Tibco Fulfillment Orchestration Suite R

TM Forum Frameworx 17.0 Certification

Business Process Framework (eTOM) Release 17.0

Self-Assessment Process Mapping Report

Level 2 Processes in Scope – Customer Domain

1.3.3 - Order Handling

Version 1.0

January 3rd, 2018

Table of Contents

Guidelines

➢ For each Level 2 process in scope a Mapping Document should be created.

➢ In each Level 2 based document, the mapping team should provide mappings for each of the underlying Level 4 processes belonging to the Level 3 processes within the Level 2s in scope.

➢ If there are no Level 4 processes defined for a Level 3 process in scope for the assessment, the member should provide the mapping support against the Brief & Extended descriptions of the Level 3 process.

➢ Note that the descriptions should be the descriptions of the underlying Level 4 processes and specifically the description in the "Mandatory" field of the process.

➢ If the Level 4 process does not have a completed "Mandatory" field, then the "Extended Description" should be used. If there is no "Extended Description" available (sometimes this can happen), then the mappings should be provided against the "Brief Description".

➢ This template provides the structure for the Self-Assessment Mapping Document taking into account the use of Level 4 processes to demonstrate mapping support and also Level 3 processes for the situations where a Level 3 process does not or cannot decompose further to a Level 4 process with Business Process Framework 17.0
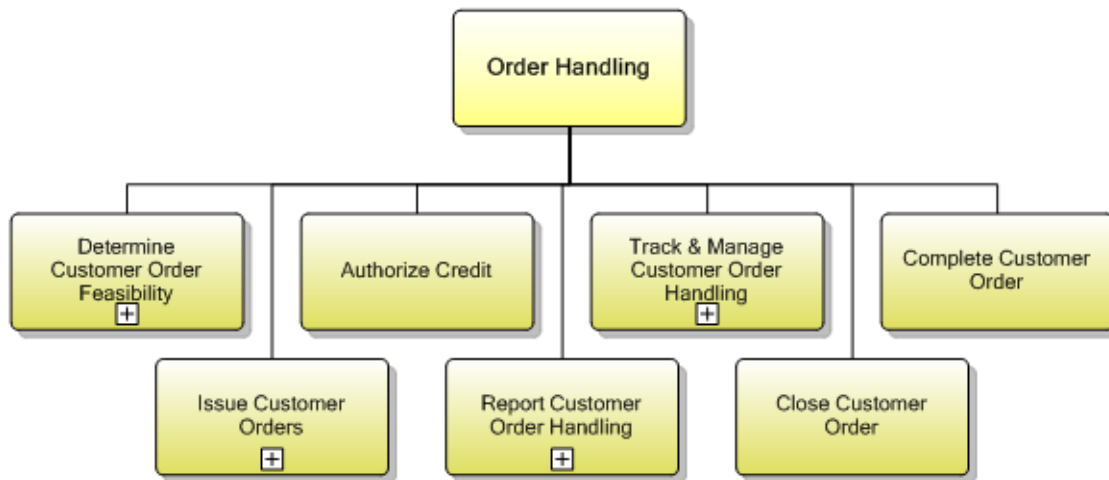
1.3.3 Order Handling

Figure 1 1.3.3 Order Handling decomposition

Process Identifier: 1.3.3

Brief Description
Responsible for accepting and issuing orders.

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

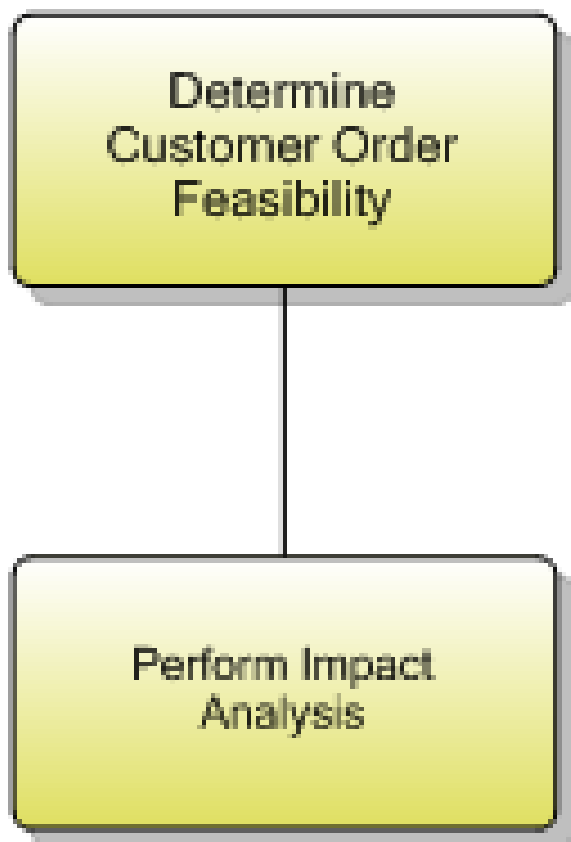## 1.3.3.1 Determine Customer Order Feasibility

