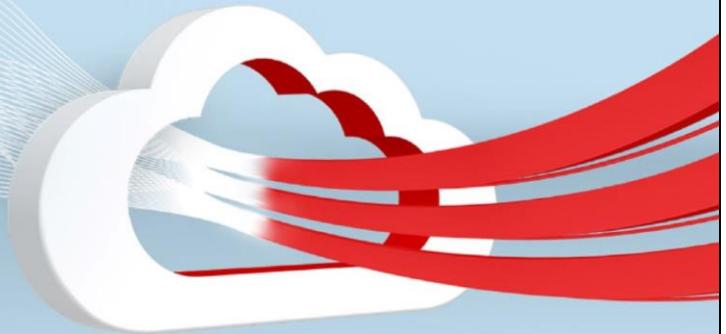


1



Course Introduction

Part 1: Introduction

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture and Demo
	NA	Practice
	15 minutes	Total

Course Objectives

After you complete this course, you should be able to:

- Explain, at a basic level, how to set up the products that make up the order management and fulfillment process.
- Demonstrate, at a high level, how to create an order, schedule it, fulfill it, and ship it.



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In this course, you'll learn how to implement the Oracle applications that enable the order management and fulfillment flow. While this course is intended for implementers, you'll learn some end user order management and fulfillment tasks, so that you can understand the implications of your implementation decisions.

Course Outline

- Part 1: Introduction
 - Lesson 1: Course Introduction
 - Lesson 2: Oracle Order-to-Cash Cloud Overview
- Part 2: Capturing Orders
 - Lesson 3: Importing Orders
 - Lesson 4: Transforming Orders
 - Lesson 5: Creating and Configuring Orders
 - Lesson 6: Pricing Orders: Pricing Strategies
 - Lesson 7: Pricing Orders: Price Lists
 - Lesson 8: Pricing Orders: Discount Lists
 - Lesson 9: Pricing Orders: Shipping Charge Lists
 - Lesson 10: Pricing Orders: Guidelines



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Course Outline

- Part 3: Submitting Orders
 - Lesson 11: Submitting Orders
 - Lesson 12: Extending Order Management
 - Lesson 13: Managing Approvals
 - Lesson 14: Managing Processing Constraints
- Part 4: Fulfilling Orders
 - Lesson 15: Assigning Orchestration Processes
 - Lesson 16: Defining Orchestration Processes
 - Lesson 17: Managing Statuses
 - Lesson 18: Planning Orchestration Processes
 - Lesson 19: Deploying Orchestration Processes
 - Lesson 20: Managing Jeopardy
 - Lesson 21: Promising Orders: Introduction and Overview



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Course Outline

- Lesson 22: Promising Orders: Rules
- Lesson 23: Promising Orders: Key Functionality
- Lesson 24: Promising Orders: Administration and Data Collection
- Lesson 25: Shipping Orders: Overview
- Lesson 26: Shipping Orders: Basic Setup
- Lesson 27: Shipping Orders: Manage Pick Waves
- Lesson 28: Shipping Orders: Confirm Picks
- Lesson 29: Shipping Orders: Confirm Shipment
- Part 5: Revising Orders
 - Lesson 30: Setting Up Change Order Processing
- Part 6: Managing Holds on Order Processing
 - Lesson 31: Managing Holds



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Course Outline

- Part 7: Integrating with External Applications
 - Lesson 32: Understanding External Integration
- Part 8: Conclusion
 - Lesson 33: Conclusion



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Instructional Approach

In each lesson, your instructor will present important concepts related to the functional setup or functionality of the Oracle Cloud Order-to-Cash.

You might also:

- Complete a portion of the setup in the application.
- Discuss key setup decisions and best practices.



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Intended Audience



This course is intended for:

- Job roles
 - Functional Implementer of
 - Order Management
 - Order Promising
 - Pricing
 - Shipping
 - Implementation Consultant
- Relevant background and experience: Knowledge of order-to-cash flow
- Existing competencies and knowledge: ERP Cloud applications
- Expectations of the course: Understanding of ERP Cloud Order-to-cash process, and setup of the SCM Cloud products that are part of this flow.
- Experience with ERP Cloud applications: Intermediate - understanding of Cloud applications technology and navigation.

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Prerequisite Courses

Prerequisites

- SCM Foundation course (required)
- Financials Cloud (recommended)



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Documentation Resources

[Oracle Supply Chain Management Cloud documentation](#), available in the Oracle Help Center

- [Getting Started with Your Manufacturing and Supply Chain Materials Management Implementation](#)
- [Implementing Order Management](#)
- [Using Order Management](#)
- [Administering Pricing](#)



[Oracle Supply Chain Management Cloud documentation](#), available in the Oracle Help Center:
<https://docs.oracle.com/en/cloud/saas/supply-chain-management/r13-update18a/books.html>

- Getting Started with Your Manufacturing and Supply Chain Materials Management Implementation: <https://docs.oracle.com/en/cloud/saas/supply-chain-management/r13-update18a/fammi/scm-cloud-getting-started-with-your-manufacturing-and-supply-chain-materials-management-implementation.pdf>
- Implementing Order Management: <http://docs.oracle.com/en/cloud/saas/supply-chain-management/r13-update18a/faiom/scm-cloud-implementing-order-management.pdf>
- Using Order Management: <http://docs.oracle.com/en/cloud/saas/supply-chain-management/r13-update18a/fauom/scm-cloud-using-order-management.pdf>
- Using Order Promising: <http://docs.oracle.com/en/cloud/saas/supply-chain-management/18c/fascp/using-order-promising.pdf>
- Using Shipping: <http://docs.oracle.com/en/cloud/saas/supply-chain-management/18c/famlo/using-shipping.pdf>

Additional Resources

- [Cloud Customer Connect Community](#)
 - [Order Management Forum](#)
 - [Order Management Events](#)
- [Order Management Release Readiness Material](#)
- [White Papers](#)
 - [Oracle Fusion Order Management White Papers](#)

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Cloud Customer Connect (<https://cloudcustomerconnect.oracle.com/pages/home>) is Oracle's online cloud community — specifically designed to promote peer-to-peer collaboration and sharing of best practices, enable members to keep pace with product strategy, and provide a cloud solution feedback channel directly to Oracle development. Within this community, members benefit by leveraging the collective knowledge of Oracle Cloud customers and product experts.

- The Forum (<https://cloudcustomerconnect.oracle.com/resources/58ae2339bb/summary>) enables you to network and collaborate on real-life challenges and solutions with fellow members. Share best practices as you strive to deliver consistent, personalized customer experiences, and connect every customer engagement with your brand.
- The Events (<https://cloudcustomerconnect.oracle.com/resources/4cb7a01b8c/summary>) tab lists upcoming and replays of Supply Chain Management Events

The Order Management Release Readiness Materials

(<https://cloud.oracle.com/saas/readiness?offering=order-management>) allows you to learn about the latest innovations in our Supply Chain Planning products.

White Papers

- Oracle Fusion Order Management:
https://support.oracle.com/epmos/faces/SearchDocDisplay?_adf.ctrl-state=19ylzx4fw1_14&_afrLoop=3620678271846

Customer Connect Training Replays

- Customer Connect Training Replays:
 - [Implementing Order Management Cloud: Tips & Best Practices](#)
 - [Other Order Management Cloud Customer Connect Sessions](#)
 - [Introduction to Pricing Cloud](#)
 - [Other Pricing Cloud Customer Connect Sessions](#)

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Product experts schedule Customer Connect training. These sessions provide more information on topics already discussed in this training or discuss topics relevant to the implementation and use of the product. The replays of these sessions are listed in a single forum post to make them easy to find:

<https://cloudcustomerconnect.oracle.com/resources/4cb7a01b8c/posts?tag=10415> You can also find replays of these sessions from the Events area. In the Find Events box, enter training and Supply Chain Planning and click Find. This filters your results to list only Supply Chain Planning training events.

You can also select one of the available Event Series. The event series filters the events by training and product areas.

Resources for Implementation

For documentation, videos, and additional information, see:

- Oracle Supply Chain Management Cloud documentation, available in the Oracle Help Center

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docs.oracle.com



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To locate the Oracle Supply Chain Management Cloud resources on the Oracle Help Center:

1. Go to the Oracle Help Center at: docs.oracle.com.
2. Click the Cloud icon.
3. On the Cloud Documentation page, click the Applications tab, and then click SCM Core.
4. On the Oracle Supply Chain Management Cloud page, click the Books tab.

2



Overview of Order Management and Fulfillment

Part 1 Introduction

Order Management and Fulfillment Implementation

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Schedule:	Timing	Topic
	45 minutes	Lecture
	NA	Practice
	45 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Explain the business flows that the order management and fulfillment applications enable.
- List the applications that make up the order management and fulfillment flow.
- Explain the front-end and back-end integrations with Oracle Fusion Order Management Cloud Service.

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Topics

- Order Management and Fulfillment Business Flows
- Functional Architecture
- Front-End and Back-End Integrations within Order Management and Fulfillment



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First, let's talk about the business flows that the applications of the order management and fulfillment flow provide. Then, we'll talk about how these flows are enabled.

Order Management and Fulfillment Business Flows

- Physical goods
 - Shipment from a warehouse
 - Dropship
 - Back-to-back
- Non-physical goods (services)
- Returns
- Transfer orders
- Change orders

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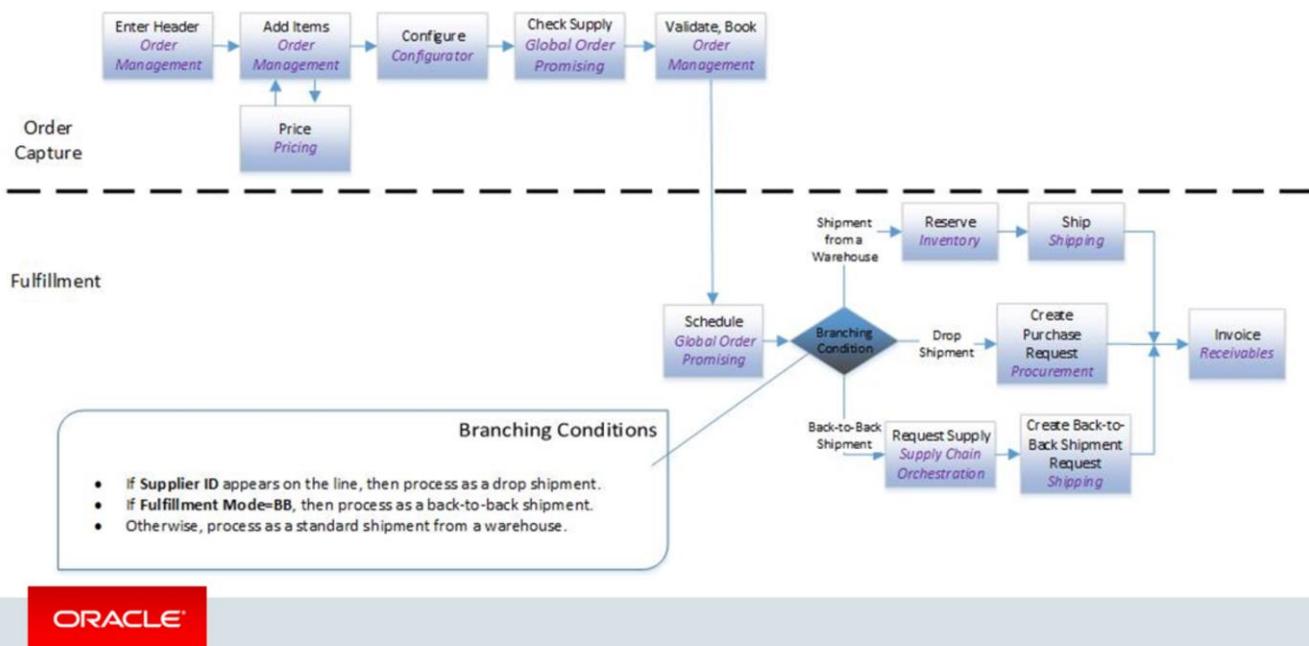
The order management and fulfillment flow is the process that a sales order follows from creation in the Order Management application, or import from an integrated application, to fulfillment and transmission of the invoice to the customer.

This overview lesson examines these order variations:

- **Order for physical goods:** What does the flow look like for a physical item that's shipped from the company warehouse? We discuss dropship and back-to-back flows only briefly because the Advanced Supply Chain and Fulfillment Techniques course explains them in detail.
- **Order for nonphysical goods:** Flow that's used when you place an order for something that isn't shipped, such as a Cloud subscription or a warranty.
- **Return order:** What are the requirements for a return order? How do I create a return order?
- **Transfer order:** A transfer order is an order to transfer goods within the same company. Transfer orders don't originate in Order Management. They originate in Supply Chain Orchestration and are imported into Order Management, where you can monitor and manage them. The Advanced Supply Chain and Fulfillment Techniques course covers transfer orders in detail.
- **Change order:** Change orders are covered in their own lesson because of the controls and constraints that you can define to control the different types of changes to in-progress orders. For now, we review only the flow.

This course discusses basic default functionality. You can extend your implementation. We discuss extensions later in this course.

Business Flow: Physical Goods



This chart shows the steps of a business flow for a new order of physical, shippable goods. This single process shows a standard shipment from a warehouse, a drop shipment, and back-to-back fulfillment.

The order header captures information such as customer and requested fulfillment date.

After you enter information in the header, you add items to the order. In this case, the item is shippable. You can configure certain items. You can also add coverage to a standard item or to a configured item.

The item is priced based on rules defined for the price list. You can override prices by applying a manual adjustment. You can set up a one-time charge or a recurring one.

After you add the item, Oracle Fusion Global Order Promising verifies the supply or availability of it. Then you validate and submit your order for fulfillment. If you set up credit check to run at order submission, then an automatic hold temporarily stops the process so that Oracle Fusion Credit Management can check the credit. For information on setting up credit check, see docs.oracle.com and SCM – Implementing Credit Check in Order Management Cloud, <http://ora-fusion-apps.custhelp.com/euf/assets/fusion/videos/replays/253419/video/presentation.html>

The ordered item is scheduled and reserved. Then, you must pick release and ship confirm the order. After the shipment is confirmed, you can invoice the customer according to contractual terms.

The process on this slide, DOO_OrderFulfillmentGenericProcess, is available by default. You can use it as is, or modify it to suit your own business needs. We discuss orchestration processes later in this course.

These lists show the steps of the processes that appear in the slide and the application where each step is performed:

Shipment from a Warehouse

1. Enter Header: Order Management
2. Add Items: Order Management
3. Configure: Oracle Fusion Configurator Cloud Service
4. Price: Oracle Fusion Pricing
5. Check Supply: Global Order Promising
6. Validate, Book: Order Management
7. Schedule: Global Order Promising
8. Branching condition: If the line is shippable, reservable
9. Reserve: Oracle Fusion Inventory Management
10. Ship: Oracle Fusion Shipping
11. Invoice: Oracle Fusion Receivables

Drop Shipment

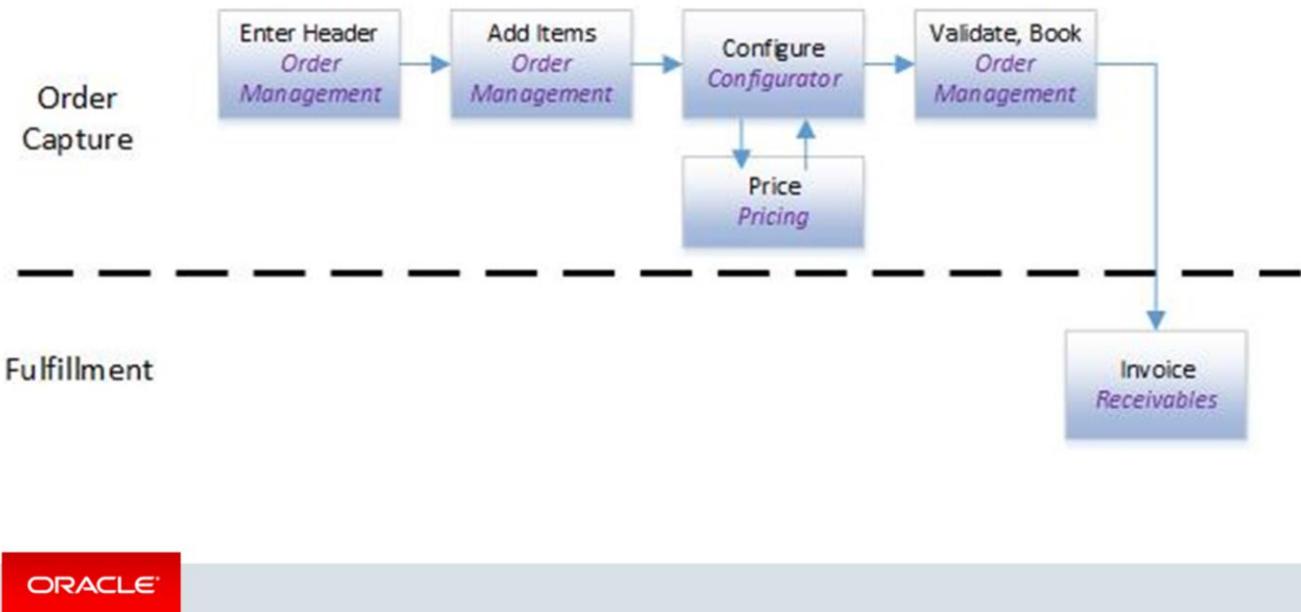
1. Enter Header: Order Management
2. Add Items: Order Management
3. Configure: Configurator
4. Price: Pricing
5. Check Supply: Global Order Promising
6. Validate, Book: Order Management
7. Schedule: Global Order Promising
8. Branching condition: If a supplier ID appears on the line, then process as a drop shipment.
9. Create Purchase Request: Oracle Fusion Procurement
10. Invoice: Receivables

Back-to-Back Shipment

1. Enter Header: Order Management
2. Add Items: Order Management
3. Configure: Configurator
4. Price: Pricing
5. Check Supply: Global Order Promising
6. Validate, Book: Order Management
7. Schedule: Inventory Management
8. Branching condition: If fulfillment mode=BB, then process as a back-to-back shipment.
9. Request Supply: Supply Chain Orchestration
10. Create Back-to-Back Shipment Request: Shipping

11. Invoice: Receivables

Business Flow: Nonphysical Goods



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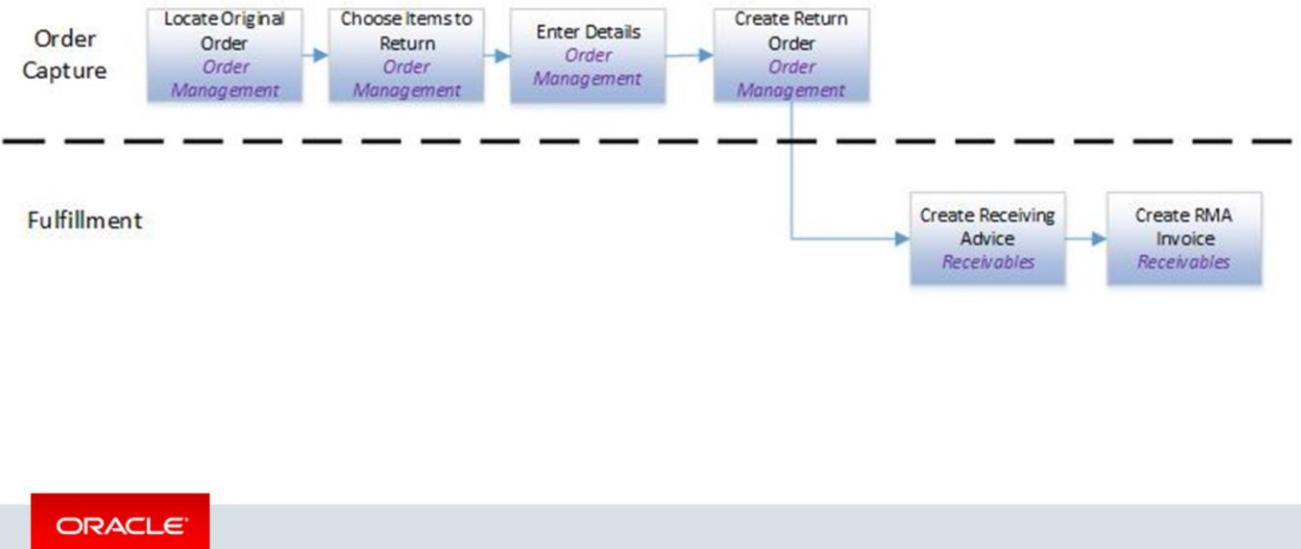
This chart shows a flow that an order might follow for goods that are nonshippable. This flow is for any intangible item, such as a software license. Notice that the flow doesn't contain picking or shipping steps. After you submit the order, the bill-only process is initiated and you can generate an invoice.

The process on this slide, DOO_BillOnlyGenericProcess, is available by default. You can use it as is, or modify it to suit your own business needs.

This list shows the steps of the processes that appear in the slide and the application where each step is performed:

1. Enter header: Order Management
2. Add items: Order Management
3. Configure and price the item: Configurator, Pricing
4. Validate, book: Order Management
5. Invoice: Receivables

Business Flow: Return Order



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This chart shows the flow of a return. A return isn't technically a type of order. You can add a return line to an order that has items that are being ordered. The process on this slide, DOO_ReturnOrderProcess, is available by default. You can use it as is, or change it to suit your own business needs.

Returning an Item With a Reference Order

You can return an item only if the fulfillment line corresponding to the item on the original order is closed. Search for the closed order, and then select the order line that has the item that you want to return. Enter the required details, such as the quantity that you are returning, and reason for return. Then, finish creating an order with the item that you're returning. You can apply a manual price adjustment to return lines.

You can return just the coverage on a covered item, or both the covered item and its coverage. If you return a covered item that has an associated coverage, then the coverage is returned automatically. The associated coverages can be across multiple orders. The coverage lines must be in closed status.

Make sure that the item is returned before you issue a credit. The Confirm Receipt step is optional. You don't need this step for a credit to be issued to the customer.

Returning an Item Without a Reference Order

You can return standard, configured, and coverage items without referring to the original sales order number. You fill in attributes in the order header, and then add the unreferenced return lines. You can apply a manual price adjustment as an override on return line.

Pricing calculates:

- Price as it normally calculates a sales order line, and then adds a negative sign.
- Price according to pricing setup that exists on return date or cancel date.
- One-time charge or recurring charge.
- Pricing adjustment and discount.

Note: Not all values from the original order default onto the return order. However, you can use the extension framework to enable this behavior. For more detail, see "Troubleshooting Issues Related to Send Receipt Confirmation ESS job and RMA Receipts" (Doc ID 2260310.1)

Business Flow: Return Order (continued)

If Pricing can't determine the charge, then it applies a zero charge. Pricing determines whether the charge is refundable.

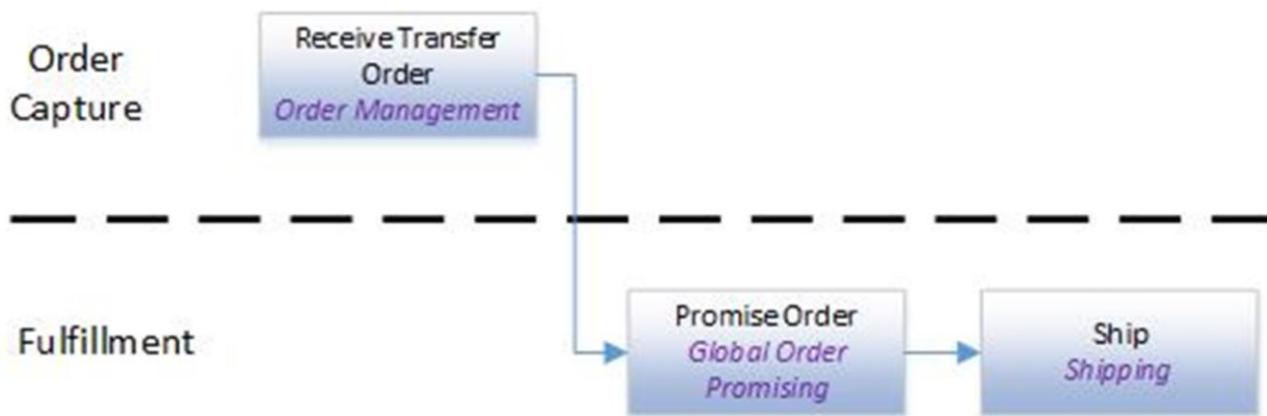
Some setup is required to enable this functionality. See the product documentation in Oracle Help Center for details.

