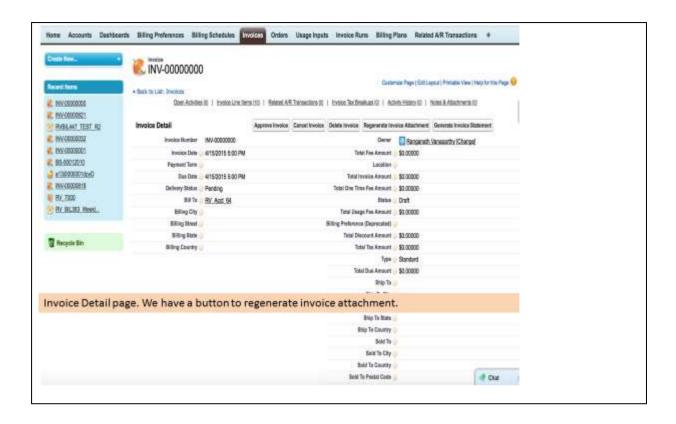
Before an invoice is created the product bought and the prices need to be configured in the CPQ **Ref [11] Billing Management August 2015 page 21** refers

The relationship between event records and customer billing account records is maintained through this relationship.

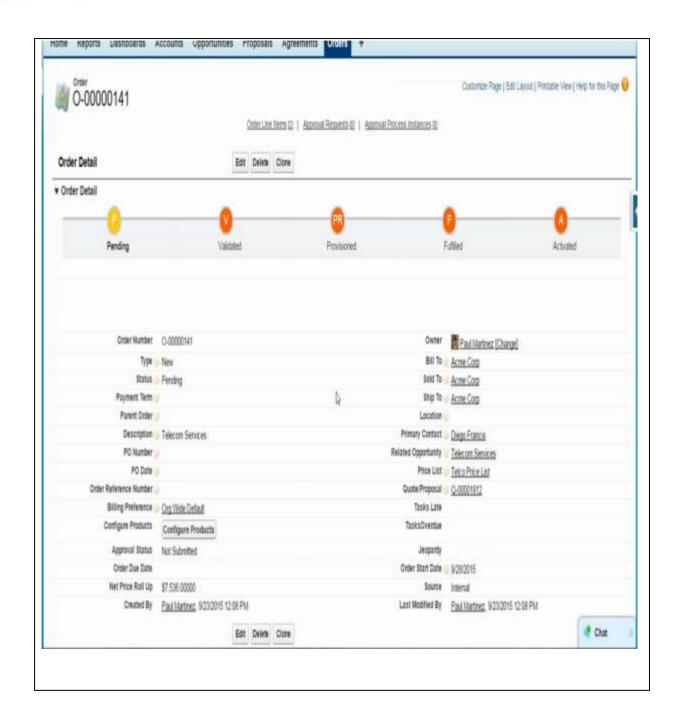
Here we can see a typical invoice as a screenshot from the Billing process. Along the top there is a list of headers including invoice, orders, usage-inputs. This correlation between all of these at this point ensures the requirement is met.













4.5.2.2 L4: Distribute Billing Event (1.1.1.14.2.2) – Mapping Details

Process Identifier: 1.1.1.14.2.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Distribute Billing Event (1.1.1.14.2.2)

Mandatory

The purpose of Distribute Billing Event process is to distribute billing events to other processes which need access to billing events. **AM**

This process is also responsible for recording distribution logs to avoid duplicated billing event distribution AM

Referring to the previous level 4, Ensure Billing Event Usage (1.1.1.14.2.1), billing events are made available to other processes such as dashboard presentation A/R transactions etc



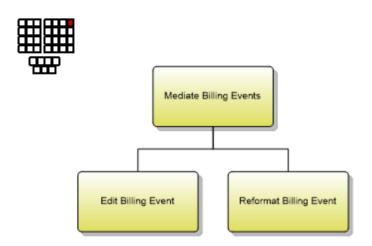
For external processes, for example

Apttus utilizes third-party applications like Jitterbit to integrate with a customer's backend system to initiate, track and update the fulfilment and provisioning status on the order. Ref [17] Apttus Order Management User Guide Page 15

The event would be distributed via the API



4.5.3 L3: Mediate Billing Events (1.1.1.14.3)



Process Identifier: 1.1.1.14.3

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Edits and reformats data for recipient applications.