Figure 2 1.3.3.1 Determine Customer Order Feasibility decomposition

Process Identifier: 1.3.3.1

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

The Fulfillment Order Management supports feasibility checking as an optional step in the order lifecycle that analyzes the order to determine if it can be fulfilled with the Offer and Price Engine (OPE). Feasibility checking may involve validating if the order contains the required products, product integrity, segment eligibility, data validation, compatibilities, and group and record constraints.

FOM User's Guide: "Offer and Price Engine Product Model" chapter

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. **AM**

See Brief Description

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

The Offer and Price Engine (OPE) can implement the invocation of requests to SM&O provisioning processes managed by Fulfillment Order Management or any other systems. TIBCO BusinessWorks can be used to implement connectivity to external systems.

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

The Offer and Price Engine can implement any kind of logic including this one.

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Perform Impact Analysis

Process Identifier: 1.3.3.1.1

Brief Description

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

OPE checks product eligibility and validation for customer orders. The Get Offer web service of OPE validates the incoming offer with the existing basket of the customer. The validation considers product integrity, product compatibility with the products in the offer, segment compatibility with basket items, and group requirements. In case of ceased products, it checks if the item is present in TIBCO Fulfillment Subscriber Inventory in a blocked status. Depending upon the migrations created in the product model, the

offer includes the products to be migrated for otherwise incompatible products. Eligibility is evaluated for all products including the auto provisioned products. In case any auto provisioned child is invalid, the product is ineligible. The OPE Validate Offer web service validates the request based on the number of inputs including segments, order, and offer. When you submit an order request, that order is submitted to OPE. Based on the product model and group constraints, it returns a message stating if the products are valid or not. The validation considers product integrity, product compatibility with the products in offer, segment compatibility, category compatibility, and group requirements of basket items.

FOM Web Services Guide: "Get Offer Service" and "Validate Offer Service"

Extended Description
Not used for this process element

Explanatory
This process is used to determine the impact on feasibility of customer orders. After determination on feasibility of customer orders, impact analysis will detect the need of change. It determines the impact on customer solution service components.

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

Optional
Not used for this process element

Interactions
This process supports the ITIL change management process.

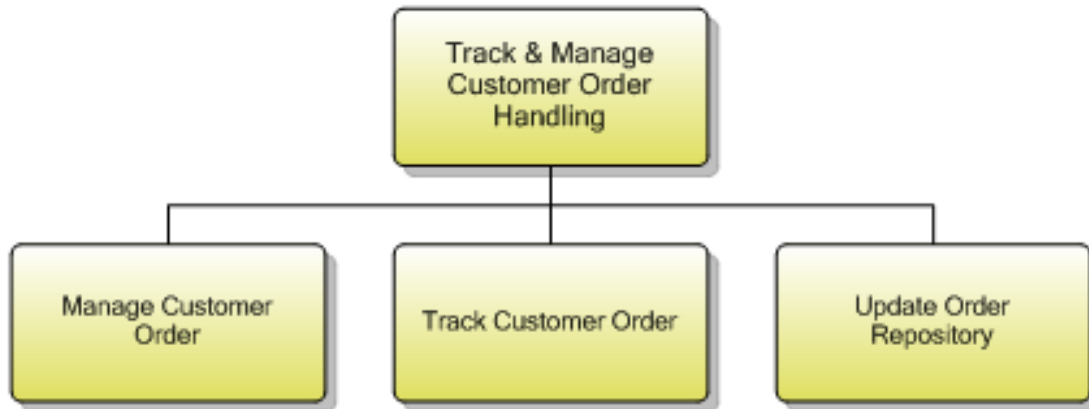## 1.3.3.3 Track & Manage Customer Order Handling

Figure 3 1.3.3.4 Track & Manage Customer Order Handling decomposition

Process Identifier: 1.3.3.3

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;
• Canceling 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 other parties. In these cases, the Track & Manage Customer Order Handling process is responsible for initiating requests, through other Party Requisition Management for the delivery by the other Party 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.