This list shows the steps of the processes that appear in the slide and the application where each step is performed:

1. Locate original order: Order Management
2. Choose items to return: Order Management
3. Enter Details: Order Management
4. Create Return Order: Order Management
5. Create Receiving Advice: Receivables
6. Create RMA Invoice: Receivables

Note: Not all values from the original order default onto the return order. However, you can use the extension framework to enable this behavior. For more detail, see "Troubleshooting Issues Related to Send Receipt Confirmation ESS job and RMA Receipts" (Doc ID 2260310.1)

Business Flow: Transfer Order



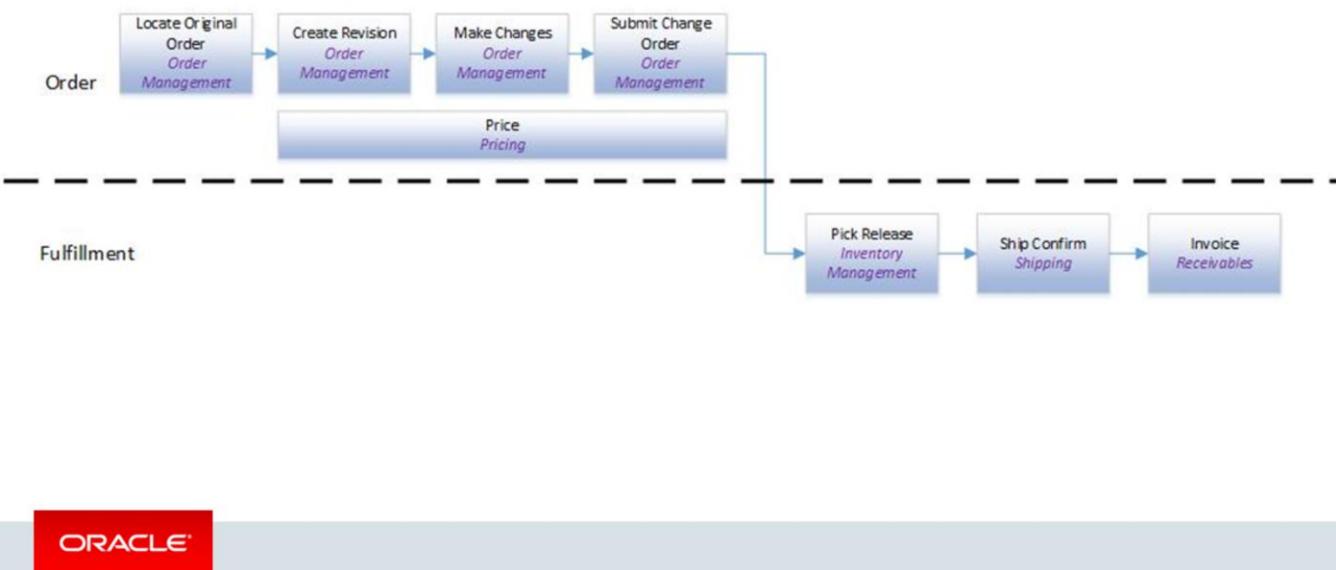
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A transfer order is a sales order that you use to transfer an item from one part of your organization to another part of the same organization. Example: You would use a transfer order to transfer an item from Computer Service and Rentals - Warehouse A, to Computer Service and Rentals - Warehouse B. Similarly, you would use a transfer order to transfer an item from Computer Service and Rentals - Korea Manufacturing, to Computer Service and Rentals - USA Distribution Center.

When source doc type is transfer order (TO), Inventory Management sends the destination org to Order Management. The destination org is stored in the IMT entity. Then IMT is sent to Global Order Promising and Shipping. You can't make changes to this attribute in Order Management. You use Order Management just to keep track of your transfer order.

We don't go into detail about transfer orders in this course because the Advanced Supply Chain and Fulfillment Techniques course explains them fully.

Business Flow: Change Order



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This flow chart shows a change order for a submitted order. You may also know this action as revising an order or creating an order revision.

Locate the original order and create a revision of the order, so that you can edit the order. Depending on the rules setup for revisions, you can make changes to the order even after you create the revision. You can make changes such as cancelling existing lines, adding new order lines, and editing configurations.

The rules determine whether you can make changes. For example, if a customer orders an item with a quantity of 10, and 7 of the 10 already were shipped, then you can't make changes to the line with the shipped quantity of 7. You can cancel only the line with the backordered quantity of 3.

After you make changes to the order, you submit it. The rest of the flow is similar to the flow for a physical good that's shipped from your warehouse.

Changes to an order are processed automatically. The application's change management mechanism automatically adjusts the orchestration process that's associated with the changed order. You can configure the application to cancel steps of an orchestration process and to redo them.

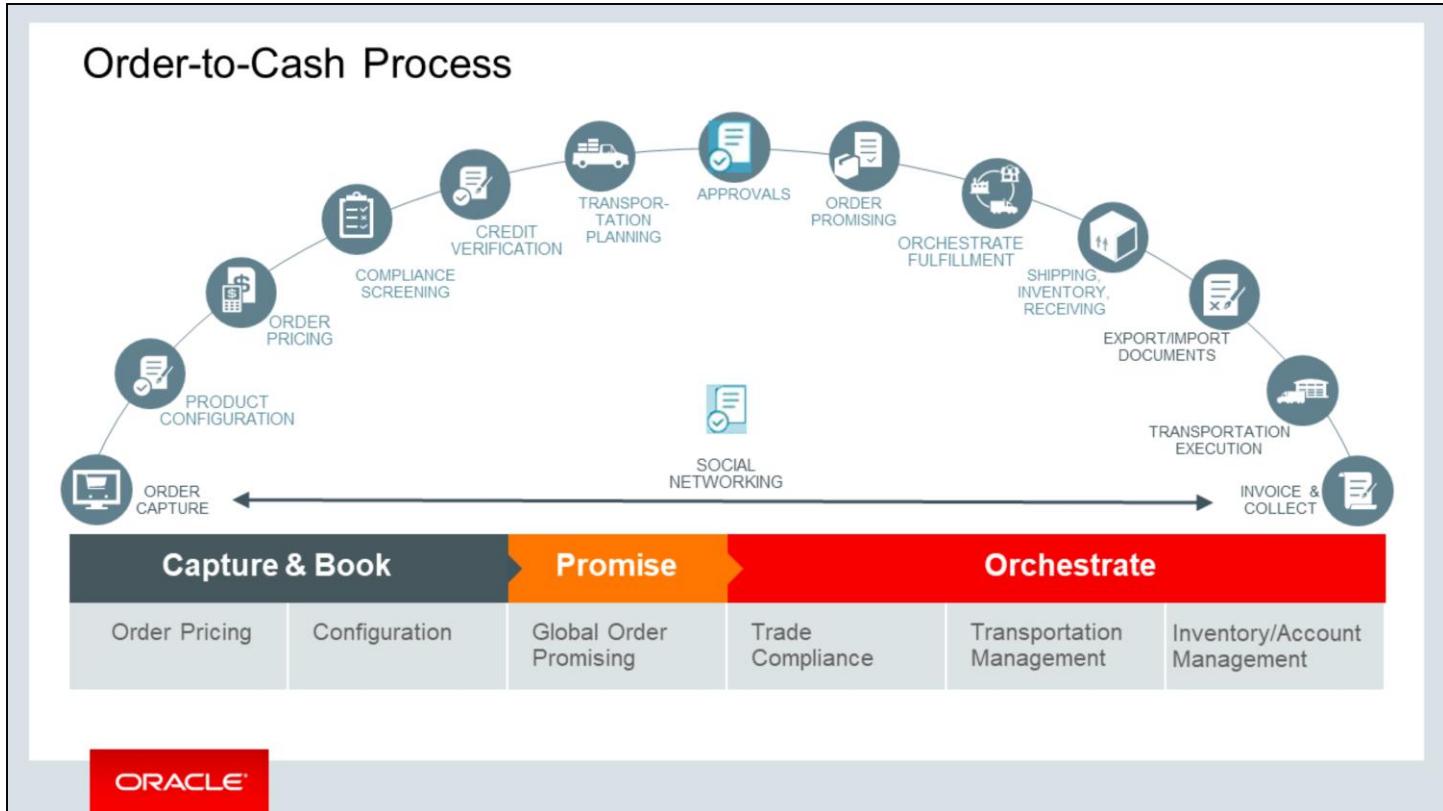
Topics

- Order Management and Fulfillment Business Flows
- Functional Architecture
- Front-End and Back-End Integrations within Order Management and Fulfillment



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Order-to-Cash Process



The above graphic shows the full breadth of functionality provided by the order-to-cash flow, which the order management and fulfillment process is a part of. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transportation planning, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

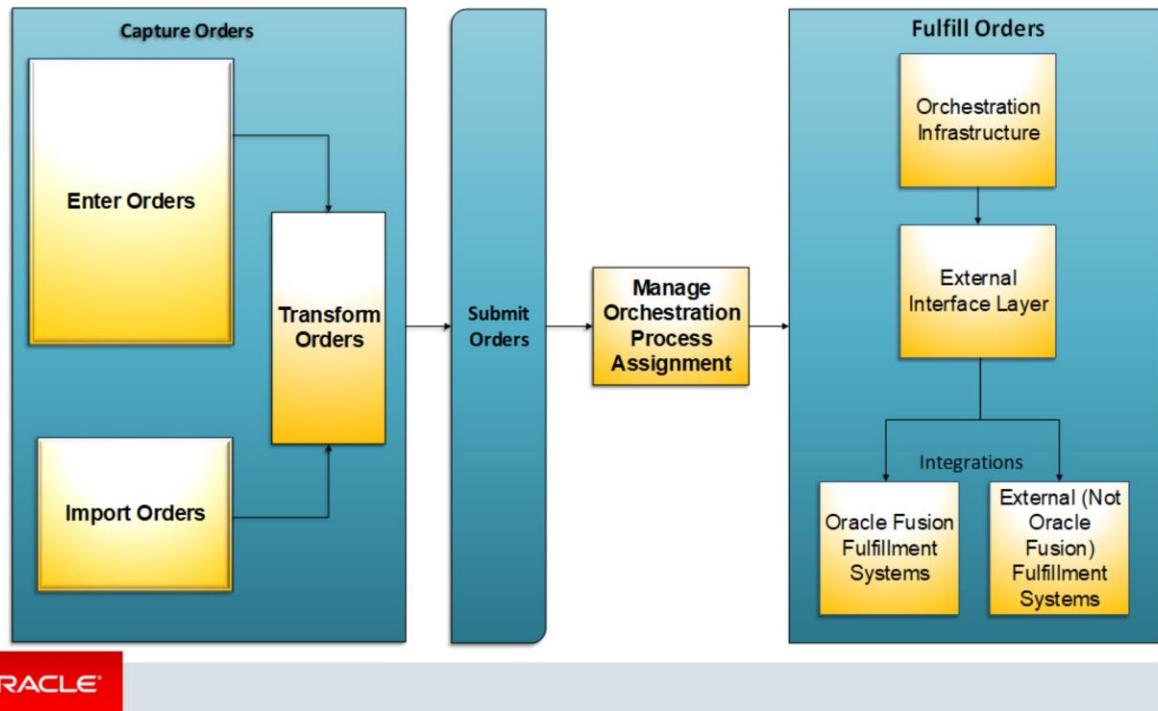
In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this course, we focus on:

- Order Management: Order capture, constraints, holds, approvals, pause, jeopardy
- Configurator: Product configuration
- Pricing: Order pricing, manual adjustments
- Inventory Management: Picking
- Shipping: Shipping, trade compliance, transportation management

This course teaches you how to implement these applications to enable the flows discussed earlier in this lesson.

Order Management and Fulfillment Flow



This is a high-level view of the order management and fulfillment flow, from capture of the sales order to fulfillment.

The flow chart shows order capture, which you do either by importing orders or entering them. Then Order Management transforms the orders. After that, you submit the orders. During order submission, some actions, such as validations, occur automatically. Then an orchestration process is instantiated and assigned to the fulfillment line. The next high-level step, Fulfill Orders, includes orchestration, the external interface layer, and outbound integrations. Some fulfillment may take place in Oracle Fusion and external integrated fulfillment systems.

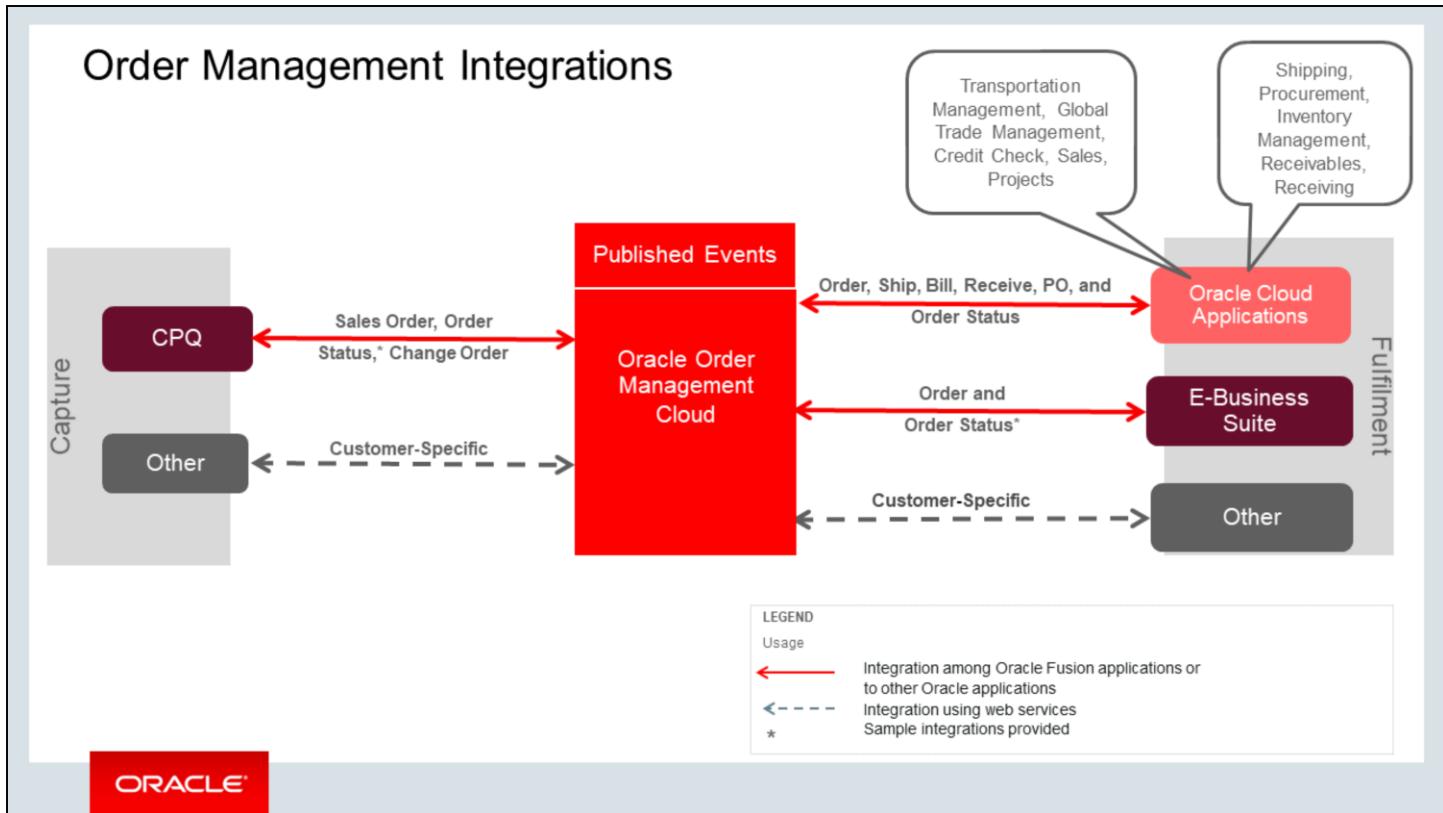
Topics

- Order Management and Fulfillment Business Flows
- Functional Architecture
- Front-End and Back-End Integrations within Order Management and Fulfillment



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Order Management Integrations

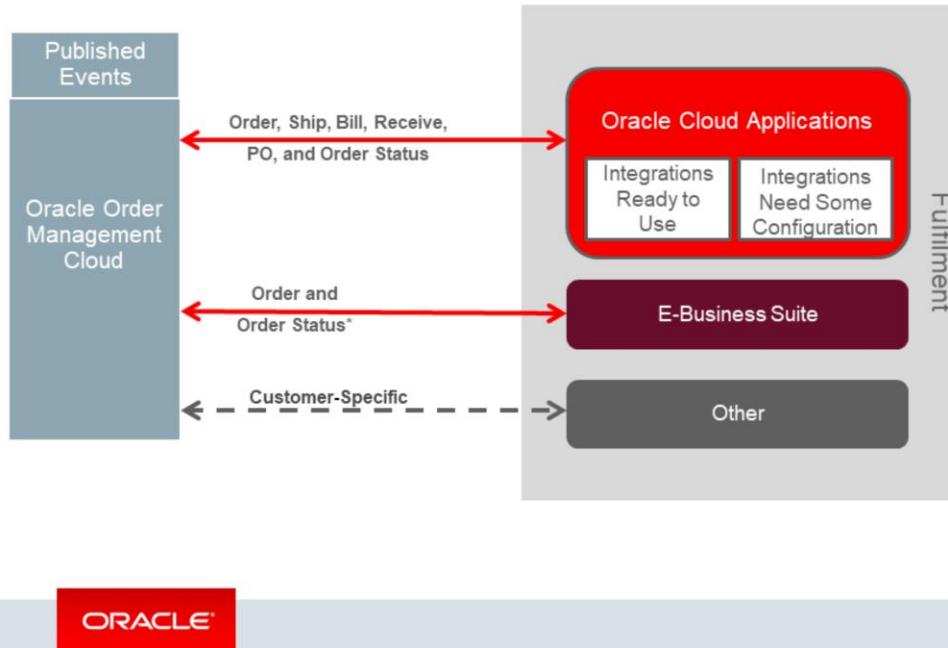


These integrations are supported:

- Integrations between Oracle Fusion applications. These applications are integrated across a process. We'll take a closer look at these integrations in the next slide.
- Integrations with other Oracle applications that aren't part of Oracle Supply Chain Management Cloud, for example, Oracle Configure, Price, and Quote, Oracle Commerce Cloud Service, Oracle E-Business Suite. These integrations are provided as working sample integrations.
- Web services you can use to integrate with external order capture and fulfillment systems.
- Published events work for certain types of integrations only.

The diagram shows the capture flows and fulfillment flows that Order Management enables.

Integrations with Oracle Cloud Applications



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Let's take a closer look at the integrations with Oracle Cloud Applications. We can classify them into these categories:

- **Ready-to-Use Integrations:** Oracle Cloud Applications that have preconfigured integrations with Order Management. Integrations with these applications are ready to use:
 - Shipping
 - Procurement
 - Inventory Management
 - Receivables
 - Receiving
- **Integrations That Require Some Configuration:** Oracle Cloud Applications that require additional implementation to enable the integration. These applications enable you to plan and monitor shipping, screen your orders for trade compliance, and check whether a customer has sufficient credit to cover the order. Integrations with these applications require additional configuration:
 - Oracle Transportation Management Cloud Service
 - Oracle Global Trade Management Cloud Service
 - Credit check
 - Asset Management
 - Sales
 - Projects

For more information, see these help topics:

- "Integrate Order Management with Global Trade Management"
- "Setting Up Orchestration Processes to Perform Transportation Management Tasks: Explained"

Business Case: End-to-End Flow

Vision Corporation is a high-tech manufacturer that captures orders for standard items, kits, and configured models from multiple channels. Some items are manufactured in-house and shipped from its facilities. Vision also fulfills orders using drop ship and back-to-back fulfillment. After the orders are fulfilled, the invoices are sent to the customer.

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Throughout this course, we demonstrate functionality using a business case. Each demo and practice has this information. However, this slide discusses the generalities of the examples we use.

Some orders are fulfilled directly by Vision's supplier using drop ship fulfillment. In certain cases, Vision procures items from its supplier specifically against an order and ships from its own facility using back-to-back fulfillment.

Vision Corporation receives and processes change orders from its customers, and, in some cases, customers return the items that were shipped to them previously.

A key business driver for Vision is improving customer satisfaction by processing orders efficiently and meeting delivery promises. An important key requirement is for Vision order managers to get visibility into possible order fulfillment exceptions, so that they can take steps to avoid problems before the problems impact promise dates.

After evaluating many vendors, Vision Corporation decides to implement the Oracle Cloud order-to-cash solution.

This course focuses on key solution components to implement the Cloud order-to-cash solution for Vision Corporation.

Summary

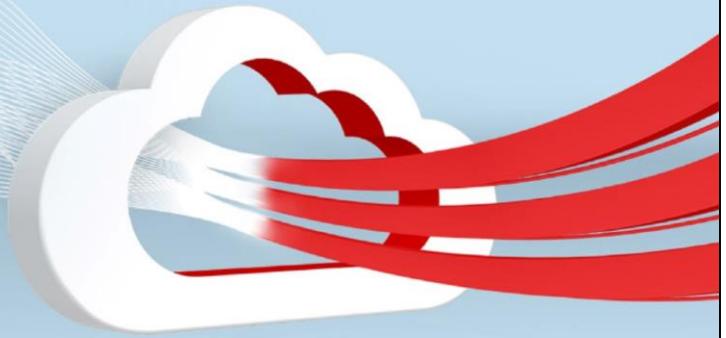
In this lesson, you should have learned how to:

- Explain the key features of Order Management
- Identify the interactions between Order Management, Pricing, Configurator, Shipping, Global Order Promising, and Receivables
- Explain the front-end and back-end integrations with Order Management



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3



Importing Orders

- Part 2: Capturing Orders: Import and Transformation
- Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	45 minutes	Lecture
	45 minutes	Practices
	90 minutes	Total

Learning Objectives

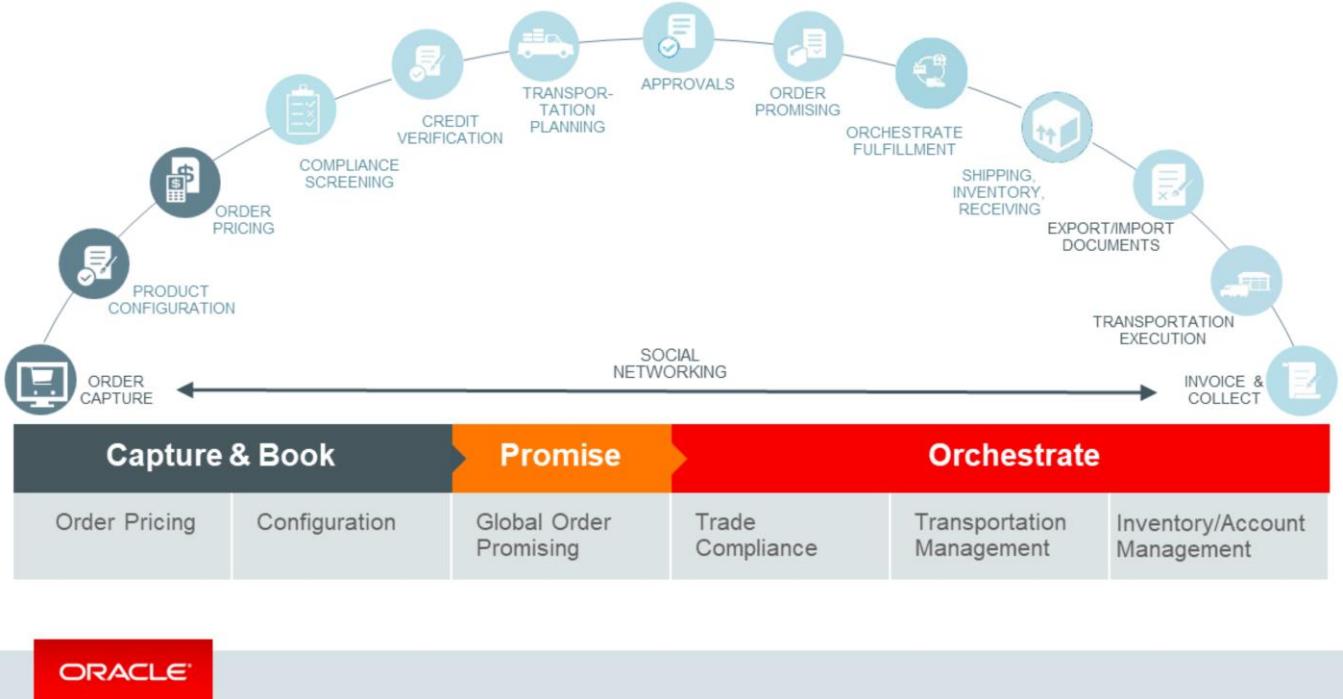


After you complete this lesson, you should be able to:

- Explain how orders are imported
- Explain direct web service integration
- Explain file-based data import
- Explain business-to-business messaging
- Explain how to set up sequences of sales order numbers

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Order-to-Cash Process

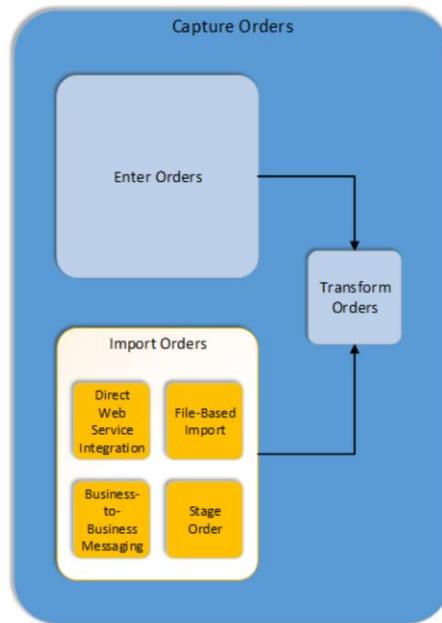


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transportation planning, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on order import.