Extended Description

The Mediate Billing Events process edits and reformats the data record to meet the needs of a recipient application.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Interactions



4.5.3.1 L4: Edit Billing Event (1.1.1.14.3.1) – Mapping Details

Process Identifier: 1.1.1.14.3.1

LEVEL 4 PROCESS MAPPING DETAILS

Edit Billing Event (1.1.1.14.3.1)

Mandatory

This process is responsible for editing billing events to adapt to the contents expected by receiving processes and applications. This includes examining individual fields in billing events, modifying the contents of individual fields in billing events and removing unwanted data and fields, identifying billing event type.

Additionally, this process is also responsible for billing events consolidation, billing event splitting, billing events correlation and duplicated billing events deletion if necessary. AM

Billing events generated internally in the Apttus system are presented in a format that is expected.

Externally generated events are modified via the API

Visual examination of individual fields is done and those fields can be modified / deleted as required

Ref [11] Apttus Billing Management August 2015

Page 57 *Creating an invoice* describes some of the fields/information that can be customized for receiving applications.

The billing schedule can also be edited

Page 47

You must edit an existing Billing Schedule to update other fields described here.

You can also create Billing Schedules manually for each order or asset line item.

For example, you are an executive in the billing department of an online university. One of your customers has subscribed to three courses. On the cart page, you defined the Selling Frequency for two products as yearly and one product as yearly. When you configure each price list item however, you define the Billing Frequency for each as *Monthly*, the resulting Billing Schedule for each order is then *Monthly*.

The steps are identified in pages 47/48



4.5.3.2 L4: Reformat Billing Event (1.1.1.14.3.2) – Mapping Details

Process Identifier: 1.1.1.14.3.2

Mandatory

The purpose of Reformat Billing Event process is to reformat billing events to adapt to the format expected by receiving processes and applications. This includes examining individual fields in billing events and translating billing events from one format to another

Additionally, this process is also responsible for maintenance the input and output format template.

LEVEL 4 PROCESS MAPPING DETAILS

Reformat Billing Event (1.1.1.14.3.2)

Mandatory

The purpose of Reformat Billing Event process is to reformat billing events to adapt to the format expected by receiving processes and applications. This includes examining individual fields in billing events and translating billing events from one format to another

Additionally, this process is also responsible for maintenance the input and output format template. AM

Billing events generated internally in the Apttus system are presented in a format that is expected.

Externally generated events are modified via the API

Additionally, You can create an invoice manually or automatically and configure the invoice to be delivered in several formats and over different platforms. Link an invoice with a customer's billing preference to use these configurations **Ref [11] Apttus Billing management august 2015 page 57** refers. An example could be the date format of an event

Another example:

You work in billing operations at a software company. You want to generate an invoice in a different format only for one invoice run, but do not want to change the default template at the account level. Input the name of the template you wish to override with and run the invoice run

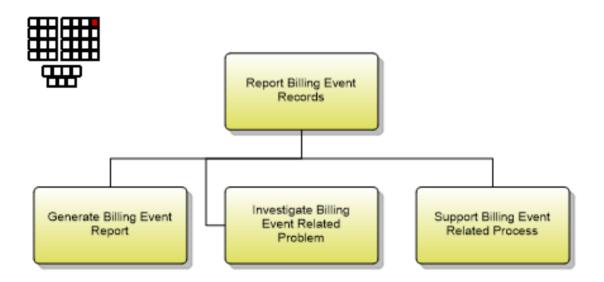


to create invoices using a new template. Page 13 shows how this is done.

The templates are maintained in the system Ref [12] Apttus X-Author Contracts User Guide page 34 – 101 pertinent page 90 Dynamic Segments & Document Assembly



4.5.4 L3: Report Billing Event Records (1.1.1.14.4)



Process Identifier: 1.1.1.14.4

Process Context

This process element represents part of the overall enterprise, modeled in business process terms, and can be applied (ie "instantiated") with other similar process elements for application within a specific organization or domain.