Manage Customer Order

Process Identifier: 1.3.3.3.1

Brief Description
Schedule, assign and coordinate customer provisioning related activities. **A**

The Fulfillment Order Management schedules customer orders based on "Required By Date" attribute set at order header and/or order line level.

User's Guide: "Order Header" and "Order Line"

The Fulfillment Order Management generates automatically and dynamically, for each customer order, a corresponding provisioning plan that models all the steps required provisioning the products submitted through the order lines.

The Fulfillment Order Management AOPD component decomposes each order line into a set of provisioning plan items based on the product specification defined in the Fulfillment Catalog. The plan items are organized into a workflow based on the dependencies defined between them. The plan can also be optimized based on rules such as affinity or single use.

Then, the Fulfillment Order Management Orchestrator component coordinates the execution of the plan.

Concepts Guide: "Automated Order Plan Development"

User's Guide: "Time Dependency"/ "Product Specification Field Decomposition" / "Delta Provisioning" / "Product Affinity"

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

The Fulfillment Order Management can automatically request the Fulfillment Provisioning to create and execute service orders upon execution of a plan items.

Concepts Guide: "Fulfillment Order Management and Fulfillment Provisioning Integration"

Concepts Guide: "Order Capture System"

Escalate status of customer orders in accordance with local policy. **A**

The Fulfillment Order Management Jeopardy component permits to detect customer orders in jeopardy condition and notify operators or external system.

Concepts Guide: "Jeopardy Management"

Admin Guide: "Jeopardy Management System"

User's Guide: "Jeopardy Management System" / "Jeopardy Management"

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

A customer order can be enriched with new or modified information before submission in the Fulfillment Order Management using shipped Business Works tooling. The customer order and order line information is passed to the corresponding provisioning plan. The provisioning plan information can then be modified at each steps of its execution using SetPlan or SetPlanItem calls.

An amendment before plan development occurs prior to the creation of a plan within Orchestrator. An amendment after plan development occurs after the creation of a plan within Orchestrator.

User's Guide: "Set Plan" / "Set Plan Item" / "Amend Order"

Concepts and Architecture: "Amend Order Fulfillment"

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

The Fulfillment Order Management provides support for cancelling an in-flight order that is identified by a reference identifier passed as an input parameter. When an order is being cancelled, the initial order is retrieved using provided reference identifier and all its running order lines are cancelled. The Fulfillment Order Management Orchestrator component suspends plan items in execution and applies a rollback if required. Orders can also be canceled with OCS. It is also possible to cancel a group of orders simultaneously using the Bulk Order action.

Concepts and Architecture: "Cancel Order"

User's Guide: "Canceling an Order" / "Canceling an Order in OCS"/" OrderLine Cancellation" / "Entire Order Cancellation"

Admin Guide: "Bulk Order Actions"

If some specific product components are delivered directly by other Parties, initiate requests, through other Party Requisition Management, for the delivery by the other Party of the specific product components. **AM**

This is managed through plan items which implementation can access external system responsible for suppliers/partners and execution can request specific product components delivery.

Concepts and Architecture: "Plan Items"

Extended Description
Not used for this process element

Explanatory
Reserved for future use.

Mandatory
Reserved for future use.

Optional
Reserved for future use.

Interactions
Reserved for future use.

Track Customer Order

Process Identifier: 1.3.3.3.2

Brief Description
Undertake necessary tracking of the execution process. Modify the customer order status. **A**

The Fulfillment Order Management controls the execution of the customer order from its reception to its closure through multiple guided steps including:

- *Reception in OMS component*
- *Evaluate Product Eligibility, Offer Validation, Product Pricing, Product Information, Pricing Information in Offer and Price Engine*
- *Plan generation in AOPD component*
- *Plan execution in Orchestrator component*

Each of these steps can modify the customer order status to reflect execution state. Here are the different customer order states:

- *SUBMITTED*
- *FEASIBILITY*
- *PREQUALIFICATION FAILED*
- *PLAN DEVELOPMENT*
- *EXECUTION*
- *COMPLETED*
- *SUSPENDED*
- *CANCELLED*
- *WITHDRAWN*

The customer order orchestration executes all provisioning activities (called plan items in FOM) following the sequencing and dependencies defined in Fulfillment Catalog for the products being provisioned. It keeps track of status and manages exceptions.