Importing Orders



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This chart shows where in the flow you import orders. Import is one way to capture orders. Here are some ways to import orders:

- Direct web service integration
- File-based data import
- Business-to-business messaging
- Stage order

After you import orders they are transformed automatically.

Topics

- Order Import Methods
- Order Import Flow
- Important Considerations of Order Import
- Sequence of Sales Order Numbers



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Import Methods

You can import any kind of order that was created in a channel system using the following methods:

- Direct web service integration
- File-based data import
- Application Development Framework (ADF) web service
- Business-to-business messaging or Electronic Data Interchange (EDI) Messaging framework



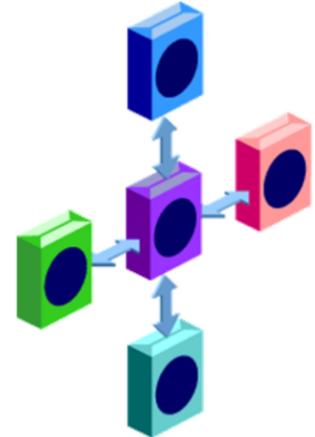
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File-based data import involves file upload and transfer of data to interface tables.

Direct Web Service Integration

You can import your source orders using:

- ADF Web service
- SOA Web service

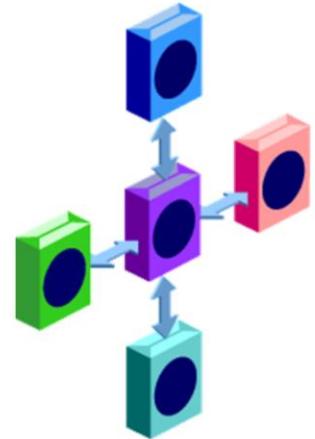


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You can use ADF or SOA web services to import source orders.

Direct Web Service Integration

- Oracle supplies the connector service for use of Configure, Price, Quote (CPQ) as a channel system.
- You create the connector service to integrate the channel system with Oracle Fusion Order Management.



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You must create a connector service to integrate the channel system with Oracle Fusion Order Management.

File-Based Data Import



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You can upload many attributes of the sales order, including project attributes.

The file-based data import process consists of these steps, shown above:

1. Create order file using the provided template.
2. Generate the upload package from the template.
3. Upload the file to the Universal Content Management (UCM) account.
4. Run a scheduled process to transfer file contents to interface tables.
5. Run a scheduled process to transfer data from the interface tables to base tables.
6. Examine the log file to determine success or failure of individual orders and to identify errors.

The template file is available from the file directory on the remote desktop. The template contains guidance for the end-to-end file-based import process. To generate the upload package from the template, use the Generate CSV File button on the first page of the template.

To upload the package generated from the template, select File Import and Export in the Navigator. Create a new upload request. One parameter selects the file to upload, and the other parameter selects the account. For the latter, select scm/sourceSalesorder/import.

The Load Interface File for Import scheduled process transfers order data from the uploaded file to the interface tables. You must specify these parameters: 1) Import Process, select Import Sales Orders, and 2) Data File, select the name of the uploaded file. Note that by choosing the import process, you're provided only with the uploaded files in the appropriate account.

The Import Sales Orders scheduled process transfers data from the interface tables to the base tables. You must specify one of the following parameters: Batch Name, Source System, or Source Order Number. Note that the uploaded file can contain more than one set of orders. This process generates a log file that identifies which orders were imported successfully and the error that prevented the import of orders.

Import of Project Details

The screenshot shows the Oracle Order Management interface. At the top, there's a toolbar with various icons and buttons like 'Select Item', 'Update Lines', 'Add', etc. Below the toolbar is a table header with columns: Duration, Period, Sales Agreement, Sales Agreement Line, Sales Agreement Version, Quantity, UOM, On Hand, Your Price, Amount, Cancellation Effective Date, and Project Details. A single row is selected in the table, showing '1' item: 'Mini Slimline 4000 Tablet, 32 G'. The quantity is set to '12' and unit of measure is 'Ea'. The status is 'In Stock'. The price is listed as 'Sale Price' at '299' and '3,588.00'. A large black arrow points from the 'Project Details' column in the table towards the 'Edit Project Details' dialog box.

Edit Project Details: Line 1

Project Number	PI20040	<input type="button" value=""/>
* Task Number	5.0	<input type="button" value=""/>
* Expenditure Item Date	10/15/19	<input type="button" value=""/>
* Expenditure Type	Material	<input type="button" value=""/>

* Expenditure Organization: Consulting US
Contract Number
Funding Source

OK Remove Project Details Cancel

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As mentioned in the previous slide, you can store project details on sales orders and order lines to reduce order processing time and improve the accuracy of tracking cost, revenue, and profitability throughout the supply chain.

You can create and submit a sales order that includes project details, such as project number, task number, and so on. Create and fulfill sales orders that include project attributes, such as project number, task number, and expenditure organization.

Order Management gets the list of projects defined in Project Management, filters them according to Sales Order Business Unit and Warehouse Business Unit, and then displays them as choices in the Edit Project Details dialog box on the order line.

Capture and display the project attributes through an Order Management extension.

Order Management calls Project Management when the On Start of Submission event occurs. The call validates the changes the order entry specialist made.

Business-to-Business Messaging

One way to import orders is through Oracle Fusion Collaboration Messaging Framework, an application that enables Oracle Applications Cloud to establish business-to-business (B2B) messaging capabilities with trading partners.

Import

1. Use Collaboration Messaging Framework to send sales orders, updates, and cancellations from one trading partner to another.
2. First, set up Collaboration Messaging. Then, import the orders through a scheduled process.
3. Import orders that are already priced by Oracle Fusion Pricing.



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Business-to-business messaging has many uses. Import is just one use.

Note that you can't import returns through the business-to-business messaging framework. The business-to-business messaging framework supports orders priced in the Oracle Cloud system.

In business-to-business messaging, you can import orders that were priced by Oracle Fusion Pricing only.

For more information, see Administering Business-to-Business Order Management: Procedure in Oracle Help Center.

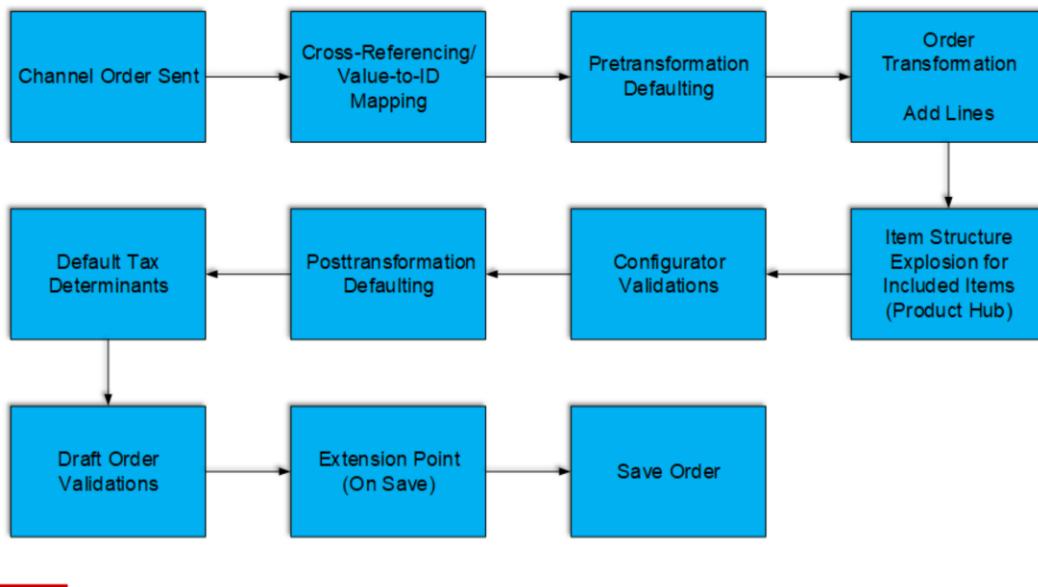
Topics

- Order Import Methods
- Order Import Flow
- Important Considerations of Order Import
- Sequence of Sales Order Numbers



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How Orders Are Imported



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Import Processing

This graphic depicts the order import flow from beginning to end as follows:

- Channel Order Sent
- Cross-Referencing/Value-to-ID Mapping: Item transformation and cross-referencing through access to the Product Model. Cross-reference of customer and master data through access to the Oracle Fusion Trading Community Model and the Order Management and Planning Data Repository.
- Pretransformation Defaulting: Automatically adds specific values to attributes on the order. Example: You want to assign shipment priority based on the customer item.
- Order Transformation – Add Lines: Sales order lines of the order are transformed to fulfillment lines. At this point, an order for a single sales order line, such as for a laptop computer, may be transformed into multiple fulfillment lines for the laptop, AC adapter, and external mouse.
- Item Structure Explosion for Included Items (Product Hub): You can set up some product transformation in the Product Information Management work area, such as included items as structures. (You can import the parent and have the included items added during transformation because they are part of the Product Model structure [bill of materials].)
- Configurator Validations: Configurator validates sales order lines for configured models.
- Posttransformation Defaulting: Automatically adds specific values to attributes on an order that additional lines are added to.
- Default Tax Determinants: The tax determinants, as determined by Pricing, are populated for each line.
- Draft Order Validations: Order Management checks the order to ensure all required data is present.
- Extension Point (On Save): Extension that adds logic for defaulting attributes or for validating a business rule.

How Orders Are Imported (continued)

- Save Order: This is the first time the order is saved during the process.

This process flow applies to the import of standard items. Later in this lesson, we discuss considerations of importing other types of items.

Transformation is explained further in the Transformation lesson. Extensions are covered in the Extending Order Management lesson.

Topics

- Order Import Methods
- Order Import Flow
- Important Considerations of Order Import
- Sequence of Sales Order Numbers



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Additional Considerations for the Import of Coverage and Subscription Lines

- Some special characteristics of the import of coverage and subscription fulfillment lines:
- You can import coverage lines against both standard and configured covered items.
- You can import coverage lines for immediate and delayed coverage.
- Document reference type attribute associates the coverage line with the covered line.
- The import mechanism captures the following key attributes: service duration, duration period, and billing periodicity.
- Validations
 - Restrict ability to save an order
 - Restrict ability to submit an order

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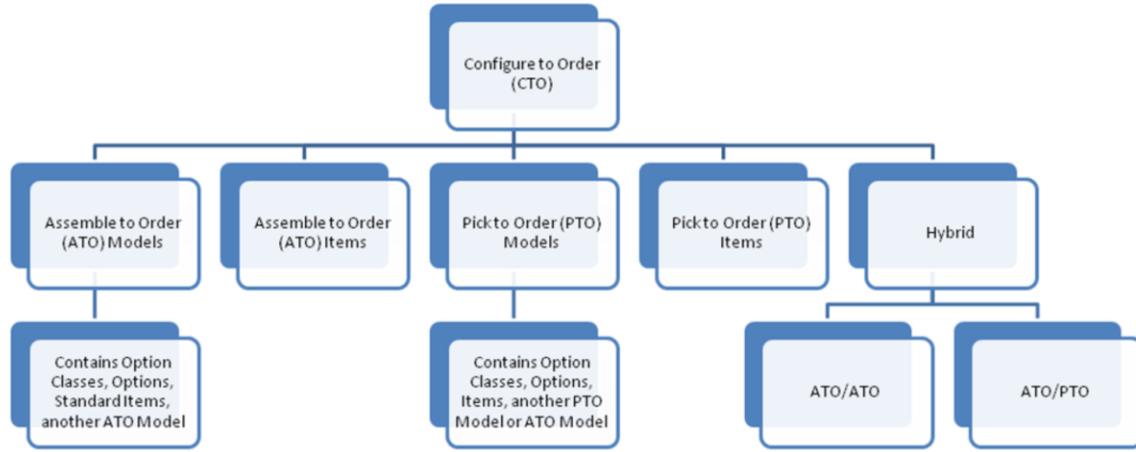
The import of coverage and subscription lines differs in some ways from the import of other types of lines.

You can import service order lines, coverages or subscriptions, from any upstream system to create, modify, cancel and return such service lines.

During import, the application checks whether the orders that are being imported need to be priced:

- If Freeze Price, Freeze Tax, and Freeze Shipping Charges are set to Yes, then the order lines aren't priced in Oracle Fusion Pricing because they were already priced in another application.
- If one or more of the options, Freeze Price, Freeze Tax, and Freeze Shipping Charges, are set to No, then the order lines are priced in Oracle Fusion Pricing.

Import of Coverage Order Line Against Configured Covered Items



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The import of coverages against configured covered items has some considerations:

If the source order is prepriced by an upstream system, then the input order payload must include coverage for each configure option (for example, option class or option item) that's enabled for contract coverage.

If the order isn't priced by an upstream system, then the payload needs to contain only the root coverage, that is, the coverage line for the root model of the covered item. The cascading logic ensures that Order Management creates child coverage lines for each configure option that's enabled for contract coverage.

The above graphic shows the different types of configure-to-order types.

Modifications and Cancellations of Coverages Through Order Import

You can modify and cancel coverage lines against standard and configured items through order import.

- A coverage line is automatically canceled or modified if its associated covered line is canceled or modified.
- A coverage line can be modified or canceled without having to modify or cancel its associated covered line.



Examples of automatic modification or cancellation of coverage line:

- The quantity and UOM of a covered item line is changed. Therefore, the quantity and UOM of the associated coverage item line is also changed.
- A covered line is canceled, therefore, the coverage for it's no longer needed.

Import of Coverage Return Lines

- A customer can terminate a coverage (return a coverage item) on its own or along with an associated covered item.
 - Manual return
 - Automatic return
- Import of return lines of prepriced items and items priced in Oracle Fusion Pricing
- Document reference types associate the coverage line with the associated covered line:
 - Original_Sales_Order
 - Source_Coverage_Covered_Association



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If a customer wants to terminate a coverage, then the customer returns the coverage item. The customer can return the coverage item on its own. Alternatively, if the customer returns a covered item, then the coverage associated with that item is returned automatically.

For automatic return due to a returned covered item

- If the order was prepriced, then the valid associated coverages also are returned in the import payload.
- If the order was priced by Oracle Fusion Pricing, then the import payload contains the return line for the covered item. Order Management automatically creates the return lines for all the associated valid coverages.

For return of the coverage item only: In this case, the import payload contains only the return lines for the coverage. The coverage line return may be against a prepriced order or one priced by Oracle Fusion Pricing.

The return coverage line contains the following document reference types:

- Original_Sales_Order
- Source_Coverage_Covered_Association: Refers to the original covered item.

Note that you can't import returns through the business-to-business messaging framework. The business-to-business messaging framework supports orders priced in the Oracle Cloud system.

Import of Subscription Lines

A customer can order a subscription by itself or with an associated coverage.



The application characteristics and import considerations when a subscription is a covered item were discussed in previous slides of this lesson.

Topics

- Order Import Methods
- Order Import Flow
- Important Considerations of Order Import
- Sequence of Sales Order Numbers



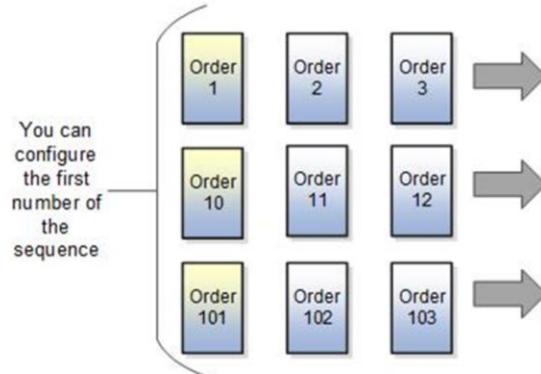
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Sequence of Sales Order Numbers

- You can configure the starting number of your sales order number sequence in Order Management.
- Sales order takes on the number according to your configuration. When?
 - After source orders are imported and transformed into Order Management, the sales order takes on the number according to your configuration
 - When an order entry specialist creates a new order

Some Possible Sales Order Sequences

1, 2, 3...
10, 11, 12...
101, 102, 103...



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After you configure the sales order numbers, each sequence number assigned to a sales order is unique and permanent. Order Management doesn't modify the number or change any order attributes.

Sales orders numbers must be all numeric. You must have a minimum of one number as the sales order number, but there is no maximum. New customers can use 1 as the starting number, if they want.

Sequence of Sales Order Numbers: Setup

Ensure the Retain Sales Order Number profile option is set to N

Set the initial value and effective dates in the Manage Document Sequences task

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Retain Sales Order Number for Orchestration Order Number: You can apply it to a single site or to each user. The profile option code is DOO_RT_USE_ORDER_NUMBER.

- Y. Use the source order number that you import from the source system as the order number during and after transformation. Order Management will display the source order number throughout the Order Management work area after transformation and during order fulfillment.
- N. Don't use the source order number as the order number during or after transformation. Order Management will assign a new order number for the source order and display the new number throughout the Order Management work area after transformation and during order fulfillment.

If the source order number in the source order you import from the source system isn't unique in the source system, then you must set this option to N.

For example, if source system A contains two source orders that each use order number 12345, then set this option to N. If source system A contains one source order that uses order number 12345, and if source system B contains one source order that uses order number 12345, then set this option to Y or N. This set up is necessary to avoid an error during order import because Order Management requires a unique order number for each sales order in the same source system.

The default value is N.

If you import orders from a source system through a web service, REST API, a file, or any other way, and if you set the DOO_RT_USE_ORDER_NUMBER order profile to Y, then Order Management uses order numbers from your source system and ignores the ORA_FOM_DOC_SEQUENCE_AUTO document sequence.

We'll discuss details of how to set up the sequence in a demo.

Practices: Overview

- 3-1: Importing Order Using the File-Based Method
- 3-2: Examining the File-Based Data Import Template and Data File
- 3-3: Examining the File-Based Data Import Log File
- 3-4: Setting Up Sequences for Sales Order Numbers

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Summary

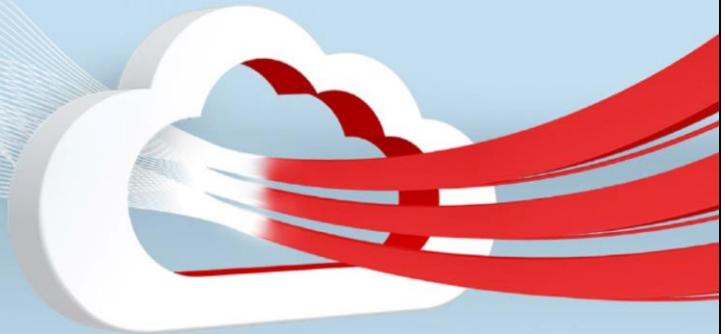
In this lesson, you should have learned how to:

- Explain how orders are imported
- Explain direct web service integration
- Explain file-based data import
- Explain business-to-business messaging
- Explain how to set up sequences of sales order numbers



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4



Transforming Orders

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	45 minutes	Lecture
	40 minutes	Practice
	85 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Explain what order transformation means
- Explain when to use the different types of transformation
- Create a product transformation rule

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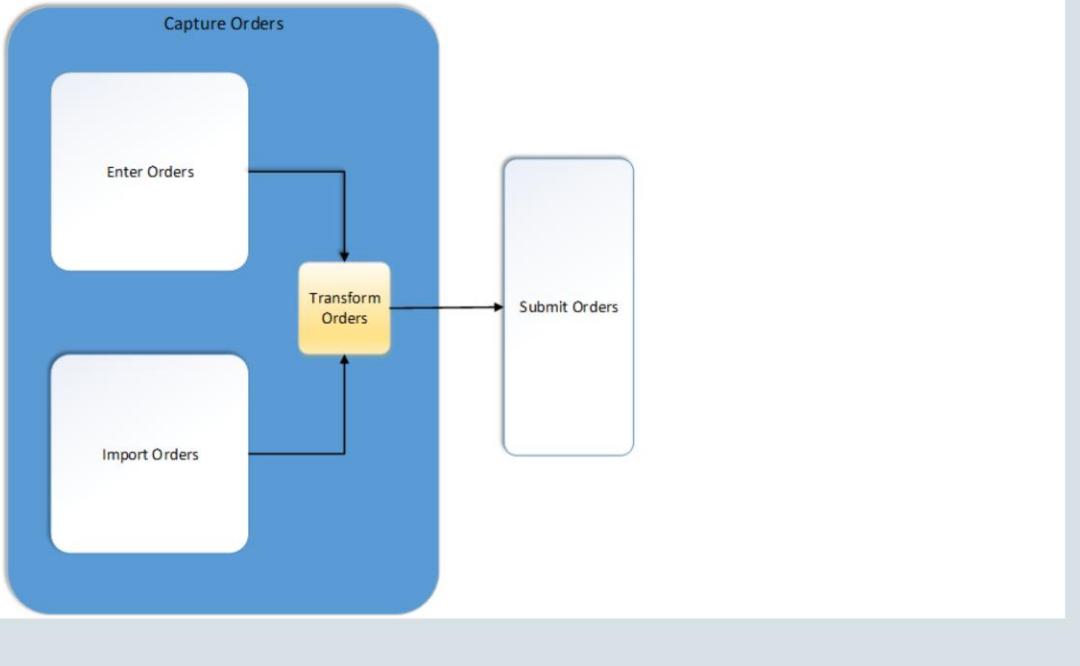
Topics

- Transformation: Overview
- Types of Transformation
- Setting Up Transformation



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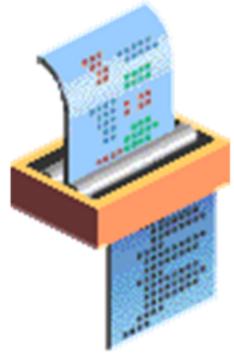
Transformation: Overview



This slide shows transformation as a part of the capture order step. Before Order Management transforms orders, you must enter an order or import one. After your order is transformed it's submitted.

Transformation: Overview

Order Management automatically transforms sales orders to transformed orders according to rules you set up. For example, you might set up a transformation rule that defaults a country-appropriate AC adapter for a laptop based on the ship-to country on the sales order.

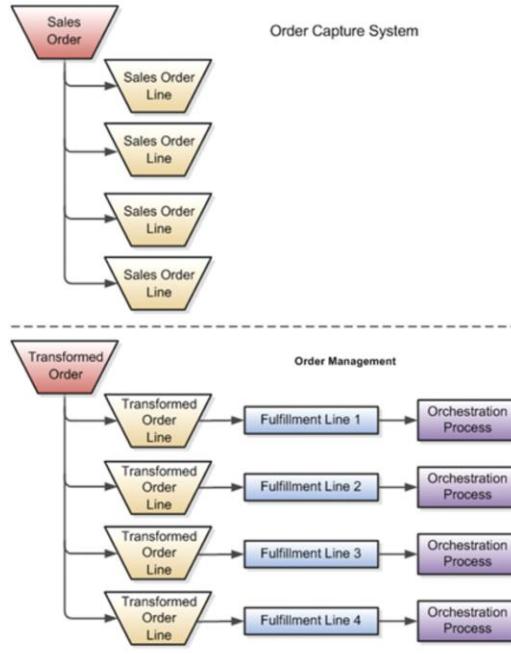


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Some companies have multiple order capture applications. The information that's captured on the sales orders might be different in each application. Not only are sales orders from different applications different from each other, sales orders are also different from Order Management orders, which are referred to in this chapter as transformed orders. A transformed order is the business object that's created when a sales order is imported into Order Management. Order entry specialists can also create orders in the Order Management order entry user interface. Transformed orders capture fulfillment information, such as warehouse, while sales orders are sales-focused, in that they capture information that's important to sales representatives and customers.