Brief Description

Generate reports on billing event records based on requests from other processes.

Extended Description

The purpose of the Report Billing Event Record processes is to generate reports on billing event records based on requests from other processes.

These processes produce reports that may identify abnormalities, which may be caused by fraudulent activity or related to customer complaints.

Investigation of problems related to these event records is also part of this process.

These processes also support other processes such as customer review of billing events (pre-billing and post-billing).

Explanatory



Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

4.5.4.1 L4: Generate Billing Event Report (1.1.1.14.4.1) - Mapping Details

Process Identifier: 1.1.1.14.4.1

LEVEL 4 PROCESS MAPPING DETAILS

Generate Billing Event Report (1.1.1.14.4.1)

Mandatory

The purpose of the Generate Billing Event Report process is to generate reports on billing event records. This process produces reports that may identify abnormalities, which may be caused by fraudulent activity or related to customer complaints AM

In the Apttus system the "amount due" is referred to as the "Arrangement fee". A single agreement may have several arrangement fees. Details of how these fees are expected (bill payments schedule) is referred to as a "Revenue Schedule"

Ref [15] Apttus Revenue Recognition may 2015 User Guide page 15 – 16 refers

Page 79 The system is capable of producing a range of reports including reports on Agreement Revenue. These reports can be used to help identify anomalies.

Ref [1] Apttus Configuration & Pricing User Guide

Page 10 Reports

Salesforce delivers standard report folders containing reports for each record type. For example: Accounts, Opportunities, Leads, and more. These reports are used as a starting point for your organizations reporting efforts. Salesforce allows all users to run, customize,



and create reports. For more information on setting up and managing reports within Apttus, see salesforce.com information related to creating and customizing reports.

Apttus provides you a set of out-of-the-box reports. You may create new reports or customize existing reports. To modify an existing report, run the report and click Customize. For more information, see Create a custom report.



4.5.4.2 L4: Investigate Billing Event Related Problem (1.1.1.14.4.2) - Mapping Details

Process Identifier: 1.1.1.14.4.2

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS

Investigate Billing Event Related Problem (1.1.1.14.4.2)

Mandatory

The purpose of the Investigate Billing Event Related Problem process is to investigate problems related to billing event records. Where reporting indicates problems with billing event records such as data format errors, configuration problems, system or network problems this process initiates and manages an investigation and follow-up of the indicated problems. **AM**

This is not delivered as an "out of the box" feature, rather it is achieved, with a combination of workflow settings, triggers and reports.

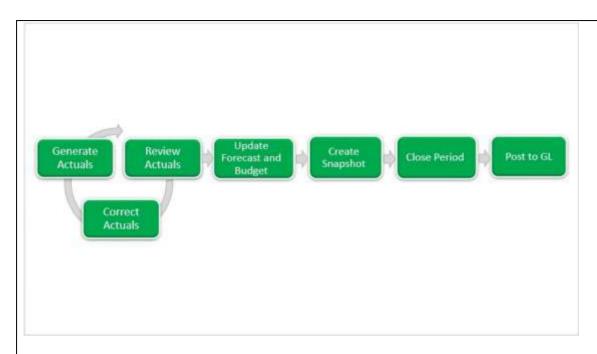
Ref [15] Apttus Revenue Recognition may 2015 User Guide

At the end of every period, the Finance team closes the period and posts the revenue totals in their GL. This allows the company to report the amount of revenue that was generated in that period.

During the close process, revenue teams will be managing revenue across all agreements. The Revenue Console is used to manage all agreements and revenue for the period during the close.

Close Process Flow





Page 53 One of the activities associated with this close process is shown below

INEVELINE INCUUSIIIIIOH IVIAY ZUTU OBEL OUINE

Activity	Action from Revenue Console	Description		
Generate Generate Actual I	Generate Actual Revenue	Generate actual revenue for all the agreements.		
		Correct errors on Agreements if they are listed in the Eligible Agreements Report.		