Concepts and Architecture: "Order"

Concepts and Architecture: "Standard Order"

Monitor the jeopardy status of customer orders, escalating customer orders as necessary. **A**

The Fulfillment Order Management Jeopardy component permits to detect customer orders in jeopardy condition and notify operators or external system.

Concepts and Architecture: "Jeopardy Management"

User's Guide: "Jeopardy Management"

Admin Guide: "Jeopardy Management System"

Extended Description
Not used for this process element

Explanatory
Reserved for future use.

Mandatory
Reserved for future use.

Optional
Reserved for future use.

Interactions
Reserved for future use.

Update Order Repository

Process Identifier: 1.3.3.3.3

Brief Description
To be added

Extended Description
Not used for this process element

Explanatory
Update repository at each level in order handling. The state of order will be changed at each level according to work flow:
- All those issued customer order which are not preauthorized are set in 'pending' state
- Validate order will passed to 'acknowledged' state (if invalid, order gets 'rejected')
- Feasible order (completing the impact analysis) will be 'committed' in case order is not 'cancelled' (leads to cancelled state) (if infeasible , order gets 'rejected')
- As the order progress for completion will set to 'completed' (in case not cancelled)
- The 3 terminal states: completed, cancelled and rejected will finally leads to 'closed customer order' **A**

Orchestrator uses the OMS database to store the state changes for each entity (order, order line, plan, plan item, order amendment). The data for supporting the other features such as clustering, member failover, and recovery is also maintained in the OMS database.

User's Guide: "Backing Store"

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

Optional
Not used for this process element

Interactions
This process will directly interact with the repository, in order to update the order state/status information.

1.3.3.4 Complete Customer Order

Process Identifier: 1.3.3.4

Brief Description
Manage customer information and interactions after customer contracts or associated service orders have been finalized and during the order completion phase. **AM**

TIBCO Fulfillment Subscriber Inventory maintains a current image of customer products at any given point in time that is capable of supporting fast concurrent read or write access while ensuring data consistency. FSI is used to implement CRUD operations for data management on both party and item.

The Fulfillment Order Management can also access a different customer inventory systems to get and set customer data before entering the solution by developing custom code using TIBCO BusinessWorks product and/or by implementing the logic into Process Components and have them executed as part of the order plan. This can be done by defining a customer inventory product in the catalog and include this product in the composition of official product offering. During order plan generation, plan items for customer inventory action will be added to the plan. The sequencing of these plan items can be adjusted to occur before and/or after specific product provisioning activities.

Moreover, the Fulfillment Order Management generates events to the TIBCO EMS bus upon state changes which can be subscribed by custom component that can then execute necessary logic to manage customer information.

The FOM component Order Capture System is a web application component to create, manage, and submit TIBCO Fulfillment Orchestration orders based on what a subscriber already has.

FOM Concepts Guide: "TIBCO Fulfillment Orchestration Components" / "Architecture"/ "Order Capture System"

FSI User's Guide: "Uses of Fulfillment Subscriber Inventory"

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.

To construct an order, OCS requests information from the following systems:

- TIBCO Fulfillment Catalog, which provides product definitions for subscribers.

- A subscriber inventory, which provides subscriber details (such as names, addresses, IDs, and segments)

- TIBCO Fulfillment Subscriber Inventory, which provides information about the subscribers' provisioned products.

- Offer and price engine (OPE), which provides the eligible products for a specific subscriber, validates the order, and provides the price of what is provisioned.

OCS retrieves subscriber information from a Customer Relationship Management system (CRM). The configuration with a CRM is done using the WSDL.

FOM Web Services Guide: "CRM Configuration"

Explanatory
Reserved for future use.

Mandatory
Reserved for future use.

Optional
Reserved for future use.