To ensure that data is processed correctly, you can create your own product transformation rules to determine how products are transformed when a sales order is converted, or transformed. Product transformation rules automatically process sales orders in the way you want them to appear in Order Management.

Sales Order Versus Transformed Order



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Transformed orders contain the information that's necessary to fulfill an order, for example, customer, item, and quantity. When sales orders (also known as source orders) enter Order Management, they're transformed to a fulfillment representation of orders and order lines. Fulfillment lines also are created. All action in Order Management is taken on fulfillment lines.

A transformed order doesn't necessarily mirror the original sales order.

This graphic depicts a sales order and four sales order lines. When they're transformed, they turn into a transformation order with four transformed order lines, each of which is transformed to a fulfillment line. Each fulfillment line is assigned an orchestration process.

Transformed Order: Example

The diagram illustrates the transformation of a Sales Order into a Transformed Order. It consists of two tables and a central arrow.

Sales Order

Line	Quantity	Product	Price
1	1	Laptop	700 USD
1	1	Deluxe Accessory Package	225 USD

Transformed Order

Product	Transformed Order Line	Fulfillment Line	Quantity
Laptop	1	1	1
Deluxe Accessory Package	2	2.1	1
Docking Station	3	3.1	1
Mouse	4	4.1	1
AC Adapter	5	5.1	1
Keyboard	6	6.1	1

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This example shows how a sales order with two lines becomes a transformed order with six order lines and six fulfillment lines. The transformed order is focused on fulfillment, so the price that was on the sales order is carried over to the transformed order in this example. The line for a laptop in the sales order becomes a transformed line for a laptop in the transformed order. It's assigned fulfillment line 1.1. The Deluxe Accessory Package of the sales order becomes multiple lines in the transformed order. One line represents each of the contents of the Deluxe Accessory Package: Docking station, mouse, AC adapter, and keyboard. A fulfillment line is assigned to each of these lines.

Topics

- Transformation: Overview
- Types of Transformation
- Setting Up Transformation



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Types of Transformation

- Product transformation is executed using a combination of:
 - Product relationships
 - Product structures
 - Transactional item attributes
 - Business rules
- You can write rules to enable the following types of product transformation:
 - Product-to-product
 - Product-to-attribute
 - Attribute-to-product
 - Attribute-to-attribute
 - Context-to-attribute
 - Context-to-product

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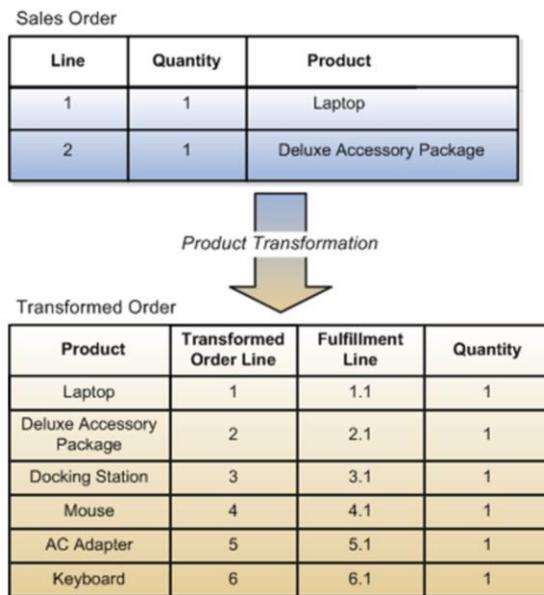
Products are transformed using a combination of product relationships, product structures, transactional item attributes, and business rules. The item cross-reference and structure data that are set up in the Product Information Management work area are also used during transformation. You can write rules to enable the following types of product transformation:

- Product-to-product
- Product-to-attribute
- Attribute-to-product
- Attribute-to-attribute
- Context-to-attribute
- Context-to-product

One rule may enable multiple transformation types.

Note that posttransformation and product transformation rules aren't run on a return order line when an order entry specialist submits it from the user interface.

Product-to-Product Transformation



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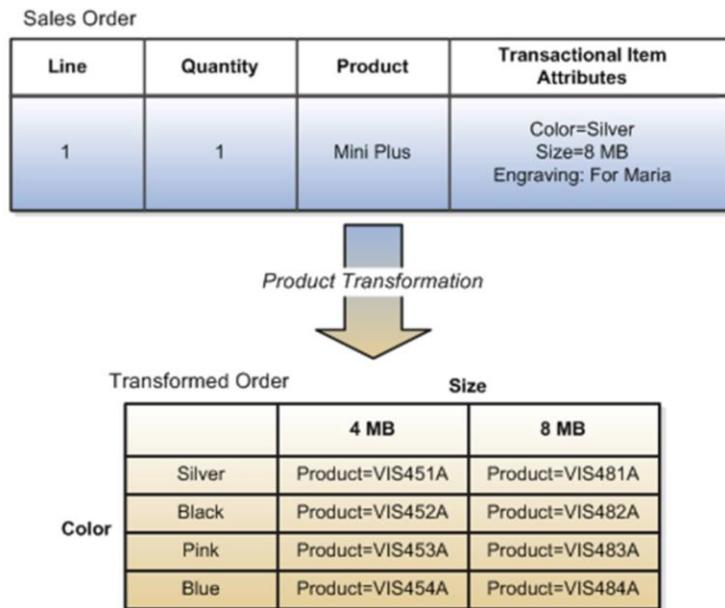
In this kind of transformation, the product is transformed to one or more products based on product structures, product relationship, business rules, or a combination of all.

In the example in the slide, a sales order for a laptop and deluxe accessory package is transformed into an order in which the components of the deluxe accessory package are individual order lines.

The Sales Order table has these column headings: Line, Quantity, Product.

The Transformed Order table has these column headings: Product, Transformed Order Line, Fulfillment Line, Quantity.

Attribute-to-Product Transformation



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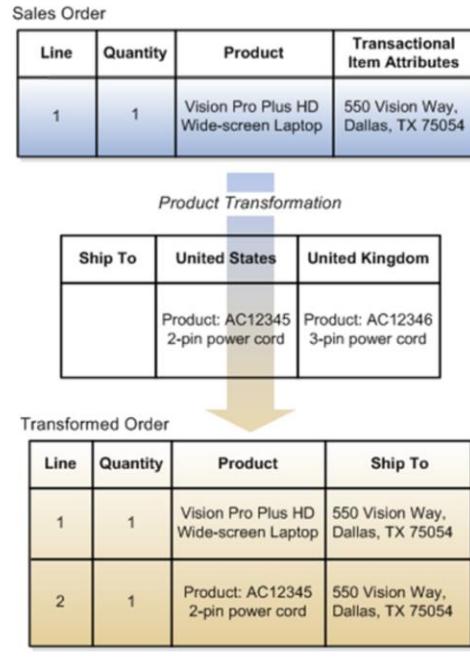
In this kind of transformation, a transactional item attribute is used for transforming the product. The transformation may be added to the existing product or replace the product on the sales order.

In the example above, the Vision Mini Plus product with transactional item attributes of Color=Silver and Size=8 MB transforms to item VIS481A.

The Sales Order table has these column headings: Line, Quantity, Product, and Transactional Item Attributes

The Transformed Order table has these column headings: 4 MB, 8 MB.

Context-to-Product Transformation



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In this kind of transformation, the context of the order is used to transform the product.

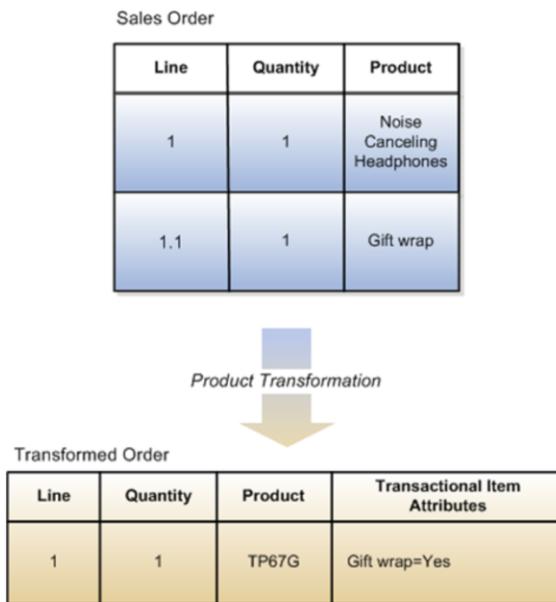
In the example in the slide, the country where the product is being shipped determines which power cord to include with the product.

The Sales Order table has these column headings: Line, Quantity, Product, Transactional Item Attributes

The table in the middle shows the power cord options. It has these column headings: Ship To, United States, United Kingdom

The power cord is added to the transformed order. You can see it in the Transformed Order table, which has these column headings: Line, Quantity, Product, Ship To.

Product-to-Attribute Transformation



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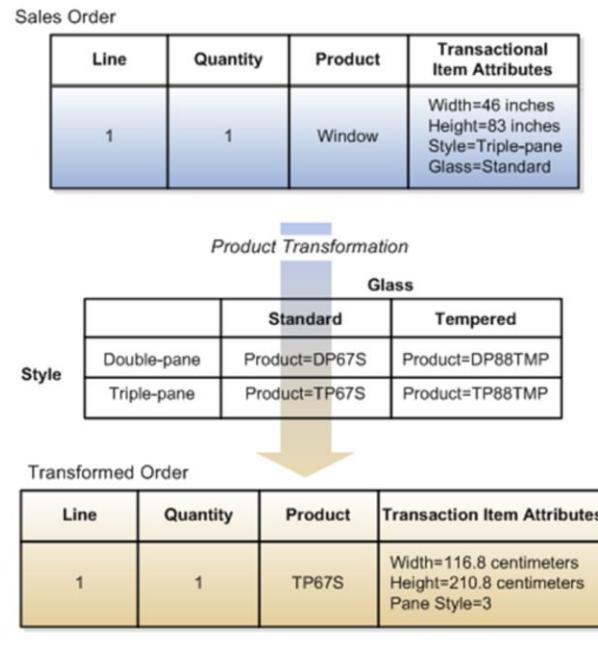
In this kind of transformation, the product on the sales order is transformed into an attribute of another product.

In the example in the slide, a customer orders gift-wrapped, noise-canceling headphones. Gift wrap appears as a child line of the parent sales order line. During transformation, the product model number is derived and the gift wrap option appears as an attribute of the product.

The Sales Order table has these column headings: Line, Quantity, Product.

The Transformed Order table shows the gift wrap option. The table has these column headings: Line, Quantity, Product, Transactional Item Attributes.

Attribute-to-Attribute Transformation



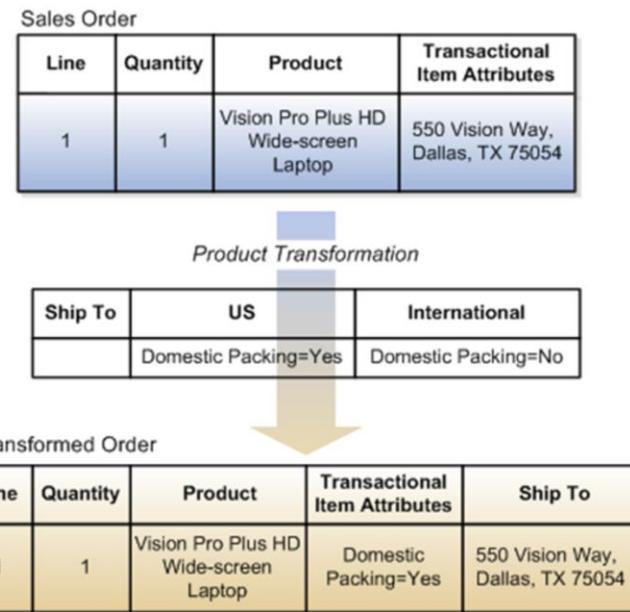
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In this kind of transformation, a transactional item attribute is transformed.

The Sales Order table contains information about the sales order. The column headings are: Line, Quantity, Product, Transactional Item Attributes.

In the example in the slide, style and glass, which appear on the sales order, are transformed to pane style on the transformed order. You can see the new attribute in the Transformed Order table, which has these column headings: Line, Quantity, Product, Transaction Item Attributes.

Context-to-Attribute Transformation



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In this kind of transformation, the context of the order is used to derive a transactional item attribute.

The Sales Order table contains information about the sales order. The column headings are: Line, Quantity, Product, and Transactional Item Attributes

During transformation, the Domestic Packing transactional item attribute is populated on the sales order, so Domestic Packing appears on the transformed order. You can see this in the Transformed Order table, which has these column headings: Line, Quantity, Product, Transactional Item Attributes, and Ship To.

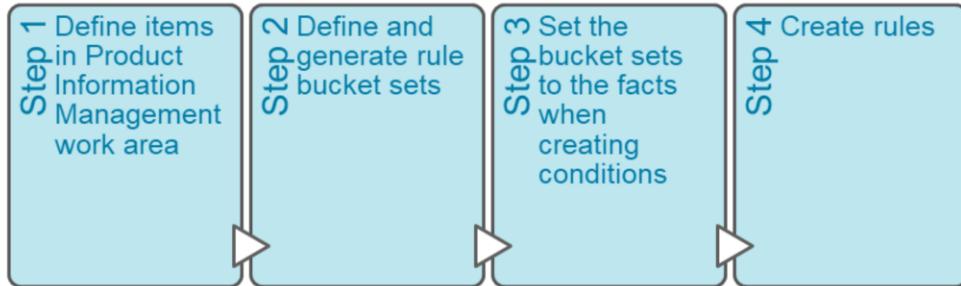
Topics

- Transformation: Overview
- Types of Transformation
- Setting Up Transformation



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Setting Up Transformation



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To set up product transformation, follow these steps, which are also shown above:

1. Define items in the Product Information Management work area.
2. Define and generate rule bucket sets.
3. Set the bucket sets to the facts when creating conditions.
4. Create rules.

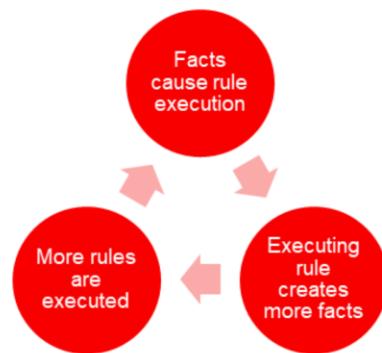
Set up product transformation to ensure that the products are converted properly when a sales order is transformed into a transformed order based on your business rules. The product is transformed using a combination of product relationships, product structures, transactional item attributes, and business rules. Note that the Oracle Business Rules setup steps are optional. Use them if you need additional transformation functionality beyond what is supplied by the product setup.

Bucket sets are optional. They're used primarily when rules are set up in the decision table format.

Transformation Using Oracle Business Rules

The following components are used in Oracle Business Rules:

- Rule conditions
- Rule actions
- Facts
- Bucket sets
- Dictionaries
- Decision tables



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Oracle Business Rules is the Oracle Fusion Middleware technology that's used to set up sales order transformation and other business rules in Oracle Fusion Order Management. Business rules help you to replicate and automate your organization's business processes and rules. For example, if your company provides free shipping on orders over \$200, then you can use Oracle Business Rules to create a rule where free shipping is added automatically to fulfillment lines that are part of orders of over \$200.

The rule-based system is a data-driven forward-chaining system. The facts (data input) determine which rules can be run. When a rule that matches a set of facts is run, the rule may add new facts. These new facts once again are run against the rules. This process repeats until a conclusion is reached or the cycle is stopped or reset. So, in a forward-chaining rule-based system, facts cause rules to be run, and rules that are being run can create more facts, which then can run more rules. Due to this "inference cycle," rules don't always seem to run in sequence because later rules can affect the outcome of earlier ones.

Posttransformation and product transformation rules aren't run on return order lines when an order is submitted from the UI.

These components are used in Oracle Business Rules:

- **Rule Conditions:** The IF part of the rule is composed of conditional expressions, rule conditions that refer to facts. For example: IF Ordered Quantity < 20. The conditional expression compares a business term (Ordered Quantity) to the number 20 using a less-than comparison. The rule condition activates the rule whenever a combination of facts makes the conditional expression true. In some respects, the rule condition is like a query over the available facts in the rules engine, and for every row returned from the query the rule is activated.
- **Rule Actions:** The THEN part of the rule contains the actions that are run when the rule is run. A rule is run after it's activated and selected among the other rule activations using conflict resolution mechanisms such as priority. A rule might perform several kinds of actions, which can add, modify, or remove facts. An action can run a Java method or perform a function which may modify the status of facts or create facts.

- **Facts:** In Oracle Business Rules, facts are the objects that rules reason on. Order Management provides a hierarchy of facts based on the Order Management order data for each transformation rule dictionary.
- **Bucket Sets:** You can create bucket sets to define a list of values or a range of values of a specified type for rule conditions. After you create a bucket set you can associate the bucket set with a condition fact of matching type. Oracle Business Rules uses the bucket sets that you define to specify constraints on the values associated with condition facts in decision tables.
- **Dictionaries:** A dictionary is an Oracle Business Rules container for facts, functions, globals, bucket sets, links, decision functions, and rule sets. A dictionary is an XML file that stores the application's rule sets and the data model. Order Management supplies a number of prepopulated dictionaries that are accessed through Setup and Maintenance to create rules for specific transformation steps.
- **Decision Tables:** A decision table is an alternative business rule format that's more compact and intuitive when many rules are needed to analyze many combinations of property values. You can use a decision table to create a set of rules that covers all combinations or where no two combinations conflict.

An alternative user interface, called the Visual Information Builder, also is available for these rules:

- Pretransformation defaulting
- Process assignment
- External interface routing

Practices: Overview

4-1: Creating a Product Transformation Rule

4-2: Creating a Pretransformation Defaulting Rule Using the Visual Information Builder



Summary

In this lesson, you should have learned how to:

- Explain transformation
- Explain when to use the different types of transformation
- Create a product transformation rule

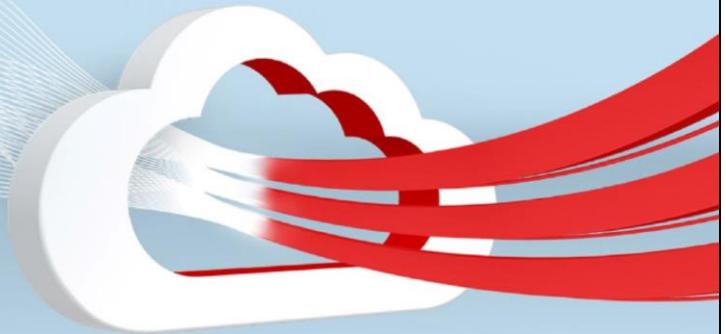


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5



Creating Orders

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule: **Timing** **Topic**

45 minutes	Lecture and Demos
90 minutes	Practices
135 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Explain orders for different types of items
- Track an order during various stages of fulfillment using the Order Management work area

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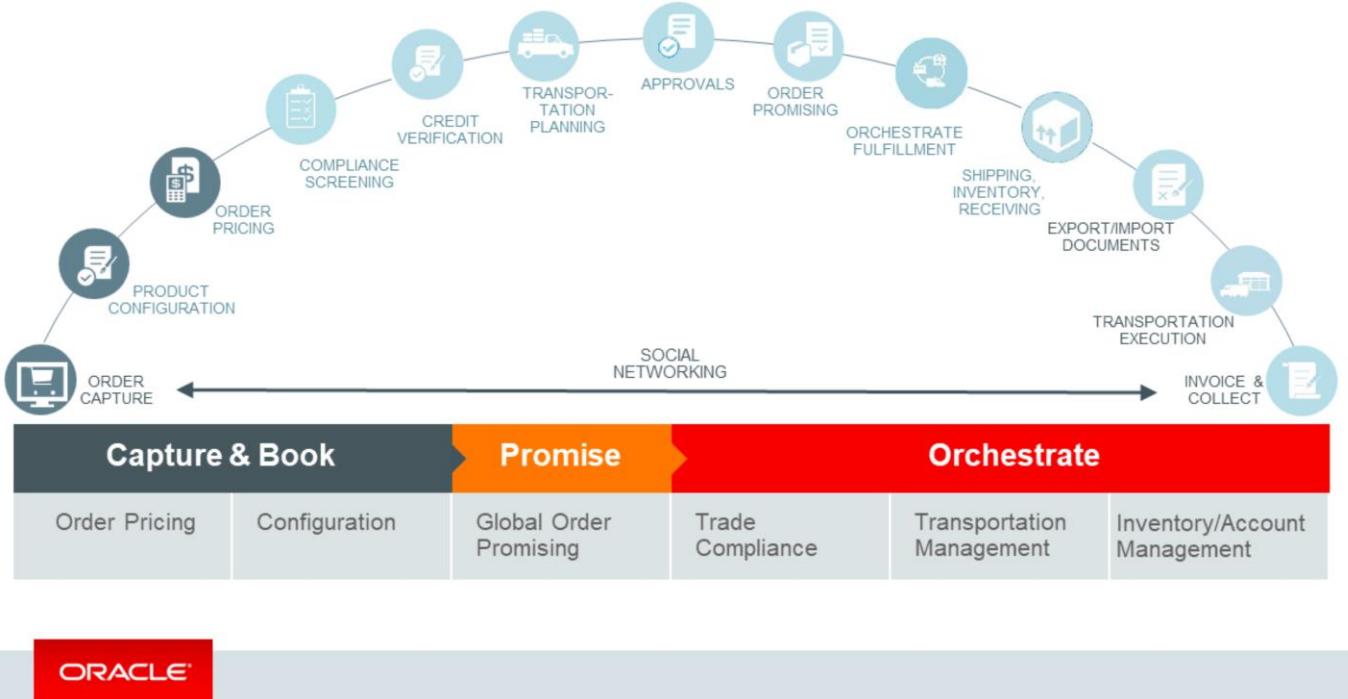
Topics

- Creating Orders: Flow
- Types of Items
- Ordering a Standard Item
- Ordering a Configurable Item
- Ordering a Service Item



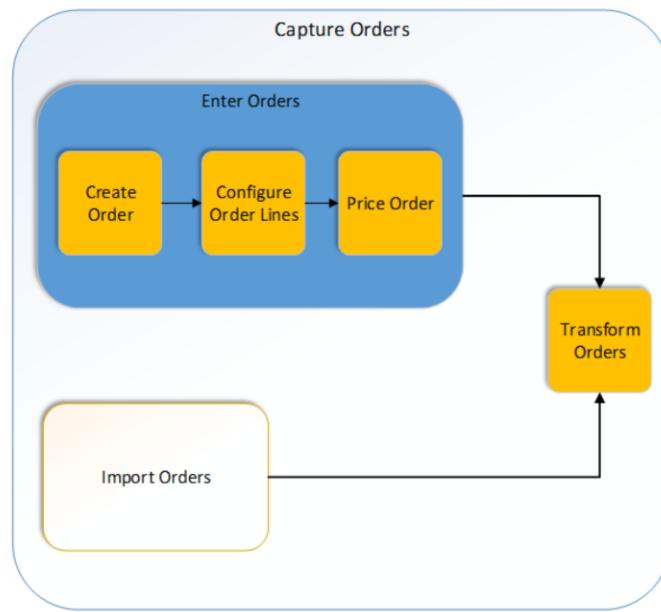
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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. In this lesson, we focus on ordering different types of items.

Creating Orders: Flow



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This diagram shows how entering and configuring orders are part of capturing orders. In the Capture Orders area are boxes labeled Enter Orders and Import Orders. Inside the Enter Orders box are details about entering orders, such as create order, configure order lines, and price order. Arrows go from the Enter Orders box and the Import Orders box to the Transform Orders box.