Bearing in mind the definition of an agreement *in Generate Billing Event Report (1.1.1.14.4.1)* above, if an error is discovered it can be investigated.



4.5.4.3 L4: Support Billing Event Related Processes (1.1.1.14.4.3) – Mapping Details

Process Identifier: 1.1.1.14.4.3

Process Context

This process element represents part of the overall enterprise, modelled in business process terms, and can be applied (i.e. "instantiated") with other similar process elements for application within a specific organization or domain.

LEVEL 4 PROCESS MAPPING DETAILS Support Billing Event Related Processes (1.1.1.14.4.3) Mandatory The purpose of the Support Billing Event Related Process is to support other processes which use or consume billing events. AM Excerpt from Level 3 extended description These processes also support other processes such as customer review of billing events (pre-billing and post-billing). Billing events are recorded and archived against the order & invoice. APTIUS Basch Ba



4.5.5 Supporting Evidence References (Works Cited)

Ref [1]	Apttus Configuration & Pricing User Guide
Ref [2]	Apttus Contract Management User Guide
Ref [11]	Apttus Billing Management August 2015
Ref [12]	Apttus X-Author Contracts User Guide
Ref [15]	Revenue Recognition may 2015 User Guide
Ref [17]	Apttus Order Management user Guide



4.5.6 Summary of Level 3 & Level 4 Scores

Table 4-5 Manage Billing Events (1.1.1.14) – Conformance Scores

Operations: Level 1: 1.1.1 - Customer Relationship Management Level 2: 1.1.1.14 - Manage Billing Events Conformance Scores				
1.1.1.14.1 - Enrich Billing Events	5			
1.1.1.14.1.1 - Add Billing Event Data	100%			
1.1.1.14.1.2 - Assign Billing Event Price	100%			
1.1.1.14.2 - Guide Billing Events	5			
1.1.1.14.2.1 - Ensure Billing Event Usage	100%			
1.1.1.14.2.2 - Distribute Billing Event	100%			
1.1.1.14.3 - Mediate Billing Events	5			
1.1.1.14.3.1 - Edit Billing Event	100%			
1.1.1.14.3.2 - Reformat Billing Event	100%			
1.1.1.14.4 - Report Billing Event Records	4.7			
1.1.1.14.4.1 - Generate Billing Event Report	100%			
1.1.1.14.4.2 - Investigate Billing Event Related Problem	50%			
1.1.1.14.4.3 - Support Billing Event Related Process	100%			



5 Information Framework Assessment Overview

5.1 Mapping Technique Employed

Not applicable for this assessment.

5.2 Information Framework Assessment - ABE Scope

Not applicable for this assessment.

5.3 Solution Scope

Not applicable for this assessment.



6 Frameworx Conformance Result

This section details the Scores awarded to reflect Conformance of Apttus' Quote-to-Cash solution to the Business Process Framework & Information Framework components of Frameworx 14.5.

6.1 Business Process Framework – Scoring Rules

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

Frameworx 14.5 Conformance Certification (Product/Solution/Implementation)						
Busi	Business Process Framework (eTOM) - Conformance Level Descriptions (Level 3 processes)					
Process level	Conformance Score	Qualifier				
Level 1	Not applicable	Conformance Assessment shall not be carried out at this process level - hence Confomance Level shall not be awarded at this level.				
Level 2	Not applicable	A conformance level is not awarded to Level 2 processes in Frameword 12.0 Assessments. The Certification Report shall highlight the coverage of a Level 2 process submitted in scope for an Assessment in terms of number of Level 3 processes submitted for assessment out of the total number defined for the Level 2 process.				
Level 3	Score is awarded between 3.1 & 5.	The Conformance Score is awarded for each Level 3 processes submitted in scope for the Assessment. The Conformance Score awarded can be a value between 3.1 & 5 depending on the level of coverage & conformance to the Level 3 process based on the alignment to the level 3 Implied Tasks as decomposed in the Level 4 process definitions. Any manual implementation of the process support shall be noted in the Conformance Report and Detailed Results Report.				