Interactions
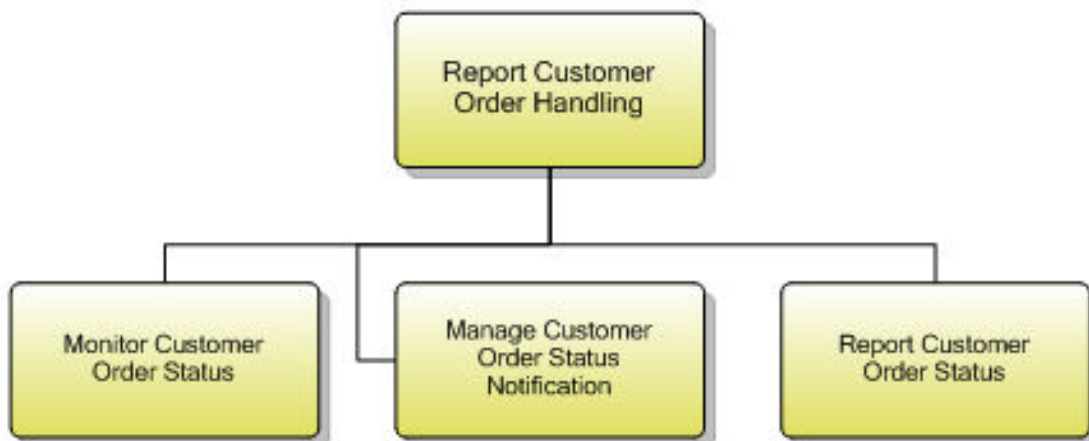Reserved for future use.

1.3.3.6 Report Customer Order Handling

Figure 4 1.3.3.7 Report Customer Order Handling decomposition

Process Identifier: 1.3.3.6

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.

Monitor Customer Order Status

Process Identifier: 1.3.3.6.1

Brief Description

<mark>Continuously monitor the status of customer orders. **A**</mark>

The Fulfillment Order Management controls the execution of the customer order from its reception to its closure through multiple guided steps including:

- *Reception in OMS component*
- *Evaluate Product Eligibility, Offer Validation, Product Pricing, Product Information, Pricing Information in Offer and Price Engine*
- *Plan generation in AOPD component*
- *Plan execution in Orchestrator component*

Each of these steps can modify the customer order status to reflect execution state. Here are the different customer order states:

- *SUBMITTED*
- *FEASIBILITY*
- *PREQUALIFICATION FAILED*

- *PLAN DEVELOPMENT*
- *EXECUTION*
- *COMPLETED*
- *SUSPENDED*
- *CANCELLED*
- *WITHDRAWN*

The customer order orchestration executes all provisioning activities (called plan items in FOM) following the sequencing and dependencies defined in Fulfillment Catalog for the products being provisioned. It keeps track of status and manages exceptions.

Concepts and Architecture: "Order"

Concepts and Architecture: "Standard Order"

Extended Description
Not used for this process element

Explanatory
Reserved for future use.

Mandatory
Reserved for future use.

Optional
Reserved for future use.

Interactions
Reserved for future use.

Manage Customer Order Status Notification

Process Identifier: 1.3.3.6.2

Brief Description
Manage notifications to processes and other parties registered to receive notifications of any status changes. **A**

The Fulfillment Order management integrates with TIBCO JMS bus and publishes all its notifications to a JMS topic. External processes can subscribe to these topics to receive order status change notifications. Order notifications can be seen on the OMS Orders page.

Concepts Guide: "Batch Notification and Messages"

FOM User's Guide: "Batch Notification" / "Viewing Order Information"

Extended Description

Not used for this process element

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.

Report Customer Order Status

Process Identifier: 1.3.3.6.3

Brief Description

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, including specific reports required by specific customers. **A**

The Fulfillment Order Management OMS component persists in database any customer order modifications and permits to visualize using a graphical interface all the details of execution of a customer order including status, data, plan via a Gantt chart and execution logs.

The Fulfillment Order Management OMS component also provides a dashboard that displays set of counters that reflect solution activity such as number of customer orders per status and per period of time but also order in special conditions such as jeopardy or amendment.

Including specific reports required by specific customers. **M**

There is no capability to produce specific reports by specific customers.
The Fulfillment Order Management OMS does not provide a report document generator but any 3rd party report generators such as TIBCO Spotfire can access the OMS database to produce documents.

FOM User's Guide: "GANTT Chart" / "GANTT Chart Details"

Extended Description
Not used for this process element

Explanatory
Reserved for future use.

Mandatory
Reserved for future use.

Optional
Reserved for future use.

Interactions
Reserved for future use.

1.3.3.7 Close Customer Order

Process Identifier: 1.3.3.7

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. **A**

The Fulfillment Order Management OMS ends customer order execution when after completion of all the processing steps and execution of all provisioning activities defined in corresponding generated plan meaning the status of the customer order is COMPLETE.

FOM Concepts Guide: "Orchestrator" / "Order"

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. **A**

See Brief Description

Explanatory

Reserved for future use.

Mandatory

Reserved for future use.

Optional

Reserved for future use.

Interactions

Reserved for future use.