Topics

- Creating Orders: Flow
- Types of Items
- Ordering a Standard Item
- Ordering a Configurable Item
- Ordering a Service Item



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Types of Items

- Standard Item: An item that isn't defined as configurable.
- Configurable Item: Any item that can be produced or put together the way a customer wants it.
- Service Item
 - Coverage item: Item, such as a warranty, that's associated with another item.
 - Covered item: Item that's enhanced by a coverage item. Coverage is returned automatically only when:
 - The return is created using the user interface, or
 - Through import, when the item is priced using Oracle Fusion Pricing
 - Subscription item

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In the Product Information Management work area, you define items. This is where you:

- Designate an item as standard or configurable
- Make an item eligible for coverage. We sometimes refer to this item as a coverable item
- Designate a coverage item
- Designate a subscription item

Automatic return of coverage: Coverage is returned automatically only when:

- The return is created using the user interface, or
- Through import, when the item is priced using Oracle Fusion Pricing

Charges and Invoices

- Recurring charge: Periodic charge, such as the monthly recurring charge for a phone service.
- Recurring billing: Invoices are created on a cyclical basis for a fixed period of time, as reflected in the terms of a contract with your customer. Examples include the use of rental equipment at a fixed monthly rate, or consulting services provided on an ongoing basis for the life of a project.

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Charges: Additional Considerations

- If an order line includes a recurring charge, then Order Management sums only the one-time charges on this order line. It doesn't include the recurring charge in the Amount field of the order line. If an order line includes only a recurring charge, then Order Management displays a value of 0 in the Amount field. A recurring charge occurs in a specific time period, but the total includes only the amount that's currently due. This time period might occur sometime after the date when the amount is due.
- You set up attributes in Oracle Fusion Receivables and Oracle Fusion Pricing for each customer. This setup determines the values that Order Management displays in the Edit Recurring Billing dialog box. A variety of factors can affect these values, such as pricing strategy and pricing segmentation.
- No strict association exists between charge periodicity and billing periodicity. For example, you can set up a one-time charge and recurring billing or a recurring charge and one-time billing.
- You can also set up one-time charges.
- Set up charges in Oracle Fusion Pricing.

Billing: Additional Considerations

- You can also set up one-time billing.
- Set up billing in Oracle Financials Cloud.

Topics

- Creating Orders: Flow
- Types of Items
- Ordering a Standard Item
- Ordering a Configurable Item
- Ordering a Service Item



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Ordering a Standard Item



- Item that isn't configurable
- Can be a covered item
- Can be shipped or not shipped
- Charges: Can be one-time or recurring
- Billing: Can be one-time or recurring

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Let's talk about standard items. Here are a few basic facts about standard items.

Standard items can be:

- Shippable, such as a tablet, or
- Non-shippable, such as a coverage

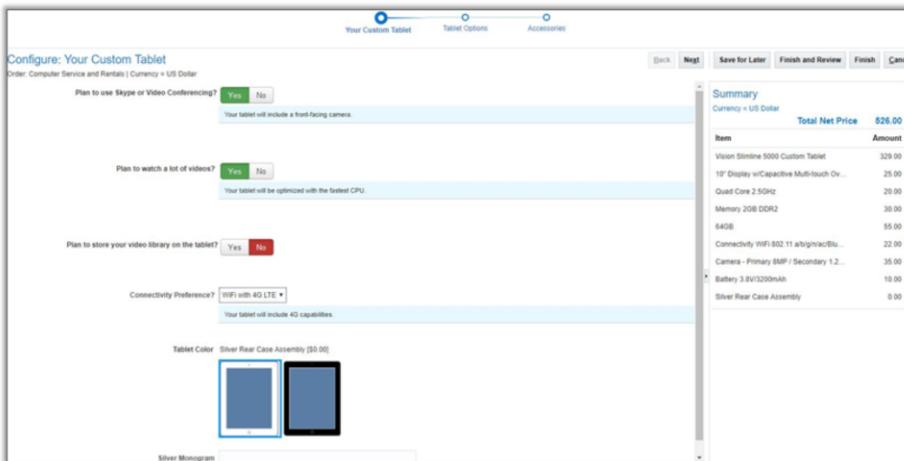
Topics

- Creating Orders: Flow
- Types of Items
- Ordering a Standard Item
- Ordering a Configurable Item
- Ordering a Service Item



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Ordering a Configurable Item: Explained



Configurable Item

Any item that can be produced or put together the way a customer wants it. The customer has some options to choose from, and the business that sells the item is set up to accommodate those options.

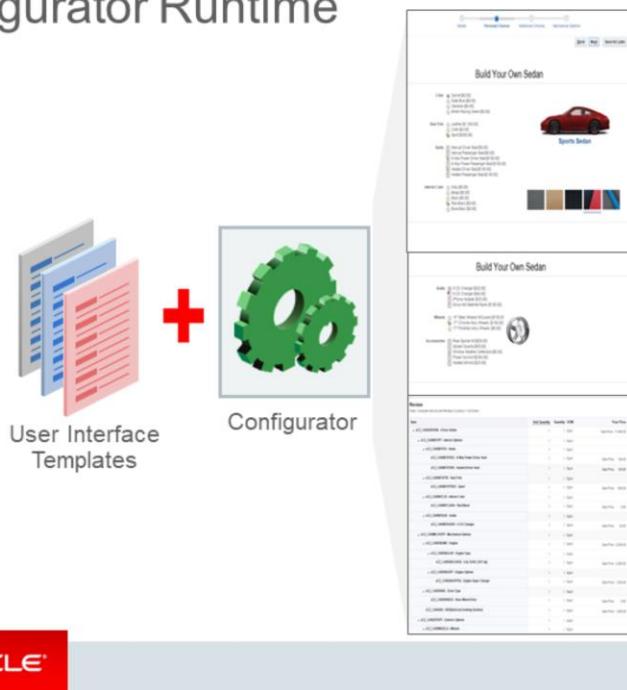
This topic discusses configurable items, how they're ordered, and how pricing works for them. A configurable item is an item defined in the Product Information Management work area that has been ordered with specific characteristics. Pick-to-order (PTO) and assemble-to-order (ATO) items are examples. Configurable items can:

- Have a one-time or recurring charge
- Have one-time or recurring billing
- Capture project attributes
- Have a coverage, for example, an extended warranty

Example: When ordering a tablet computer, a customer can choose from a variety of options.

The graphic depicts a user interface (UI) in which an order entry specialist enters the customer's configuration preferences after clicking Configure or Configure and Add from the Create Order page.

Selecting the Options of a Configurable Item: Configurator Runtime



- Dynamic runtime user interface (embedded task flow)
- Validation service
- Seeded UI templates and template maps
- Runtime user interface definition
- UI conditions in UI editing
- Visual UI page editing
- Testing of model behavior and UIs
- Transactional item attributes
- Integration with Pricing

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End users interact with the Configurator Runtime, which is a UI for selecting the options of a configurable product and for viewing pricing. If you choose to configure the product, then the UI is dynamically assembled. You can configure elements within the UI to be displayed or hidden conditionally, based on other selections that an end user makes.

Validation

Configurator Runtime validates all the options selected for a configured product to ensure they're still valid, especially in the case of longer lead times between when an order is created and submitted for fulfillment.

Simple example of validation: Assume your business is offering 20 GB hard drives as an option today, when an order entry specialist creates the order. But the clerk is waiting for inputs on other products from the customer to add to the order. Meanwhile, your business changes the product offering so that it no longer includes a 20 GB hard drive. So you can end-date the 20 GB hard drive item so it's not available beyond a certain date. When the order entry specialist, who is unaware of these changes, submits the order after adding the awaited inputs, Configurator validates and provides feedback that the 20 GB item isn't available anymore. The order entry specialist must reconfigure the computer to pick another hard drive.

Configurator Parameters:

- Allow Changes Through Configurator Validation: Indicates whether Configurator validation can result in changes to items and attributes.
- Configurator Effective Date: Indicates the date used to filter effective components in the model structure.
- Halt Configurator Validation on First Error: Indicates whether Configurator validation fails on the first error or completes to report all errors.

The screenshot contains the pages where you select options for a tablet.

Configure the Model: Getting Started

The screenshot illustrates the Oracle Order Management interface for configuring a custom tablet model. On the left, the 'Order Lines' screen shows a single item selected: 'Vision Slimline 5000 Custom...' at 1 Ea, with a Sale Price of 329.00 and a Total Price of 329.00. A blue arrow points from this screen down to the configuration dialog on the right. The configuration dialog, titled 'Configure: Your Custom Tablet', displays several configuration options:

- Plan to use Maps or Video Conferencing?**: Options are Yes (green) and No (red). A note states: "Your tablet will include a front facing camera".
- Plan to watch a lot of videos?**: Options are Yes (green) and No (red). A note states: "Your tablet will be optimized with the fastest CPU".
- Plan to store your video library on the tablet?**: Options are Yes (green) and No (red). A note states: "Your tablet will include 4G capabilities".
- Connectivity Preference?**: Option is WiFi with 4G LTE (green).

The configuration summary on the right lists the components and their prices:

Item	Amount
Vision Slimline 5000 Custom Tablet	329.00
16" Display w/ Capacitive Multitouch Dr...	29.00
Quad Core 2.3GHz	29.00
Memory 2GB DDR2	29.00
540G	59.00
Connectivity WiFi 802.11 a/b/g/n/Bt...	22.00
Camera - Primary BMP / Secondary 1.2...	29.00
* Battery 3.0V/3200mAh	10.00
Silver Rear Case Assembly	8.00

At the bottom of the configuration dialog, there are buttons for Back, Next, Save for Later, Finish and Review, and Finish.

To start configuring the model, create an order, select the model, and then select Configure and Add. The first page of options opens.

Configurator Runtime User Interface

The screenshot shows a configuration interface for a 'Your Custom Tablet'. It includes sections for 'Plan to use Skype or Video Conferencing?' (Yes), 'Plan to watch a lot of videos?' (Yes), 'Plan to store your video library on the tablet?' (Yes), and 'Connectivity Preference?' (WiFi with 4G LTE). On the right, there's a summary table:

Item	Total Net Price	Amount
Vision Slimline 5000 Custom Tablet	\$29.00	
10" Display w/Capacitive Multi-touch Ov...	25.00	
Quad Core 2.5GHz	20.00	
Memory 2GB DDR2	30.00	
64GB	55.00	
Connectivity WiFi 802.11 a/b/g/n/ac/Blu...	22.00	
Camera - Primary BMP / Secondary 1.2...	35.00	
Battery 3.8V/3200mAh	10.00	
Silver Rear Case Assembly	0.00	

At the bottom left is an 'ORACLE' logo.

- User interface
 - Assembled dynamically at runtime using templates. These templates provide users consistent look and feel and interactivity.
 - Based on Oracle Application Development Framework (ADF)
 - Administrators edit pages in the Configurator Modeling Environment, where they have access to templates for all major navigation and controls.

We talked about enhancing the product definition from the Product Information Management work area using the Configurator Modeling Environment. You aren't required to create a UI for a configurable product in the Configurator Modeling Environment. As long as the item structure is defined and the item has configurable options, a default UI is displayed for the Order Management user to select the options. Seeded UI templates and template maps are used to render a default UI.

If you work on a model in Configurator Modeling Environment, then you can create and modify the UI for a better user experience by adding conditional rendering of contents in the UI, adding images, and so on.

Assume that you are configuring a computer and you have the option of adding an external hard drive, which itself is configurable. You can set up the UI in such a way that the options to configure the external hard drive are presented only if the end user chooses to buy an external hard drive.

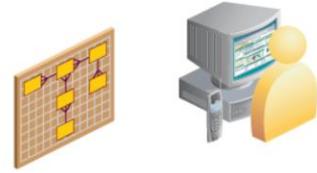
Configurator Runtime uses the ADF framework (Java Server Faces (JSF) user interface component technology) that all Oracle Fusion applications use, allowing for a consistent user experience between Configurator and the application in which it is embedded.

You get to the configuration UI from the Create Order page, as shown in the first screenshot.

The screenshot depicts page 1 of a series of pages where you select options for a new tablet.

Configurator UI Navigation Schemes

- Single page
- Dynamic tree
- Step by step



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Configurator supports three navigation schemes by default.

These schemes are available only when you use Configurator Modeling Environment to create UIs. If you don't import a model into Configurator Modeling Environment, or you import a model without creating a UI before you release a workspace, then the single page UI is displayed by default.

Single-Page Navigation

- Content in a single page
- Drill down to referenced models
- Scroll, if required



A single-page navigation scheme collates all the configurable options of a model onto a single page.

The UI you see here was created within Configurator and is released for use in Order Management when a user configures the tablet for an order. If an administrator doesn't use Configurator and create a model in the Product Information Management work area, then a default (simplified) UI appears to users instead of a UI such as the one here.

If a model has referenced models, then you must drill down into the UI for the referenced model. A referenced model is a model that's a child of the root model item or any option class within it. For example, a car model can have an engine that has several configurable options, such as the number of cylinders and turbo-charge. In this case, the engine is a model that's a child of the car model. The engine is a referenced model.

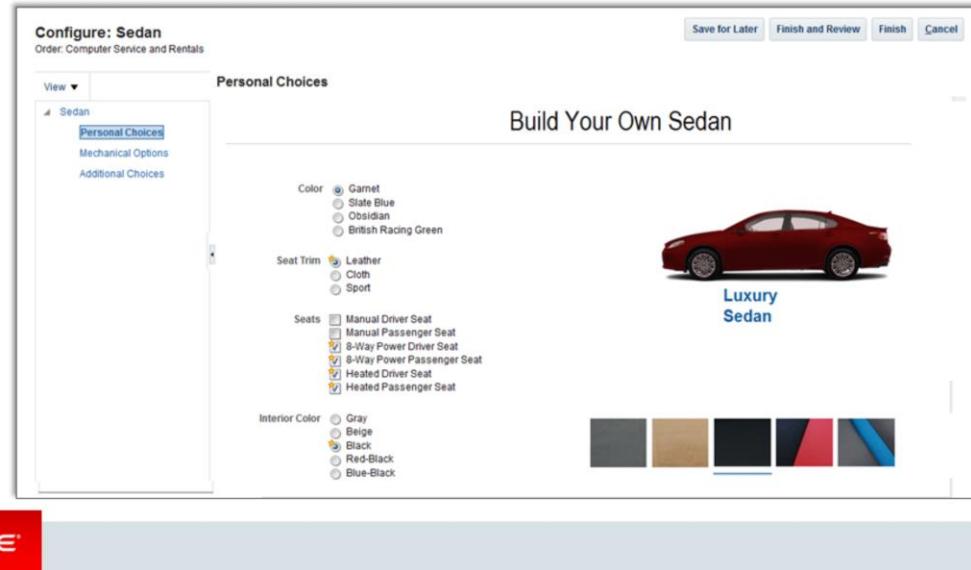
Actions at the UI level:

- **Save for Later:** Saves the configuration as is, in the state left by the user without the Configurator engine finishing the configuration.
- **Finish and Review:** The Configurator engine finishes the configuration (autocomplete) and navigates the user to a review page where all the selections appear.
- **Finish:** The Configurator engine finishes the configuration and returns the selection information to Order Management.
- **Cancel:** Warns the end user about losing any selections and returns to the location in Order Management where Configurator was called.

The screenshot depicts one page of options for a tablet.

Dynamic Tree Navigation

- Navigate using the tree links
- Drill down to referenced model UIs



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In dynamic tree navigation, a user can navigate to a specific page using the tree links on the left side of the page.

When the UI is created, each of the navigation steps appears as a page.

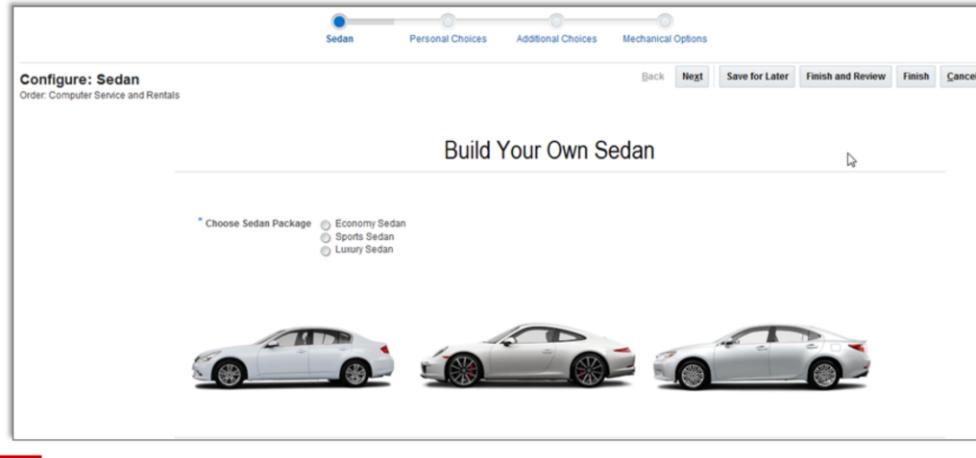
If a model has referenced models, then the user can drill down into the UI for the referenced model using the Configure icon that appears next to the referenced model. No tree link is available to navigate to the referenced model.

The same UI-level actions, such as single-page UI, appear in this navigation scheme.

The screenshot depicts page 1 of a series of pages where you select options for a new car.

Step-by-Step Navigation

- Navigate using steps.
- Train indicates the current step.
- Drill down to referenced model UIs.



In step-by-step navigation, a user can navigate to a specific step using the train steps that appear at the top of the UI.

When the UI is created, each of these tree links appears as a page.

If a model has referenced models, then the user drills down into the UI for the referenced model by using the Configure icon displayed next to the referenced model. No train step is available to navigate to the referenced model.

The same UI-level actions as in the single page UI appear in this navigation scheme. Back and Next buttons appear on this page.

This screenshot depicts page 1 of a series of options for a new car. The options on this page are oriented differently than the previous set of sedan options.

Pricing Configurable Items (Models)



Users can see real-time pricing at runtime

- Define configured item pricing in Oracle Fusion Pricing
- At runtime, Order Management calls the pricing engine to display accurate pricing
- Prices for items are displayed
- Prices and totals are displayed on the Review page

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Prices are fetched from the appropriate price list through integration with Pricing.

Configurator displays the prices in the UI when the price is set up for an item.

The Configuration Review page also displays the total net prices, which excludes taxes and shipping charges.

Topics

- Creating Orders: Flow
- Types of Items
- Ordering a Standard Item
- Ordering a Configurable Item
- Ordering a Service Item



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Item Types and Characteristics

Item Type	Characteristics							
	Standard Item	Configurable Item	One-Time Charges	Recurring Charges	One-Time Billing	Recurring Billing	Shippable	Service Duration and Period
Covered Item	Y	Y	Y	Y	Y	Y	Y	N
Coverage Item	Y	N	Y	Y	Y	Y	N	Y
Subscription Item	Y	Y	Y	Y	Y	Y	N	Y

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Your customers can order these types of service items:

- **Covered item:** Any item that's enabled for contract coverage in the Product Information Management work area. A computer and car are examples of covered items.
- **Coverage item:** An item defined in the Product Information Management work area to provide coverage to an item defined as a covered item. Examples: service agreement, warranty. Must be mapped to one of these sales product types:
 - Extended warranty
 - Software maintenance
 - Service level agreement
 - Preventive maintenance
- **Subscription item:** An item defined as a subscription in the Product Information Management work area. A subscription item can be a standalone item or a covered item. When a subscription is a covered item, you can attach a coverage to it. Example: Cloud subscription.

Demonstration: 5-1

Ordering a Standard Item with Coverage



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This demo takes you through the process of entering a sales order for a standard item. This is normally an activity that the order entry specialist performs. We're showing you how to enter orders for several types of items because the best way to understand the implementation requirements is to understand how different kinds of orders are created.

Demonstration: 5-2

Ordering a Model With a Coverage Item



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In this demo, we'll create an order for a configurable product, which is similar to an order that was created for a standard item. We will:

1. Create the order.
2. Add the configurable item.
3. Configure the item.
4. Add a coverage item to the configured covered item.
5. Validate the order.
6. Submit the order.

Demonstration: 5-3

Ordering a Model With a Coverage Item



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In this demo, we'll create an order for a configurable product, which is similar to an order that was created for a standard item. We will:

1. Create the order.
2. Add the configurable item.
3. Configure the item.
4. Add a coverage item to the configured covered item.
5. Validate the order.
6. Submit the order.

Demonstration: 5-2

Ordering a Model With a Coverage Item



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In this demo, we'll create an order for a configurable product, which is similar to an order that was created for a standard item. We will:

1. Create the order.
2. Add the configurable item.
3. Configure the item.
4. Add a coverage item to the configured covered item.
5. Validate the order.
6. Submit the order.

Demonstration: 5-3 (Optional)

Creating and Processing a Return Order



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In this demo, we'll discuss how to create and process a return order.

Practices

- 5-1: Ordering a Standard Item with Coverage
- 5-2: Ordering a Model
- 5-3: Viewing Fulfillment Lines and Orchestration Plan
- 5-4: Process Sales Orders for Projects
- 5-5: Setting Up Sales Agreements in Order Management
- 5-6: Setting Up Business Units for Selling Profit Centers

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No time to do these practices now? Do them later, or look up this supplemental information:

- Processing Sales Orders with Project Attributes: Release readiness doc, help center topic
- Setting Up Sales Agreements in Order Management: Release readiness doc, help center topic
- Setting Up Selling Profit Center Business Unit: Release readiness doc, help center topic

Summary

In this lesson, you should have learned how to:

- Explain orders for different types of items
- Track an order through various stages of fulfillment



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Pricing Orders: Pricing Strategies

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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50 minutes	Lecture and Demos
20 minutes	Practice
70 minutes	Total

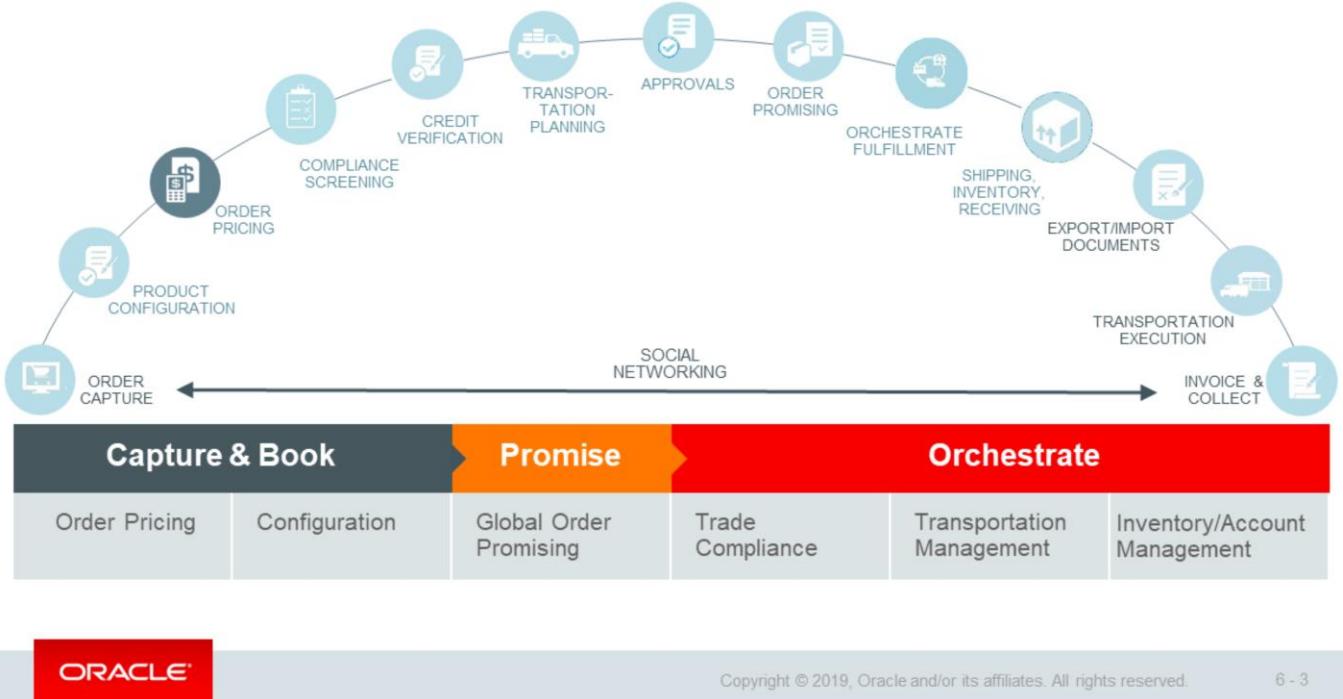
Learning Objectives



After you complete this lesson, you should be able to:

- Describe what a pricing strategy is
- Explain customer pricing profiles
- Describe the purpose of a pricing segment
- Explain pricing strategy assignment
- Derive a pricing strategy for a customer
- Explain the concepts of matrixes and how they're used

Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Oracle Order Management Cloud is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on pricing strategies.