Figure 6-1 TM Forum Business Process Framework: Conformance Scoring Rules



Additional Notes on Business Process Framework Conformance Scoring

1. Level 1 processes shall be presented to define the assessment scope only. i.e. they shall not be assessed as self-contained processes since the level of detail is not considered sufficient.

A conformance level shall not be awarded for Level 1 processes.

2. Level 2 processes shall be presented to define the assessment scope only. i.e. they shall not be assessed as self-contained processes since the level of detail is not considered sufficient.

A conformance level shall not be awarded for Level 2 processes. However, the Certification Report shall provide good indication of the coverage of the Level 2 process in terms of number of contained Level 3 processes submitted in scope for the Assessment.

- 3. The Conformance Assessment shall be carried out at process level 3. For each Level 3 process, conformance shall be deduced according to the support for the process implied tasks, as decomposed and described in the underlying Level 4 process descriptions. The score awarded for a Level 3 process, is deduced according to the support mapped to the Level 4 processes/Implied Tasks. This provides finer granularity of scoring than in Assessment prior to Frameworx 12.0 based Assessments.
- 4. In evaluating conformance to the standards, manual intervention shall not impact the conformance score granted. However, any level of manual support shall be noted in the Conformance Report and Detailed Results Report. This note specifically applies to Product & Solution Assessments.
- 5. Processes that are supported via manual implementation only, are not considered in scope for the Assessment. This note specifically applies to Product & Solution Assessments.



6.2 Business Process Framework – Conformance Result Summary

The graph in this section provides an overview of the conformance levels granted to the Level 3 Processes presented in scope for the Apttus Quote-to-Cash 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.

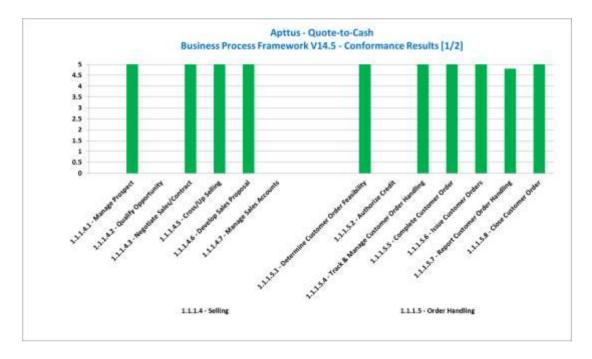


Figure 6-2 Business Process Framework: Conformance Result Summary [1/2]



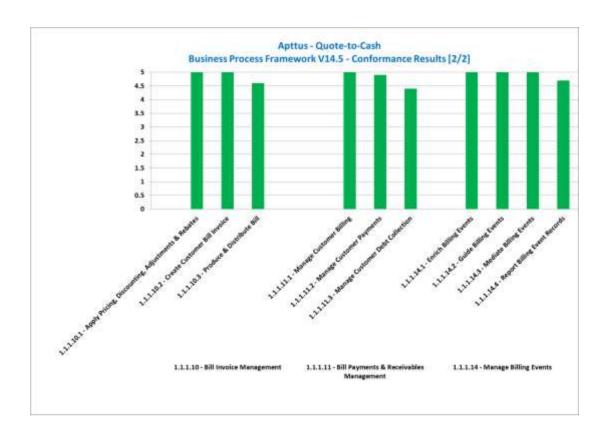


Figure 6-3 Business Process Framework: Conformance Result Summary [2/2]



6.3 Business Process Framework – Detailed Conformance Results

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

Table 6-1 Business Process Framework: Detailed Conformance Results

Apttus Quote-to-Cash Solution							
Business Process Framework (eTOM) Release 14.5 Conformance							
L1 / L2 / L3 Process	L3 Process Score [L2 Coverage]	Comments					
Level 1: 1.1	Level 1: 1.1.1 - Customer Relationship Management						
Level 2: 1.1.1.4 - Selling	[4/6]						
1.1.1.4.1 - Manage Prospect	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).					
1.1.1.4.2 - Qualify Opportunity	Not in scope	Not in scope.					
1.1.1.4.3 - Negotiate Sales/Contract 1.1.1.4.5 - Cross/Up Selling	5.0 5.0	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). Fully Conformant					
1.1.1.4.3 - Crossy op Sennig	3.0	Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).					
1.1.1.4.6 - Develop Sales Proposal	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).					
1.1.1.4.7 - Manage Sales Accounts	Not in scope	Not in scope.					