Topics

- Pricing in Order Management
- Pricing Strategies
- Setups: Matrixes



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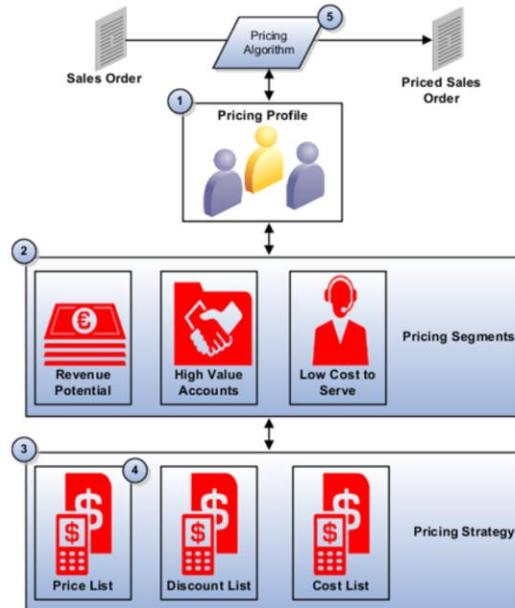
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Pricing in Order Management

Oracle Fusion Pricing is the pricing solution used in Order Management. You can:

- Create pricing rules that meet your revenue and business objectives so that you can price items for each pricing segment
- Create pricing algorithms that support your corporate pricing practices
- Modify predefined logic, so that you can implement a pricing algorithm that runs the pricing rules that your deployment requires



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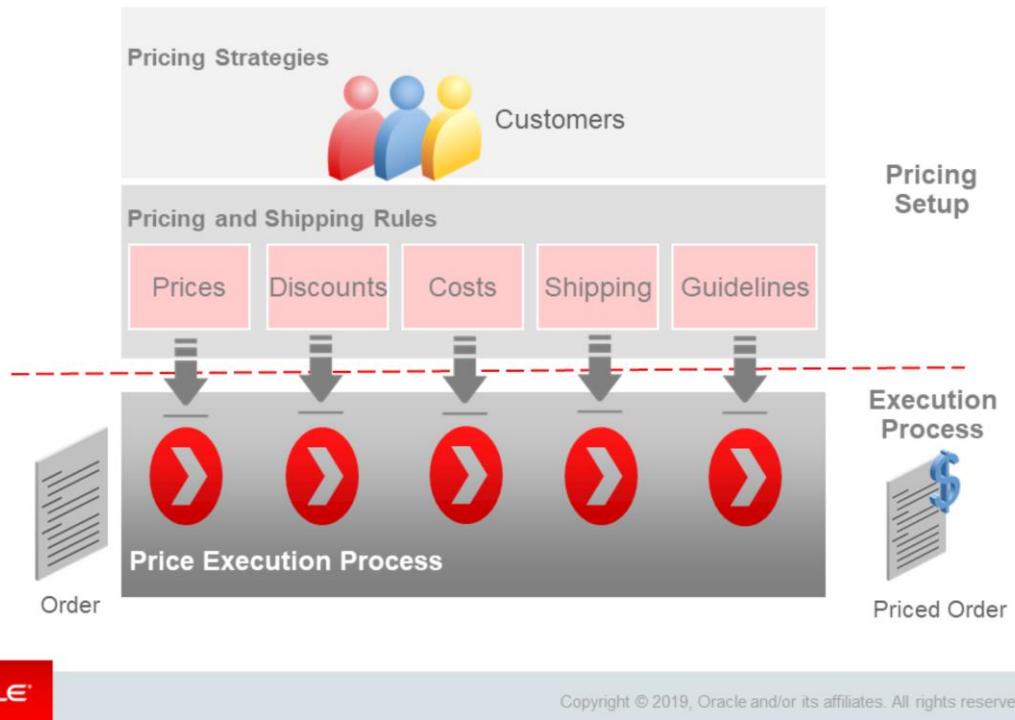
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You can set up these components in Pricing:

1. **Pricing Profile.** Categorize customers with similar characteristics. For example, categorize a customer as large customer size, high customer value, medium customer rating, and high revenue potential.
2. **Pricing Segment.** Assign customers with similar buying practices to a pricing segment, and then associate this segment with a pricing strategy that meets the business and revenue goals that you set for this segment.
3. **Pricing Strategy.** Implement and enforce corporate pricing strategies and pricing objectives so that they meet your business and revenue requirements. You can group pricing rules in a pricing strategy to control pricing behavior.
4. **Lists.** Create lists, such as a price list, that include rules that calculate price and shipping charges for an item, and then reference these lists from the pricing strategy. You can:
 - Apply multiple charges to an item. For example, you can define a charge for a one-time sales price for a desktop computer in one pricing rule, and then apply another charge for maintenance service for this desktop computer that recurs monthly in another pricing rule.
 - Create pricing rules that calculate the base price, list price, price adjustments, discounts, return charges, shipping charges, and so on according to a set of conditions and results.
 - Define currency conversion rules that manage pricing for different currencies.
5. **Pricing Algorithm.** Set up the process that Pricing uses during pricing calculations, including pricing algorithms and service mappings. Pricing processes are extensible to model complex pricing scenarios. It's expected that you'll extend them to accommodate your business practices.

For more information, see <https://cloudcustomerconnect.oracle.com/posts/f3248b7642>

Pricing Solution



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This diagram depicts the pricing setup required to enable pricing execution.

Using Pricing, you can create your own price execution processes so that they map to their pricing methodologies. Pricing provides flexible price management capabilities that you can use to create targeted pricing rules and processes to support your corporate pricing practices. The price administration functionality lets you design pricing rules for your products and services to meet the business objectives for your customers. First, pricing administrators need to evaluate their customer base and then group customers with similar buying behaviors or practices into pricing segments. Pricing administrators must then evaluate the price points and pricing rules needed to meet the business and revenue goals set forth for the segment.

Some examples of these rules are defined in price lists, discount lists, cost lists, shipping charge lists, and guidelines. These pricing rules are grouped together in a strategy to create specific pricing behavior for an order. The pricing strategy is a container for the various types of pricing rules that are used during price execution and defines the approach for achieving a specific goal around selling products. Pricing enables you to effectively implement your pricing strategies so that they meet your business and revenue objectives. For example, you can use a pricing strategy that uses higher discounts when you sell to new customers through the direct sales channel. Your customer may belong in the New Customers Pricing Segment and through the New Customers Pricing Strategy, you may leverage higher discounts for their products.

Business Use Case

You are a pricing administrator at Vision Corporation. Your team is responsible for pricing implementation and activities of establishing your pricing segments and strategies, defining prices, managing discounts, and defining shipping charges for your products.

As part of the company's annual pricing review, you will focus on the areas that impact pricing for the customer Computer Service and Rentals.

- Pricing Segments and Strategies
- Price Lists
- Discount Lists
- Shipping Charge Lists
- Guidelines



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Now let's look at a business use case. We will leverage this use case throughout the next few pricing lessons.

Topics

- Pricing in Order Management
- Pricing Strategies
- Setups: Matrixes



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Pricing Strategies: Overview

- Configurable process to derive the pricing strategy by using:
 - Customer pricing profile
 - Pricing segment
 - Pricing strategy assignment
- Pricing strategy is the container for the pricing rules
 - Price lists, discount lists, shipping charge lists, cost lists, currency conversion lists, guidelines, and more



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First, note the following definitions:

- Customer pricing profile: Set of pricing-related attributes that describe a customer's buying behavior. You evaluate these attributes and specify them for a pricing segment.
- Pricing segment: Grouping of customers with similar buying behavior. It can help you better categorize and understand how customers in a pricing segment will respond to a common pricing strategy.
- Pricing strategy: Grouping of pricing rules that together define the approach for achieving a specific goal around selling and pricing products. These various types of pricing rules include price lists, discount lists, shipping charge lists, cost lists, currency conversion lists, and guidelines. A pricing strategy identifies a specific pricing objective (such as penetrate market, maintain position, phase out a product) and the collection of prices and pricing policies that are applied to accomplish the objective.

This diagram shows that pricing segment is created from a customer profile. Then the pricing strategy is derived from the pricing segment.

These days, companies are pushing corporate pricing strategies to the front line as part of the planning and setting of prices. Through targeted pricing segments and strategies, businesses can focus on setting the correct price for the customer to meet their business objectives.

Pricing Strategies: Customer Pricing Profiles

- Set of pricing-related attributes that describes a customer's buying behavior
- Date-effective to accommodate changes in a customer profile

The screenshot shows a Microsoft Excel spreadsheet titled 'Customer Pricing Profiles'. The table has columns: Customer Name, Revenue Potential, Cost to Serve, Customer Value, Customer Rating, Customer Size, Start Date, and End Date. The rows list various companies: Crest Unlimited, Chen Limited, Apex Solutions, Pinnacle Technologies, Business World, Dixon Industries, Computer Service and Rentals, and Quest Automation Ltd. The row for 'Computer Service and Rentals' is highlighted with a red border.

	Customer Name	Revenue Potential	Cost to Serve	Customer Value	Customer Rating	Customer Size	Start Date	End Date
▶	Crest Unlimited	Very high	Low	Very high	Very high	Large	1/1/16 6:40 PM	
▶	Chen Limited	Very high	Medium	High	High	Large	8/11/17 6:11 PM	
▶	Apex Solutions	Very high	Medium	High	High	Large	8/11/17 6:12 PM	
▶	Pinnacle Technologies	Very high	Low	Very high	Very high	Large	1/1/16 10:22 PM	
▶	Business World	Very high	Low	Very high	Very high	Large	1/1/16 10:23 PM	
▶	Dixon Industries	Very high	Low	Very high	Very high	Large	1/1/16 10:24 PM	
▶	Computer Service and Rentals	Very high	Low	Very high	Very high	Large	1/1/16 9:58 PM	
▶	Quest Automation Ltd	Very high	Medium	High	High	Large	8/11/17 6:12 PM	



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A customer profile maps a customer to a set of attributes that describes the customer's buying behavior. You can group customers who have similar customer pricing profiles together in a pricing segment. Because a customer profile may change over time, profiles are effective in a date range. You can create multiple profiles for the same customer that are effective over different time periods.

You can manage the values for the customer pricing profiles. One way to manage these profiles is to search for profiles using attributes, edit the values in an Oracle ADFi-integrated Microsoft Excel workbook, and then upload the changes to Oracle Fusion Pricing.

This screenshot depicts the customer pricing profile for Computer Service and Rentals, effective from August 1, 2015. The pricing profile values for this customer are:

- **Revenue potential:** Very high
- **Cost-to-serve:** Low
- **Customer value:** Very high
- **Customer rating:** Very high
- **Customer size:** Large

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Customer Pricing Profiles**.

Pricing Strategies: Pricing Segments

- Is a grouping of customers who exhibit a common set of characteristics and similar buying behaviors
- Identifies targeted groups of customers in order to apply specific pricing strategies
- Leverages extensibility of matrix

Row	Condition Columns					Result Columns		Dates	
	Revenue Potential (=)	Customer Size (=)	Cost To Serve (=)	Customer Value (=)	Customer Rating (=)	* Pricing Segment	* Precede	Start Date	End Date
High	Large	Low	High	High	High	Corporate Segment Group 3	150	1/1/16 9:17 PM	
Very high	Large	Medium	High	High	High	Corporate Segment Group 1 - UK	100	8/11/17 6:08 PM	
Medium	Medium	Medium	Medium	Medium	Medium	Corporate Segment Group 2	200	1/1/16 9:54 PM	
Medium	Medium	Low	Medium	Medium	Medium	Corporate Segment Group Default	1,000	1/1/16 9:54 PM	
Low	Small	Medium	Low	Low	Low	Corporate Segment Group 3	300	1/1/16 10:04 PM	
Very high		Large	Low	Very high	Very high	Corporate Segment Group 1	100	1/1/16 9:51 PM	mid/yy h:mm a



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As part of your planning, you need to review the attributes used for segmenting your customers for pricing. You must determine how many pricing segments to have. Pricing uses the attribute values from the customer pricing profile to determine the pricing segment for a customer. Customers that exhibit a common or similar set of buying characteristics are grouped together in a pricing segment.

Pricing uses the unique concept of matrixes where you can define condition and results columns. This screenshot depicts pricing segments. Attribute values represent the conditions, and pricing segment and precedence values represent the results. By using the matrix, you can extend the criteria for deriving the pricing segment.

Example: Customers that have very high revenue potential, large customer size, low cost to serve, very high customer value, and a very high customer rating fall in the Corporate Strategy Group 1 pricing segment. Customers may fall in the Corporate Strategy Group 2 pricing segment with medium revenue potential, large customer size, medium cost to serve, medium customer value, and a medium customer rating.

A row in this example indicates that a customer falls into the Corporate Segment Group Default if none of the condition values matches. This is called the default pricing segment. The pricing engine matches all the rules that qualify and uses the precedence value to determine the rule with the higher precedence (lower precedence number).

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, select **Tasks**, and then select **Manage Pricing Segments**.

Pricing Strategies: Pricing Strategy Assignments

- Is the assignment of pricing segment to pricing strategy
- Provides a mechanism to employ different pricing strategies for the same pricing segment in different selling scenarios
- Uses extensibility of the matrix

Header-Sales-All-01/01/2016 22:11: Pricing Strategy Assignment Rules						Delete Assignment Matrix	
Row	Condition Columns	Result Columns	Dates				
	Channel Method (-)	Pricing Segment (-)	Transaction Type (-)	Pricing Strategy	Precedence	Start Date	End Date
		Corporate Segment Group 1 - UK		GBP Pricing Strategy	10		
		Corporate Segment Group 2 - China		Corporate Pricing Strategy-China	10		
		Corporate Segment Group 1		Corporate Pricing Strategy Group 1	10		
		Corporate Segment Group 3		Corporate Pricing Strategy	100		



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Example: The customer Computer Service and Rentals belongs in the Corporate Segment Group 1 pricing segment. We can see that Corporate Pricing Strategy Group 1 will be applied. By using the matrix, you can extend the criteria for deriving the pricing strategy and add more conditions (condition columns).

Note that pricing strategies are at the header level in Order Management.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Pricing Strategy Assignments**.
3. Select Header.

Pricing Strategies

Defines the approach for achieving a specific goal around selling and pricing products

The screenshot shows the Oracle Cloud interface for managing pricing strategies. At the top, there's a header bar with buttons for 'Approve', 'Save and Close', 'Save', and 'Cancel'. Below the header, the page title is 'Edit Pricing Strategy: Corporate Pricing Strategy Group 1'. The main form contains fields for 'Name' (Corporate Pricing Strategy Group 1), 'Status' (Approved), 'Objective' (Competitive pricing), 'Business Unit' (US1 Business Unit), 'Default Currency' (USD), 'Default GL Conversion Type' (Corporate), and date/time fields for 'Start Date' (1/1/16 10:09 PM) and 'End Date' (m/d/yy h:mm a). There are also checkboxes for 'Allow price list override' and 'Allow currency override'. Below the main form, there's a section titled 'Additional Information' with tabs for 'Pricing Rules', 'Shipping Rules', 'Guidelines', and 'Allowed Override Currencies'. Under 'Pricing Rules', there are links for 'Price Lists', 'Returns Price List', 'Cost Lists', 'Discount Lists', and 'Currency Conversion Lists'. A table titled 'Segment Price Lists' lists two entries: 'Corporate Strategy Group 1' and 'Corporate Segment Price List'. The table has columns for Name, Description, Business Unit, Currency, Status, Start Date, End Date, and Strategy Association Details. The Oracle logo is at the bottom left, and copyright information is at the bottom right.

A pricing strategy represents the approach for achieving a specific goal around pricing and selling products. It's the common container for all the pricing and shipping rules that are evaluated for a transaction. Pricing and shipping rules include price lists, cost lists, discount lists, shipping charge lists, and currency conversion list. You can prioritize pricing rules. The pricing rules are picked and determined based on precedence. A record with a lower number indicates a higher precedence. Shipping rules are associated with pricing strategy using shipping charge lists. Shipping charge lists obtain the shipping charges.

The default currency is specified for the pricing strategy and is the default currency for the transaction.

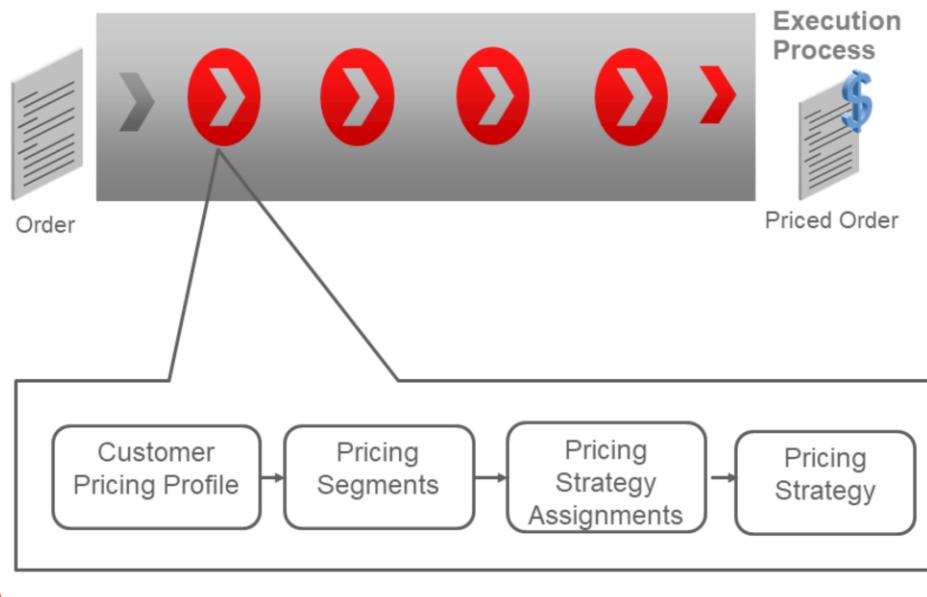
This screenshot depicts the Corporate Pricing Strategy Group 1 page.

- Allow currency override: Lets you override currency on the order.
- Price lists: Associated segment price lists, ceiling price lists, floor price lists, and GSA price lists.
- Discount lists: Capture simple, tiered, or attribute-based discounts. Typically calculated between list and net price.
- Cost lists: Capture costs used for cost-plus pricing or costs for margin calculation.
- Currency conversion lists: Manage the conversion rates between currencies.
- Shipping charge lists: Capture shipping charges based on the shipping method.
- Guidelines: Enforce your organization's pricing policies during ordering.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Pricing Strategies**.
3. Search for Corporate Pricing Strategy Group 1 and then click the **Edit** icon.

Price Execution: Derive Pricing Strategy



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This diagram depicts how the pricing strategy was derived for Computer Service and Rentals in the price execution process.

High-level steps:

1. Evaluate the customer pricing profile. Pricing uses the values that are associated with the customer pricing profile to determine the pricing segment for the pricing date.
2. Determine the pricing segment based on the values from the customer pricing profile. This is the pricing segment that is returned on the order.
3. Determine the pricing strategy that must apply to the order based on the rules in the pricing strategy assignment.
4. After the pricing strategy is derived, the pricing engine applies the pricing rules for the strategy to the order, returns the Pricing Strategy details, and returns the default currency for the transaction.

Topics

- Pricing in Order Management
- Pricing Strategies
- Setups: Matrixes



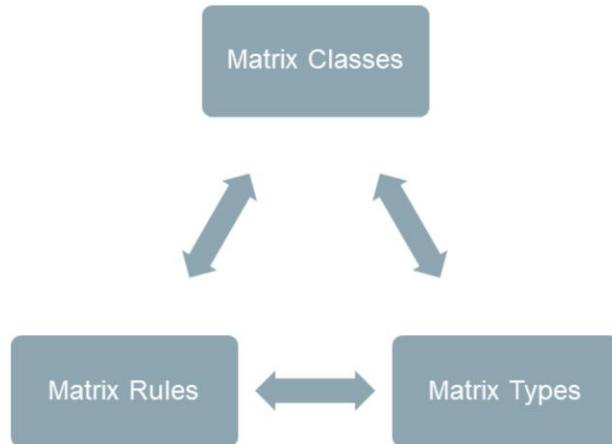
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Matrixes: Overview

- Define a set of dynamic conditions and results in a tabular format
- Consists of:
 - Matrix Classes
 - Matrix Types
 - Matrix Rules



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This diagram depicts the relationship of matrix classes to matrix rules and matrix types.

Use pricing matrixes to define a set of conditions and results in a tabular format, similar to a spreadsheet. Matrixes are prevalent throughout Oracle Fusion Pricing. Use matrixes to determine pricing segments, derive pricing strategies, and support attribute-based pricing adjustments on price lists and discounts lists. Matrixes consist of the following key components: matrix classes, matrix types, and matrix rules.

Many pricing administrators are comfortable working in an environment similar to a spreadsheet, so the Matrix Classes UI is designed using a simple tabular format. Because each matrix class can have one or more condition and result dimensions, matrixes are a flexible way of creating multidimensional rules. This lesson shows how to define matrix classes and shows how they're used by Oracle Fusion Order Management.

Matrixes are composed of three major constructs:

- Matrix class: Template that defines matrix structure, that is the conditions, comparison attribute, and results.
- Matrix type: Matrix classes are mapped to a matrix type. The mapping ensures that the correct matrix class is leveraged by the applicable entities in the Pricing Administration UI, as well as during price execution. For example, consider the seeded matrix class Pricing Term Adjustment. It's mapped to the Discount Adjustment (QP_DISCOUNT_ADJ) matrix type. Based on this assignment, the Pricing Term Adjustment matrix appears on the Manage Discount Lists page and can be used to create matrix rules related to discount adjustments.
- Matrix rule: Specific definition of a matrix class for a given entity. For example, you can use a matrix rule to apply a \$2 discount on all items if a customer is located in a specific zip code. In this case, the Pricing Term Adjustment matrix uses "zip code" as a condition column, and "adjustment type" and "adjustment amount" as result columns. In the matrix rule, you define a rule so that for the zip code 94065, a \$2 discount is applied.

Matrix Classes

- Contains the details of the matrix structure
- Manage the condition and result columns

Display Sequence	Name	Source Code Name	Comparison	Compare To Attribute	Required	Allow Null	Null Is Wildcard	Domain
10	Revenue Potent	RevenuePotentialCode	=	CustomerPricingProfile Revenue	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lookup ORA_OP_REV_POTENTIAL_VALUES
10	Customer Size	CustomerSizeCode	=	CustomerPricingProfile CustomerS...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lookup ORA_OP_CUSTOMER_SIZE_VALUES
10	Cost To Serve	CostToServeCode	=	CustomerPricingProfile CostToSer...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lookup ORA_OP_COST_TO_SERVE
101	Customer Value	CustomerValueCode	=	CustomerPricingProfile CustomerV...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lookup ORA_OP_CUSTOMER_VALUE_RANKINGS
102	Customer Rating	CustomerRatingCode	=	CustomerPricingProfile CustomerR...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lookup ORA_OP_CUSTOMER_RATING_VALUES

Name	Source Code Name	Required	Allow Null	Domain
Pricing Segment	PricingSegmentCode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lookup ORA_OP_CUST_PRICING_SEGMENTS
Precedence	Precedence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Number - 100



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You can create a matrix class, or modify a seeded matrix class. A matrix class contains the conditional attributes that Pricing evaluates and the results attributes that Pricing returns if the conditions are met. You manage matrix classes through the Manage Matrix Classes UI in the Pricing Administration work area.

Within this UI, you define the conditions and results records, comparison operators, and the Compare To attribute. Pricing captures some additional attributes, such as whether the column is required for the matrix (Required flag), or whether the column value can be null for a given rule. You must also specify the domain, which is a set of possible values, for each column.

In this screenshot, the attributes of Revenue Potential, Customer Size, Cost to Service, Customer Value, and Customer Ranking are possible condition columns that you can use in the Pricing Segment matrix class. Pricing captures the Pricing Strategy and Precedence attributes as the result columns.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Matrix Classes**.
3. Click a hyperlinked name.