[6/7]	
5.0	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).
Not in scope	Not in scope.
5.0	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).
5.0	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).
5.0	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).
4.8	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations.
5.0	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).
	5.0 Not in scope 5.0 5.0 4.8



Level 2: 1.1.1.10 - Bill Invoice	[3/3]	
Management	[5/5]	
1.1.1.10.1 - Apply Pricing, Discounting, Adjustments & Rebates	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.10.2 - Create Customer Bill Invoice	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.10.3 - Produce & Distribute Bill	4.6	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations.
Level 2: 1.1.1.11 - Bill Payments & Receivables Management	[3/3]	
1.1.1.11.1 - Manage Customer Billing	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.11.2 - Manage Customer Payments	4.9	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations.
1.1.1.11.3 - Manage Customer Debt Collection	4.4	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations.



Level 2: 1.1.1.14 - Manage	[4/4]	
Billing Events		
1.1.1.14.1 - Enrich Billing Events	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.14.2 - Guide Billing Events	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.14.3 - Mediate Billing Events	5.0	Fully Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process fulfilled alignment criteria with the standard Business Process Framework (eTOM).
1.1.1.14.4 - Report Billing Event Records	4.7	Partially Conformant Supporting evidence and documentation submitted for the assessment of this level 3 process supported alignment criteria with the standard Business Process Framework (eTOM) but with some deviations.



6.4 Information Framework – Scoring Rules

As of Frameworx 14.0 Conformance Assessments, TM Forum awards two categories of conformance scoring to the Information Framework assessment as follows:

- Information Framework Maturity Conformance Levels
- Information Framework Adoption Conformance Scores

This section describes the basis of scoring for each of these categories.



6.4.1 Information Framework Maturity Conformance Scoring Methodology

The Information Framework Maturity Conformance scores are granted based on the detailed scoring guidelines outlined in Table 6-2.

Maturity conformance is based on a progressive scoring system - i.e. a lowest level ABE must conform completely to the conformance criteria at one score level before proceeding to the next level.

For example, to achieve a score of 3 there must be equivalence to all the required attributes of the ABE's core entity.

A decimal scoring system is utilized to show the per cent achievement towards the next level.

With the Information Framework Maturity Conformance scoring, no further contribution to the score is made for equivalence to the ABE's remaining dependent entities and other SID components. For example, no further contribution to the score is made even if there is equivalence to 8 of the ABE's 10 dependent entities.

As of Frameworx 14.0 based Conformance Assessments, to recognize the overall adoption of the Information Framework SID Information model, the Information Framework Adoption Scoring system is applied. See 6.4.2 Information Framework Adoption Conformance Scoring Methodology for details of this Conformance category.



Table 6-2 TM Forum Information Framework Maturity Conformance - Scoring Rules

Information Framework R14.5: <u>Maturity Conformance</u> Scoring Guidelines					
Maturity Conformance Level	Progressive Scoring Qualifiers				
Non 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.				
Non Conformance [Score = 2]	The model has passed level 1 conformance 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. A core business entity is an entity upon which other entities within the ABE are dependent. E.g. Service in the Service ABE. A core entity is also an entity whose absence in the ABE would make the ABE incomplete.				
Very Low Conformance [2.0 < Score <= 3.0]	The model has passed level 2 conformance and *a percentage of the required attributes of the ABE's core entity or entities are defined in the model.				
Low Conformance [3.0 < Score <= 4.0]	The model has passed level 3 conformance and *a percentage of the dependent entities within the ABE are defined in the model. 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.				
Medium Conformance [4.0 < Score <= 5.0]	The model has passed level 4 conformance and *a percentage of the required attributes of the ABE's dependent entities are defined in the model.				
High Conformance [5.0 < Score <= 6.0]	The model has passed level 5 conformance and *a percentage of all attributes of the ABE's core entities are defined in the model.				
Very High Conformance [6.0 < Score < 7.0]	The model has passed level 6 conformance and *a percentage of all attributes of the ABE's dependent entities are defined in the model.				
Full Conformance [Score = 7.0]	The model has achieved Level 7 conformance (Full Conformance) and <u>all</u> attributes of the ABE's core & dependent entities are defined in the model.				



Additional Notes on Information Framework Conformance Maturity Level scoring:

- 1. For each level, according to what is required, a value is calculated based on the percentage of entities/attributes supported as appropriate. This will result in a decimal figure (rounded to one decimal place).
- 2. Maturity Level versus Adoption Score: Using the progressive scoring schema for Maturity Level, an assessed ABE for which there is equivalence to 2/3 required core attributes and 8/10 dependent entities would be awarded Maturity Level Score = 2.5 (Very Low Conformance) & Adoption Conformance score = 5.2 (Medium Conformance). For the Maturity Level, because not all required attributes of the Core Entity are supported, the Maturity Level score does not progress to the next level, regardless of conformance to other components of the ABE.
- 3. 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.
- 4. 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.



6.4.2 Information Framework Adoption Conformance Scoring Methodology

As of Frameworx 14.0 based Conformance Assessments, to recognize the overall adoption of the Information Framework SID Information model, the Information Framework Adoption Scoring system is introduced to complement the Maturity Levels that have been used since the launch of the Frameworx Conformance Programme.

Information Framework Adoption scores are granted based on the detailed scoring guidelines outlined in Table 6-3.

Adoption conformance is based on an accumulative scoring system - i.e. scores are awarded for each element of an ABE to give an overall total Adoption score for the ABE — with elements in this context defined by core & dependent entities and required & optional attributes for both category of entity.

The scores for each element are calibrated according to relative weightings, according to the significance of each element e.g. core entity having higher weighting than dependent entities and required attributes having higher weighting than optional attributes. The relative weightings for each ABE 'element' are indicated in Table 6-3.



Table 6-3 TM Forum Information Framework Adoption Conformance - Scoring Rules

Information Framework R14.5: Adoption Conformance Scoring Guidelines							
SID Component			Weighted Scoring Calculation				
Lowest Level ABE		Equivalent – 1 score point					
Core Entity	Core Entity		Equivalent – 2 score points				
Core Entity Required Attribute		% equivalent * 2 [See note 2]					
Dependent Entity		% equivalent * 1.5					
Dependent E	Dependent Entities – Required						
Attributes		% equivalent * 1.5					
Core Entity – Optional Attributes		% equivalent * 1.2					
Dependent E	Dependent Entity – Optional Attributes		% equivalent * 0.8				
	Adoption Conformance Score Graduation						
Non Conformance [Score=1-3]	Very Low Conformance [3.0 < Score <= 4.0]	Low Conformance [4.0 < Score <= 5.0]	Medium Conformance [5.0 < Score <= 6.0]	High Conformance [6.0 < Score <= 8.0]	Very High Conformance [8.0 < Score < 10.0]	Full Conformance [Score = 10.0]	



Additional Notes on Information Framework Conformance Adoption scoring:

- 1. The score values for each SID component are added together to get the overall Adoption Conformance score.
- 2. If 50% of the required attributes of Core entities are not supported, scores for following categories are not applied as Adoption Conformance requires conformance to 50% of the required attributes of Core entities.
- 3. Adoption Score versus Maturity Level: Using the scoring category to recognize SID adoption, an assessed ABE for which there is equivalence to 2/3 required core attributes and 8/10 dependent entities would be awarded Maturity Level Score = 2.5 (Very Low Conformance) & Adoption Conformance score = 5.2 (Medium Conformance).



6.5 Information Framework – Conformance Result Summary

Not applicable for this assessment.

6.5.1 Information Framework - Maturity Conformance Result Summary

Not applicable for this assessment.

6.5.2 Information Framework - Adoption Conformance Result Summary

Not applicable for this assessment.



6.6 Information Framework – Detailed Conformance Result

Not applicable for this assessment.