Matrix Types

Map matrix classes to matrix types

* Matrix Type Code	* Name	Description	Dynamic Matrix Class	Allow Multiple Matrixes	Active
QP_COST_LIST_CHARGE_ADJ	Cost List Charge Adjustment		Cost List Charge Adjustment	✓	✓
QP_CURRENCY_CONVERSION	Currency Conversion		Currency Conversion	✓	✓
QP_DISCOUNT_ADJ	Discount Adjustment		Pricing Term Adjustment	✓	✓
QP_PRICE_LIST_CHARGE_ADJ	Price List Charge Adjustment		Price List Charge Adjustment	✓	✓
QP_PRICING_SEGMENT	Pricing Segment		Pricing Segment	—	✓
QP_PRICING_TERM_ADJ	Pricing Term Adjustment		Pricing Term Adjustment	✓	✓
QP_SALES_PRC_STRATEGY_AS...	Sales Pricing Strategy Assignment		Sales Pricing Strategy Assignment	✓	✓
QP_SHIPPING_CHARGE_ADJ	Shipping Charge Adjustment		Shipping Charge Adjustment	✓	✓
QP_STRATEGY_ASGMNT_FOR...	Line Strategy	Pricing strategy assignment for a li...	Line Pricing Strategy Assignment	✓	✓
QP_CHARGE_GUIDELINE	Pricing Charge Guideline		Pricing Charge Guideline	✓	✓



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Matrix classes are mapped to a matrix type. This mapping ensures that the correct matrix class is leveraged by the applicable entities in the Pricing Administration UI, as well as during price execution. On the Manage Matrix Types UI, you can assign one matrix class to a matrix type. For example, the screenshot shows a seeded matrix class named Pricing Segment. It's mapped to the Pricing Segment Matrix Type. Based on this assignment, the appropriate condition and result columns from the Price List Charge Adjustment matrix class appear in the Price List UI and can be used to create matrix rules related to attribute-based adjustments.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Pricing Matrix Types** task. Select the task in the **Pricing** functional area.

Matrix Rules

- Create multidimensional rules based on conditions and results

The first screenshot displays a matrix rule configuration for Pricing Segments. It has a header row with columns for Row, Condition Columns (Revenue Potential, Customer Size, Cost To Serve, Customer Value, Customer Rating), Result Columns (Pricing Segment), and Dates (Precedence, Start Date, End Date). Below this are several rows of data, each defining a condition set and its corresponding Pricing Segment and timing details.

Row	Revenue Potential	Customer Size	Cost To Serve	Customer Value	Customer Rating	Pricing Segment	Precedence	Start Date	End Date
High	Large	Low	High	High	High	Corporate Segment Group 1 - China	150	1/1/16 9:17 PM	mm/dd/yy h:mm a
Very high	Large	Medium	High	High	High	Corporate Segment Group 1 - UK	100	8/11/17 6:08 PM	
Medium	Medium	Medium	Medium	Medium	Medium	Corporate Segment Group 2	200	1/1/16 9:54 PM	
						Corporate Segment Group Default	1,000	1/1/16 9:54 PM	
Medium	Medium	Low	Medium	Medium	Medium	Corporate Segment Group 2 - China	250	1/1/16 9:33 PM	
Low	Small	Medium	Low	Low	Low	Corporate Segment Group 3	300	1/1/16 10:04 PM	
Very high	Large	Low	Very high	Very high	Very high	Corporate Segment Group 1	100	1/1/16 9:51 PM	

The second screenshot shows a similar matrix rule configuration for Pricing Strategies. It has a header row with columns for Row, Condition Columns (Channel Method, Pricing Segment, Transaction Type), Result Columns (Pricing Strategy), and Dates (Precedence, Start Date, End Date). Below this are several rows of data, each defining a condition set and its corresponding Pricing Strategy and timing details.

Row	Channel Method	Pricing Segment	Transaction Type	Pricing Strategy	Precedence	Start Date	End Date
		Corporate Segment Group 1 - UK		GBP Pricing Strategy	10		
		Corporate Segment Group 2 - China		Corporate Pricing Strategy-China	10		
		Corporate Segment Group 1		Corporate Pricing Strategy Group 1	10		
		Corporate Segment Group 3		Corporate Pricing Strategy	100		

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Through the matrix rules UI, you can create multidimensional qualification-based rules. These rules are based on the conditional and results columns defined in the pricing matrix classes UI. Examples of the different implementation of matrix include attribute-based adjustments on price list or discount list, or the derivation of pricing segments and strategies. These rules appear in a simple tabular format, similar to a spreadsheet. Within this UI, you can also edit the available columns of the rules table.

The first screenshot depicts the details of the rules for deriving the pricing segment in the Manage Pricing Segments page, and the second screenshot depicts the details of the rules for deriving a pricing strategy in the Manage Pricing Strategy Assignments page.

Navigation to Manage Pricing Segments Page:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Pricing Segments**.

Navigation to Pricing Strategy Assignments Page:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and select **Manage Pricing Strategy Assignments**.
3. Select Header.

Demonstration: 6-1

- Reviewing Matrixes for Pricing Segments and Strategy Assignments



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Demonstration 6-1 presents an overview of matrix classes and pricing matrix types for the matrixes that determine a pricing segment and pricing strategy for the predefined processes.

Practice 6-1: Reviewing Pricing Segment and Strategy



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In this practice, you review a pricing segment and strategy.

Summary

In this lesson, you should have learned how to:

- Price an order
- Describe what a pricing strategy is
- Explain customer pricing profiles
- Describe the purpose of a pricing segment
- Explain pricing strategy assignment
- Derive a pricing strategy for a customer
- Explain the concepts of matrixes and how they're used



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Pricing Orders: Price Lists

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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65 minutes	Lecture and Demos
50 minutes	Practice
115 minutes	Total

Learning Objectives

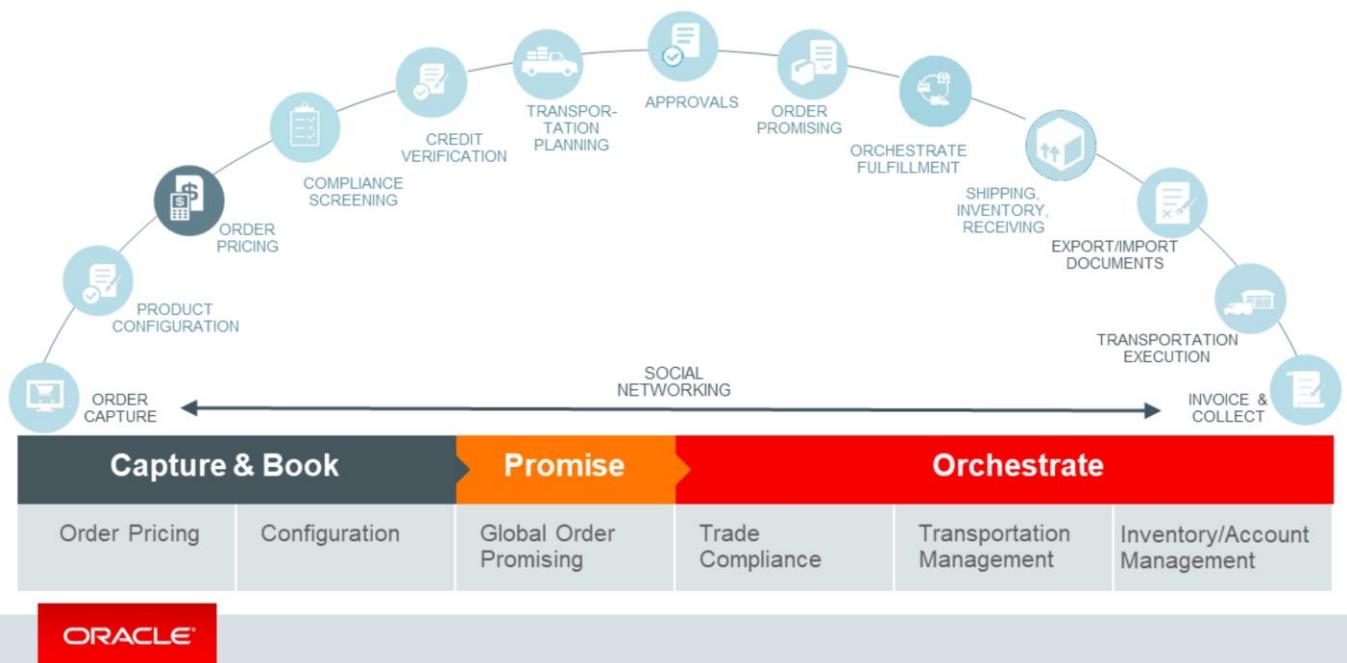


After completing this lesson, you should be able to:

- Create a price list for standard and coverage items
- Describe adjustments
- Describe pricing charges

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on price lists.

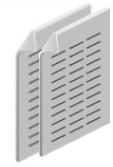
Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Price Lists



- Price lists are:
 - Defined collection of prices for items or services targeted for a set of customers for a specific period of time
 - Pricing charges - represented by a price type, charge type, and charge subtype
 - Means of capturing base list prices and other types of adjustments to arrive at the list price
 - Assigned to a pricing strategy. You can assign the same price list to multiple strategies
- You can:
 - Use multiple types of price lists
 - Import and export price lists
 - Create and add price list items to an existing price list by using file-based data import
 - Maintain pricing rules in bulk through ADFdi

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Pricing administrators can manage prices of items and services using a price list.

The base list price is an initial value assigned to an item. You can define rules to capture base list prices. You can offer a different price to a customer based on volume or other attributes.

You can also define adjustments to arrive at the list price. At runtime, the pricing engine derives the list price from the base list price, plus an adjustment.

A price list can contain multiple types of item prices, known as pricing charges. A charge is defined by a combination of price type, charge type, and charge subtype.

Options for creating and updating price lists:

- File-Based Data Import: Create price lists (one at a time), new items, and charges with tier and attribute rules. You can't update existing charges or an item on a price list.
- ADFdi: Create new items, charges, and tier rules and attribute rules, or update existing ones. You can't create a new price list.
- Define pricing charges: Price lists can contain one-time and recurring charges, for example:
 - One-time charge: Sale price of 445 U.S. Dollars (USD) for mobile phone
 - Recurring charges: User incurs monthly charges of 15 USD

Price List

The screenshot shows the 'Edit Price List' screen for 'Corporate Strategy-Sales Channel Inside Sales'. A search result for item AS46341 (Varia 8550 Tablet) is displayed. Three orange circles with numbers indicate specific points of interest:

- 1**: Points to the main search results table.
- 2**: Points to the detailed view of the charge for item AS46341.
- 3**: Points to the 'Create Charge' button in the bottom right corner of the charge details view.

Let's take a look at a price list.

A price list is a collection of prices for items or services targeted for a set of customers for a specific period of time

- 1 - This price list contains charges for many different items and services
- 2 – We're focusing on a particular item, item AS46341, and we're viewing a charge defined for it.
- 3 – We can create another charge for this item. We can also perform other actions, such as adding a tier or attribute pricing matrix.

Price Lists: Types

You can create these types of price lists:

Price List Type	Description
Segment 	Contains the pricing for a given segment. You typically capture your list prices here
GSA 	Used for U.S. General Services Administration (GSA) customers
Ceiling 	Captures the highest prices for your items in the ceiling price list and uses them as a reference
Floor 	Captures the floor (lowest) prices for items

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You can assign one or more price lists to one or more strategies. You can view the pricing strategies that are associated with the specific price list in the References tab within the Price List user interface.

Price List Use Case

Vision Corporation manages the list prices for its items on the Corporate Price List. Some items have one-time charges, while others have one-time and recurring charges.



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Consider a use case in which Vision Corporation manages the list prices for its items on the Corporate Price List. Some items have one-time charges, while others have one-time and recurring charges.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Charges

Charges are based on a calculation method of:

- Price
- Cost
- Covered item price percentage



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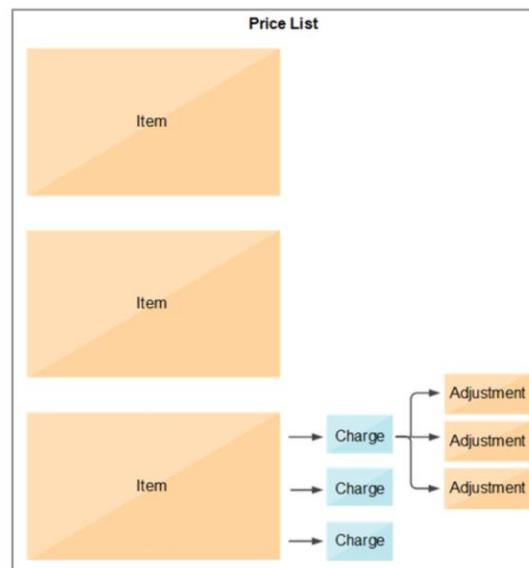
You can define charges to calculate the base list price for items and services. These charges are based on the following calculation methods:

- Price: Fixed amount
- Cost: Cost-plus pricing, which is used to derive the base price, can be a markup or markdown (discount) of the cost. You define costs on cost lists in Pricing. If you need to retrieve real-time costs for cost-plus pricing, then you can extend your pricing processes (algorithms) to call a service such as Oracle Fusion Costing.
- Covered item price percentage: Price and covered item price percentage.

Charges

- You can define charges for:
 - Standard items and services
 - Configurable items
 - Coverage items
 - Subscription items
- Define multiple charges for an item using date effectiveness
- Support adjustments for each charge
 - Tier-based
 - Attribute-based
 - Manual

Example:



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Examples of Calculations

Price: The price defined for a mobile phone is 445 USD (when based on the price calculation method).

Cost: The price of a mobile phone based on cost:

- In the price list, the markup is 55 USD.
- In the cost list, the cost of the phone for the sale price charge definition is 390 USD.
- At runtime: Cost + Markup Amount=Base List Price, which is 445 USD (when based on the cost-plus pricing calculation method).

Covered item price percentage: The warranty (a coverage item) is 15 percent of the price of the phone, which is 445 USD. The price of the coverage is 66.75 USD, which is 15 percent of 445 USD.

If you want to capture additional pricing rules against the base list price, then you can define adjustments for each pricing charge. Adjustments on the price list are tier-based or attribute-based. You can also allow manual adjustments on top of charges during order creation. You can't use tier-based and attribute-based adjustments for coverage items.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Adjustments: Tier-Based

The screenshot shows the Oracle Order Management interface for defining tier-based adjustments. It includes sections for Price, Dates, Calculation Basis, and Tiered Pricing Rules. The Tiered Pricing Rules table lists three tiers:

Minimum	Maximum	Application Method	Increment Value	Adjustment Type	Adjustment Amount	Adjustment Basis
0	10	Per unit		Discount amount	50.00 USD	
10	50	Per unit		Discount amount	100.00 USD	
50		Per unit		Discount amount	200.00 USD	

- Define volume-based adjustment on:
 - Item quantity
 - Extended amount
- Adjustment applied after base list price calculation
- Support on line or on document
- Multiple adjustment types
 - Discount amount
 - Discount percent
 - Markup amount
 - Markup percent
 - Price override

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You have the flexibility to provide volume pricing to your customers. You can define tier-based adjustments based on the ordered item quantity or on the extended amount.

You can define tier-based adjustments on top of the base list price (charge) of the item. These adjustments can be evaluated for an order line or across all the lines of an order.

Continuing the example from the Charges slide: You offered the customer a base list price of 445 USD. If you define a tier-based adjustment based on item quantity, then the customer gets a discount of:

- 50 USD per unit for quantity between 5 and 10
- 12% on the base price for quantity above 10

If a customer orders 6 mobile phones, then a 50 USD discount is subtracted from the base list price of 445. The list price is 395 USD per unit.

If a customer orders 12 mobile phones, then a 53.40 USD discount is subtracted from the base list price of 445. The list price is 391.60 USD per unit.

The screenshot shows the part of the UI where you can define tier-based adjustments. It also shows these tier-based pricing rules:

- 50 USD adjustment for a quantity up to 10
- 100 USD adjustment for quantities between 10 and 50
- 200 USD adjustment for quantity over 50

For amount-based tiers, you can specify what to aggregate on through the setup Tier Bases on the Manage Pricing Bases pages. This is a setup task where you define exactly what price element (price point) to aggregate and for which set of charges.

Navigation:

1. In the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Discount Lists**.

Adjustments: Tier-Based (continued)

Navigation

1. In the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and click **Manage Price Lists**.
3. Select a price list.

Adjustments: Attribute-Based

- Set up pricing rules based on a set of conditions or attributes
- Set up attribute-based pricing adjustments using matrix rules
 - You can define charges based on the color, size, or other attributes.
- Example: You can define adjustments for a specific customer.

Customer	Adjustment	Adjustment Type	Adjustment Basis
Vision	100	Discount Amount	
Manufact123	7.5	Discount Percent	Base List Price

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Continuing the example from the previous slide:

The table shows these columns: Customer, Adjustment, Adjustment Type, Adjustment Basis. These companies appear under Customer: Vision and Manufact123.

- Mobile phone base price=445 USD
 - The table shows that if the customer is Vision, then a 100 USD adjustment is applied to the base list price. Therefore, the list price is 345 USD.
 - The table shows that if the customer is Manufact123, then a 7.5 percent discount is applied to the base list price. The list price is 411.62 USD.

For the price adjustment matrix, you can define the attributes as conditions, and you can define the adjustment, adjustment type, and adjustment basis (for the percentage-based adjustment) as results. The adjustment basis indicates where the percentage-based discount is taken from.

Attribute-based adjustments are discussed in greater detail in lesson 8.

Adjustments: Manual

In Pricing Administration, determine whether to let order entry specialists apply manual adjustments in Order Management.

Specifically, you can let them:

- Adjust net price according to:
 - Percentage of the list price or net price
 - Amount
- Set a new value for the net price (price override)
- Apply one or more price adjustments to a charge for each order line
- Specify a reason for the price adjustment

The screenshot shows the Oracle Order Management interface. A specific charge entry for item AS21000 is selected. In the 'Price' section, there is a checkbox labeled 'Allow manual adjustment' which is checked and circled in blue. Other visible fields include 'Line Number' (1), 'Pricing Charge Definition' (Sale Price), 'Price Type' (One time), 'Charge Type' (Sale), and 'Charge Subtype' (Price).

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In the Pricing Administration work area, shown here, you determine whether to allow order entry specialists to apply price adjustments in Order Management. Select a price list, locate an item, and then select Allow Manual Adjustment on the price list charge. This screenshot depicts the Edit Price Lists page with the Price section, which is where you select the Allow Manual Adjustment check box.

Pricing validates each manual adjustment against the guidelines that you define to ensure that adjustments stay within your company's policies.

Navigation:

1. From the **Navigator**, select **Order Management**, and then select **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Price Lists**.
3. Search for a price list, such as Corporate. Select the price list.
4. On the **Edit Price List** page, search for an item.
5. Click **Create Charge**.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Pricing of Standard Items

- Standard items are items that aren't configurable
- All the pricing information we've discussed so far applies to standard items, except where indicated

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The slides that follow provide information about pricing for configurable items, coverage items, and subscription items.

Demonstration: 7-1

- Reviewing Price Lists



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Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Pricing of Configurable Items (Models)

- Define charges for a configured item and its components. Charges are rolled up to the root at runtime to provide the price of the entire configuration
 - Define adjustments only at the root
 - Define price for a model component in a price list, and apply this price to all configurator models
- Manage model-specific, component-level charges through:
 - Hierarchical view
 - Summary view



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Example: For a configured desktop called Desktop123, the root model is priced at 500 USD.

Components:

1. Hard drive option is priced at 50 USD.
2. RAM is priced at 30 USD.
3. Modem is priced at 20 USD.

At runtime, the rollup charge for the Desktop123 is 600 USD (root model+hard drive+RAM+modem charges). You must define a pricing charge for each component item of the configuration. You can set this charge to 0, but you must define a charge. Rollup charges are created when prices are executed. You can define tier-based and attribute-based adjustments only on the root item. Use the hierarchical and summary views of a price list for ease of setup and for viewing pricing of the model structure.

Define pricing once across multiple models: Define price for a model component in a price list and apply this component price to all configurator models. You can also define a price that's specific to a configurator model. This price overrides the component price. Tier-based or attribute-based adjustments don't apply in this case. They apply only to a component price.

- **Hierarchical view:** Expand the structure tree to review charges that are defined at individual levels, and understand how they contribute to the model's price.
- **Summary view:** View the entire structure using a flat summary view where you can define charges of the model and its components together.

Note: While the predefined calculations require you to define a pricing charge for each component, you can extend the logic through the pricing algorithms.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Pricing of Coverage Items

- Coverage item: An item that adds value by providing coverage for a covered item. Provides a service to another item.
- When you define coverage items you include a duration and period
 - Characterized by Service Duration Type, Service Duration, and Duration Period
 - Service Duration Type
 - Fixed
 - Variable
 - Open-Ended

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Now that you understand how items are priced, let's discuss pricing of coverage items and subscriptions.

Examples of covered items and coverage items

- Server and 6-month warranty
- MRI machine and technical support

Note: You can't use tiers and matrixes for coverage items.

Service Duration Type:

- Fixed: Duration (a number) and period (time-based UOM, such as year or month) are required. You enter the values in the Product Information Management work area, and they default as read-only on the price list and in Order Management.
- Variable: You enter the values in the Product Information Management work area. The values default in the price list, but users can specify the service duration and service duration period for the pricing rules. Similarly, the values default in the Order Management work area and the order entry specialist can change the values.
- Open-ended: No default value appears for these attributes. The order entry specialist must set them.

Based on the service duration and period, Pricing also calculates the duration extended amount for coverage items. You must set up the time-UOM mapping correctly. Otherwise, Order Management doesn't show a price. This mapping is a setup task in Order Management.

Define one-time or recurring charges as a fixed amount or as a percentage of the covered item price.

Percentage of Covered Item Price

- Calculation: Percentage of price of covered item
- Example: An extended warranty on an 49-inch HD TV might be 20% of the price of the TV and is billed once, upon purchase of the warranty.
 - 450 USD=List price for the one-time sale charge of the TV
 - 90 USD=One-time sale price of the warranty (20% of the one-time sale charge for the TV)

Duration Extended Amount for Coverage Item

- Calculation: Unit Price x Quantity x Duration x UOM=Duration Extended Amount.
- Example: The price of the Gold Warranty coverage for a laptop for three years is 10 USD for each year, with a total amount of 30 USD over the full three-year period. In this case, you have a yearly recurring charge of 10 USD, so the extended amount is 10×5 (number of laptops) =50. So, the extended amount for the duration is (10×3) 5 laptops=150 USD

Demonstration: 7-2

- Reviewing Price Lists for Coverage Items



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In this demonstration, you review price lists for coverage items.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Pricing of Subscription Items



- Subscriptions have service duration and period
- Define subscription items
 - Include a duration and period
 - Characterized by Service Duration Type, Service Duration, and Duration Period
 - Service Duration Type: Fixed, Variable, or Open-Ended
 - Calculate duration extended amount
 - Define one-time and recurring charges
 - Define tier-based and attribute-based adjustments

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Service Duration:

- Fixed: Duration (a number) and period (time-based UOM, such as year or month) are required. You enter the values in the Product Information Management work area, and they default as read-only on the price list and in Order Management.
- Variable: You enter the values in the Product Information Management work area. The values default in the price list, but users can specify the service duration and service duration period for the pricing rules. Similarly, the values default in the Order Management work area and the order entry specialist can change the values.
- Open-ended: No default value appears for these attributes. The order entry specialist must set them.

Based on the service duration and period, Pricing also calculates the duration extended amount for subscriptions. You must set up the time-UOM mapping correctly. Otherwise, Order Management doesn't show a price. This mapping is a setup task in Order Management.

Duration Extended Amount for Subscription Item

- Calculation: Unit Price x Quantity x Service Duration (Service Duration and Duration Period)
- Example: The price of a subscription for Vision Trade Magazine is 50 USD for each year. The customer orders a two-year subscription, so the calculation is: 50 USD per year x 1 subscription x 2 years (UOM=year)= 100 USD

Note: The above calculation assumes the service duration period is the same as price periodicity UOM for the price list recurring charge. If the recurring charge is set to \$10/month, and the subscription is for 2 years, then the calculation is (10/month * 1 subscription * 2 Years (24 months)) = 240

Demonstration: 7-3

- Reviewing Price Lists for Subscription Items



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In this demonstration, you review price lists for subscription items.

Topics

- Price Lists
- Charges
- Adjustments
- Pricing of Standard Items
- Pricing of Configurable Items (Models)
- Pricing of Coverage Items
- Pricing of Subscription Items
- Price List Maintenance



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Price Lists: Maintenance

Manage existing price lists using ADFdi services and a Microsoft Excel workbook:

- Search and download pricing charges based on attributes, such as Price List Description, Business Unit, Currency, Status, or Item Number
- Create and update base list prices and attribute and tier adjustments across multiple price lists
- Upload your changes



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You must create price lists before you can add or update items.

Steps to manage price lists in an Excel workbook:

1. Install the ADFdi setup tool.
2. In the Navigator, select Order Management, and then click Pricing Administration.
3. On the Overview page, click the Tasks panel tab, and click Manage Price Lists.
4. Download your pricing data to a Microsoft Excel workbook.

Practices: Overview

- Practice 7-1: Creating a Price List for a Standard Item With Multiple Charges
- Practice 7-2: Adding a New Condition Column to a Matrix Class
- Practice 7-3: Creating a Price List for a Coverage Item That Covers a Standard Item

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- Practice 7-1: This practice takes you through the process of creating a price list for a standard item with one-time and recurring charges.
- Practice 7-2: This practice takes you to the pricing setups to define an attribute pricing rule for a standard item using the matrixes feature.
- Practice 7-3: This practice takes you through creating a price list for a coverage item that covers a standard item.

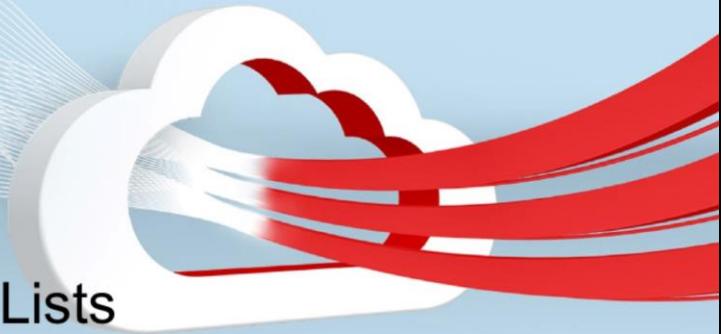
Summary

In this lesson, you should have learned how to:

- Create a price list for standard and coverage items
- Describe adjustments
- Describe pricing charges



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Pricing Orders: Discount Lists

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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35 minutes	Lecture and Demo
25 minutes	Practice
60 minutes	Total

Learning Objectives

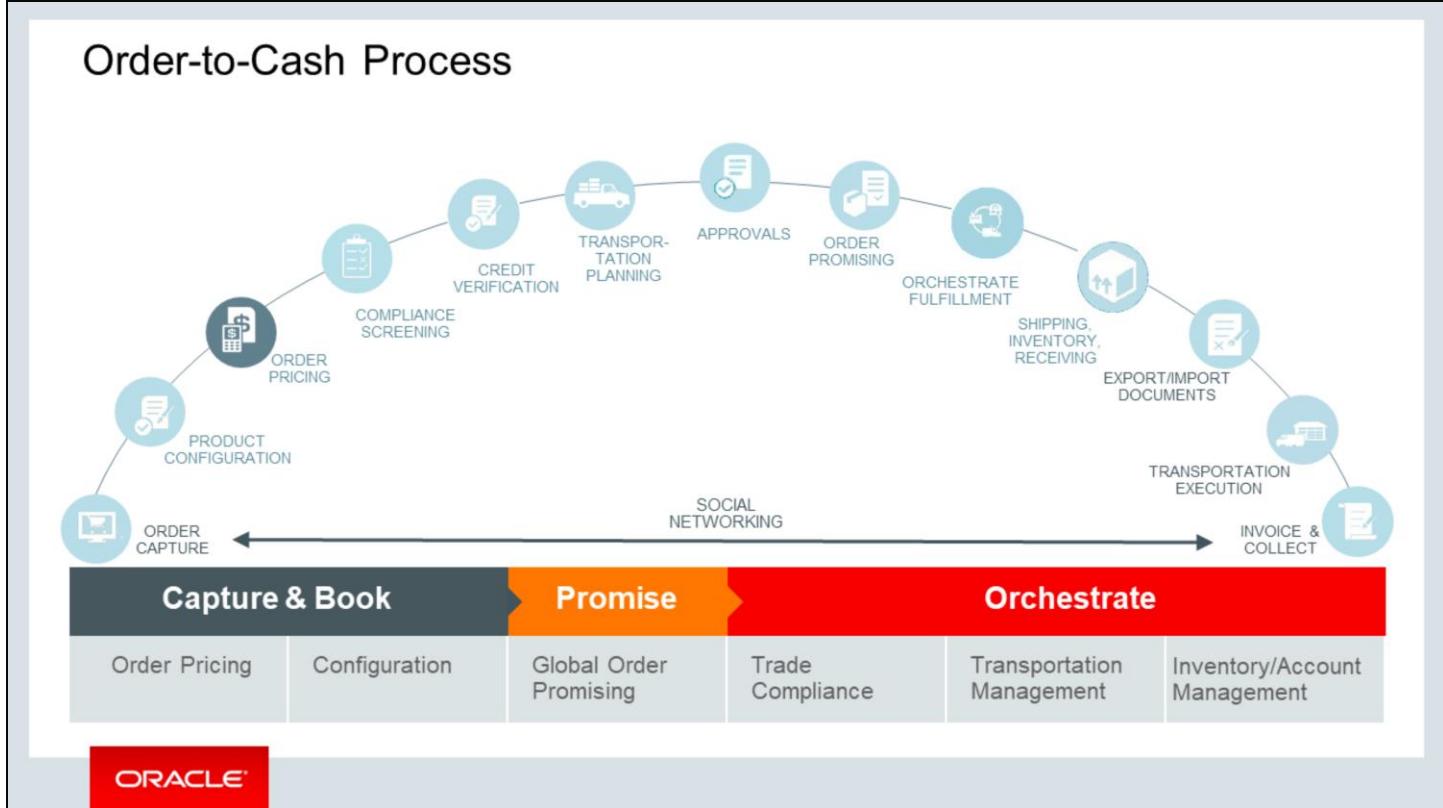


After you complete this lesson, you should be able to:

- Create a discount list
- Describe different types of discount rules
- Explain the edits you can make using ADFdi-enabled workbooks

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on discount lists.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Discount List Use Case

Vision Corporation has special discounts for key products for its top customers. Pricing administrators manage these discounts on the Corporate Discount List. This list contains discounts for standard items and for configured items. These discounts can be a simple discount, tier-based discounts, or attribute discounts.

As part of your annual pricing review of Computer Service and Rentals, you will evaluate whether you need to update these discounts to be more competitive.



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Consider this discount list use case.

Discount Lists

A discount list is a container of rules for defining discounts for:

- Standard items, services, and subscriptions
- Configured items
- Assignment of a discount list to pricing strategy

The screenshot shows the Oracle Order Management interface. At the top, there's a header with tabs like 'Item Level', 'Name', 'Description', 'Pricing UOM', 'Line Type', 'Service Duration Period', 'Service Duration', and 'Associated Items'. Below this, a table lists an item: 'AS49000C' named 'Vario 7500C Configurable Tablet' with 'Each' as the Pricing UOM and 'Buy' as the Line Type. The main content area is titled 'Item - AS49000C - Each - Buy: Discount Rules'. It shows a table for 'Discount Rule' with columns: 'Rule Name' (Simple Discount), 'Rule Type' (Simple), 'Rule Start Date' (1/9/15 3:06 PM), 'Rule End Date' (empty), 'Price Type' (One time), 'Charge Type' (Sale), and 'Charge Subtype' (Price). Below this, a section titled 'Simple Discount: Details' shows 'Adjustment Type' as 'Discount amount' and 'Adjustment Amount' as '10 USD'.

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Discount lists: Discount rules can be simple, tier-based, and attribute-based. You can define discounts, markups, or price overrides. With a discount list, you define discounts based on the price type, charge type, or charge subtype combination. For discount lists, the discount is calculated after list price. These discounts are applied at runtime to the pricing charges on the transaction that have the same price type, charge type, and charge subtype combination.

You can define various type of discounts:

- Simple, such as a holiday season discount
- Tier-based, such as a volume discount
- Attribute-based, such as discounts for all items of a particular color

You can assign one or more discount lists to one or more strategies. You can view the pricing strategies that are associated with the specific discount list in the References tab within the Discount List pages.

You can't create discounts for coverages on a discount list.

This screenshot depicts a simple discount rule associated with a configurable tablet.

Navigation:

1. From the Navigator, select Order Management, and then click Pricing Administration.
2. On the Overview page, click the Tasks panel tab and then click Manage Discount Lists.
3. Search for a discount list, such as the Corporate Discount List.
4. On the Edit Discount List page, search for an item.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Simple Discounts

The screenshot shows the Oracle Order Management interface. At the top, there's a header with 'Item' and 'AS46335 Vario 5500 Tablet Ea Buy'. Below this is a section titled 'Item - AS46335 - Ea - Buy: Discount Rules'. A red box highlights the 'Tablet - Promo - Summer: Details' section, which contains a table with one row:

Discount Rule			Apply Discount To				
* Rule Name	Rule Type	* Rule Start Date	Rule End Date	* Price Type	* Charge Type	* Charge Subtype	Price Periodicity
Tablet - Promo - ...	Simple	4/1/16 6:19 F...	m/d/yy h:mm	One time	Sale	Price	

Below the table, it says 'Columns Hidden 1'. Under the red box, there's another section titled 'Tablet - Promo - Summer: Details' with a table:

* Adjustment Type	Discount amount	* Adjustment Amount	15	USD
-------------------	-----------------	---------------------	----	-----

At the bottom left is the Oracle logo.

The screenshot depicts a discount rule. Note that you can associate a rule with an effectivity date, price type, charge type, and charge subtype.

Use a simple discount rule for creating discounts such as:

- 5% off of a one-time sale price
- 5 USD off a recurring maintenance charge

In this example:

- Base price=160 USD: Assuming no price list-level adjustments, then the list price=160 USD.
- A seasonal discount of 15 USD is applied from July to August, so net price is 145 USD (list price minus the discount).

Based on

- Standard items
- Subscription items
- Configuration (root model and components)

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab and then click **Manage Discount Lists**.
3. Search for a discount list, such as the Corporate Discount List.
4. On the **Edit Discount List** page, search for an item.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Establishing Discounts for Configurable Models

You can:

- Define discount rules for the root and for the components.
- Choose where to discount the charges
 - Root item
 - Component
 - Rollup charge
- Define tier-based and attribute-based adjustment:
 - At the root
 - Not supported for component
- Manage component-level rules through:
 - Hierarchical view
 - Summary view



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When you define a discount on the root, you can choose whether to allow discounts to the root or to the rollup charge. To apply the discount to the rollup charge, select Apply to Rollup at the root. The rollup charge is calculated at runtime.

Example: A configuration has a price of 500 USD for the root model item, and charges for the components are 50, 30, and 20 USD. You can apply a 25 USD discount on the root model item, and a 10 percent discount on the entire configuration, which is applied to the rollup charge.

You can use the hierarchical and summary views to set up and review the discount rules conveniently. The hierarchical view shows the configuration hierarchy, and the summary view shows a flat structure of the configuration.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Attribute-Based Discounts

Attribute adjustments:

- Are based on a set of conditions or attributes
- Are supported through the matrix rules
- Are based on either the root item (not components), standard item, or subscription item
- Model-specific conditions for determining the adjustment

Example: Attribute adjustments that adjust shirt prices based on the size and color of the shirt

Size	Color	Adjustment	Adjustment Type	Adjustment Basis
XL	Red	10	Markup Amount	
L		7.5	Discount Percent	Base List Price

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In some situations, you might need to calculate or adjust a price according to the attributes of the item. However, it might be too cumbersome to define these calculations for each item.

You can define attribute-based discounts for a price type, charge type, and charge subtype.

Discount list offers discounts on top of the list price at the time of execution.

This table shows the attributes of a T-shirt. The column headings are the following attributes: Size, color, adjustment, adjustment type, adjustment basis. The adjustment amount is 10 USD for red shirts of size XL. The discount percent is 7.5 for shirts of size L.

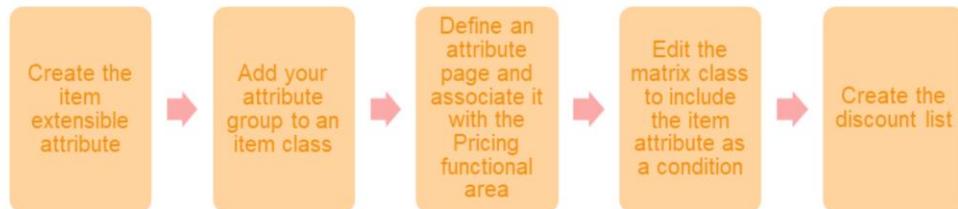
This example assumes that size and color are defined as item attributes (item extensible flexfields [UDA]) in the Product Information Management work area.

Reference item attributes in a pricing matrix, on a price list line, or on a discount list line. You can use attribute-based discounts at the All Items level and at the Item level.

Note: You can use item attributes within a pricing algorithm, including within the Price Sales Transaction algorithm.

Attribute-Based Discounts

To use item extensible attributes in Pricing:



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Steps for using item extensible attributes in Pricing:

1. Create the item extensible attribute.
2. Add the attribute group to an item class in the Product Information Management work area.
3. Define an attribute page and associate it with the Pricing functional area.
4. Edit the matrix class (Pricing Term Matrix) to include the item attribute as a condition for the matrix class.
5. Create the discount list in the Pricing Administration work area.

For full details on creating an attribute-based discount, see [Using Item Extensible Attributes in Pricing: Procedure](#) in Oracle Help Center.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Manual Adjustments

Order Management users can:

- Apply a manual adjustment to an order in Order Management
- Adjust the net price according to:
 - Percentage
 - Amount
- Set a new value for the net price (price override)
- Apply one or more price adjustments to a charge for each order line
- Specify a reason for the price adjustment



Oracle Fusion Pricing validates each manual adjustment against the guidelines that you define there to ensure that adjustments stay within your company's policies.

The step to enable manual adjustments appears in the Price Lists lesson.

Demonstration: 8-1

- Reviewing a Discount List



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This demonstration shows you the discount list and the discount rules of the standard item for the order created earlier.

Topics

- Discounts
 - Simple
 - Tier-based
 - Attribute-based
 - Manual
- Discount List Maintenance



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Discount Lists: Management

- Manage discount rules
- Manage discount lists using Oracle ADF Desktop Integration services and a Microsoft Excel workbook:
 - New discount lists
 - Enter attributes
 - Import a large number of lists in a single group
 - View and correct data validation errors that occur during import
 - Existing discount lists
 - Search and download discounts based on attributes, such as Discount List Description, Business Unit, Currency, Status, or Item Number
 - Update discounts across multiple existing discount lists
 - Upload your changes



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Steps to manage discount list using a Microsoft Excel workbook:

1. Install the ADF Desktop Integration setup tool.
2. In the Navigator, select Order Management, and then click Pricing Administration.
3. In the Pricing Administration work area, select the Tasks panel tab, and then select Manage Discount Lists.
4. Download your pricing data to a Microsoft Excel workbook.

You can import a large number of discount rules using file-based data import. Create discount list headers, access sets, items, simple rules, rules that reference attributes, and descriptive flexfield data.

Practice: 8-1

- Creating a Discount List for a Standard Item with Multiple Charges

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In this practice, you create a discount list for a standard item with rules for one-time and recurring charges with simple and tier discounts.

Summary

In this lesson, you should have learned how to:

- Create a discount list
- Describe different types of discount rules
- Explain the edits you can make using ADFdi-enabled workbooks



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Pricing Orders: Shipping Charge Lists

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule: **Timing** **Topic**

20 minutes	Lecture and Demo
NA	Practice
20 minutes	Total

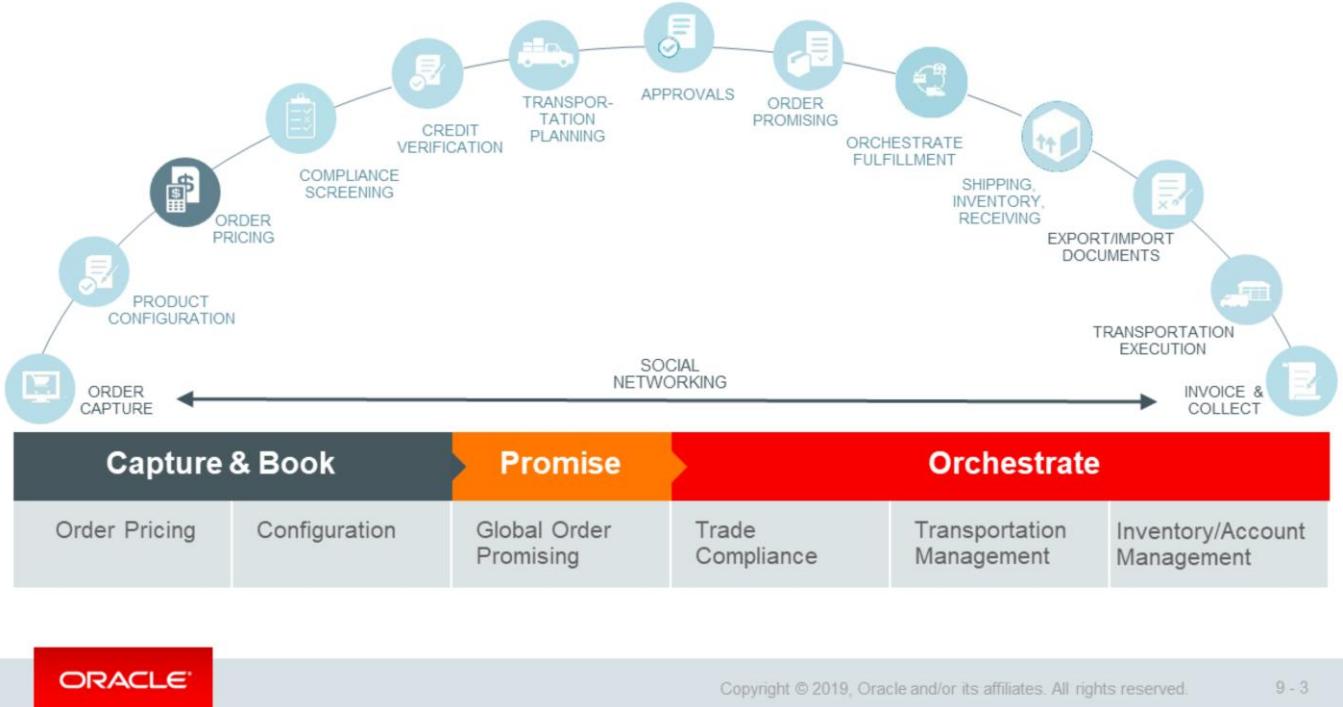
Learning Objectives



After you complete this lesson, you should be able to:

- Describe a shipping charge list
- Explain item-based shipping charges

Order-to-Cash Process



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9 - 3

The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on shipping charge lists.

Topics

- Shipping Charge Lists: Overview
- Shipping Charge List Use Case
- Defining Shipping Charges



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1 - 4

Shipping Charge Lists: Overview

Shipping charge lists

- Capture shipping charges based on the shipping method
- Multiple shipping charges for one or more items
- Item-based shipping charges
- Assign to pricing strategy



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9 - 5

As a pricing administrator for Vision Corporation, you're responsible for reviewing and determining the shipping charges for your standard and configured items. You can define multiple shipping charges for one or more standard or configured items. You can create shipping rules to calculate freight, duty, handling, and insurance charge on a shipping charge list. If multiple rules exist, then the shipping charge is applied for each line. For example, for a given shipping method for an item, if there are rules for 10 USD freight and 15 USD handling charges, then Pricing returns two charges for that line. When you create item charges, you can define shipping charges for multiple items, each with multiple shipping methods with different charge definitions. The charges are then created. You edit the amount and dates on the edit page.

Defining shipping charges for a configured item is very similar to creating shipping charges for standard items. You can create shipping charges only for the root item of the configuration.

You can assign one or more shipping charge lists to one or more strategies. You can view the pricing strategies that are associated to the specific shipping charge list in the References tab within the Shipping Charge List pages.

Navigation:

1. In the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab, and then select **Manage Shipping Charge Lists**.
3. On the **Manage Shipping Charge Lists** page, click the **Create** button to launch **Shipping Charge Lists**. Complete the mandatory fields and click **Save and Edit**.
4. On the **Edit Shipping Charge Lists** page, select the **Items** subtab under the **Shipping Charges** tab.
5. On the **Items** subtab, create an item charge.

Topics

- Shipping Charge Lists: Overview
- Shipping Charge List Use Case
- Defining Shipping Charges



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1 - 6

Shipping Charge List Use Case

Vision Corporation manages the shipping charges for standard and configured products on the corporate shipping charge list. You are a pricing administrator responsible for reviewing the pricing strategy for Computer Service and Rentals.

As part of the annual pricing review, you will review the details of the corporate shipping charge list for the handling charges for the carriers DHL and UPS.



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9 - 7

Familiarize yourself with this use case. You'll examine a shipping charge list.

To understand more about carriers, see the lesson "Shipping Orders: Basic Setup."

Topics

- Shipping Charge Lists: Overview
- Shipping Charge List Use Case
- Defining Shipping Charges



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1 - 8

Define Item-Based Shipping Charges

- An item can have multiple shipping charges, each for a different shipping method
- Date effectiveness for item, shipping method, and shipping charge definition combination
- When a configured item is priced, only the shipping charges at the root model item are applied

Item	Shipping Method	Shipping Charge Definition	Shipping Charges
AL123	ABC-Air-Standard	Freight	\$10.00
AL123	XYZ-Air-2 days	Freight	\$12.00
AL123	XYZ-Air-2 days	Handling	\$5.00



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By default, Oracle Fusion Pricing provides these pricing charge definitions for shipping charges:

- Duty
- Freight
- Handling
- Insurance

Note: You can also define your own charge definitions, if needed.

The table above shows multiple shipping charges for item AL123. The rows contain this information:

- First row: Shows a shipping method of Air-Standard with a shipping charge definition of Freight, and a shipping charge of 10 US Dollars (USD)
- Second row: Shows a shipping method of XYZ-Air-2 days with a shipping charge definition of Freight, and a shipping charge of 12 USD
- Third row: Shows a shipping method of XYZ-Air-2 days with a shipping charge definition of Handling, and a shipping charge of 5 USD

If an order is placed for item AL123 with shipping method XYZ-Air-2 days, then a 12 USD freight charge and a 5 USD handling charge are applied to the order line.

Create Shipping Charges

The screenshot shows the Oracle Order Management interface. On the left, there is a 'Search Results' table with columns: Status, Line Number, Base Price, Calculation Method, Allow Manual Adjustment, Charge Level, and Start Date. A red box highlights the 'Actions' dropdown menu in this table. An arrow points from this box to the text 'Select charge attributes'. On the right, there is a 'Create Item Charge' dialog box. It contains sections for 'Shipping Method' (with DHL options selected), 'Pricing Charge Definition' (with Freight selected), 'Line Type' (with Buy selected), 'Items' (listing AS4751100 as a Vision Slimline 5100 Tablet), and 'Charge Details' (with Start Date set to 7/1/19 12:00 AM, End Date to 11/22/19 12:00 AM, Calculation Method set to Price, and Base Price set to 300.00 USD). Another red box highlights the 'Start Date' field in the 'Charge Details' section, with an arrow pointing to the text 'Select date effectiveness'.

You can create shipping charges through a different user flow than the other pricing entities. You can create these rules first all at once. After the rules are created, you can edit the rule details.

These screenshots show where you create the charge, in the Create Item Charge window.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page of the **Pricing Administration** work area, click the **Tasks** panel tab, and then select **Manage Shipping Charge Lists**.
3. Search for a shipping charge list, such as the **Corporate Shipping Charge List**, and then select it.
4. On the **Edit Shipping Charge List** page, click the **Items** tab.
5. In the **Search Results** area, click **Create**, and then select **Create Item Charge**.

Demonstration: 9-1

- Reviewing a Shipping Charge List



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9 - 11

This demonstration shows a shipping charge list.

Summary

In this lesson, you should have learned how to:

- Describe a shipping charge list
- Explain item-based shipping charges



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1 - 12



Pricing Orders: Guidelines

Part 2: Capturing Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	20 minutes	Lecture and Demo
	NA	Practice
	20 minutes	Total

Learning Objectives

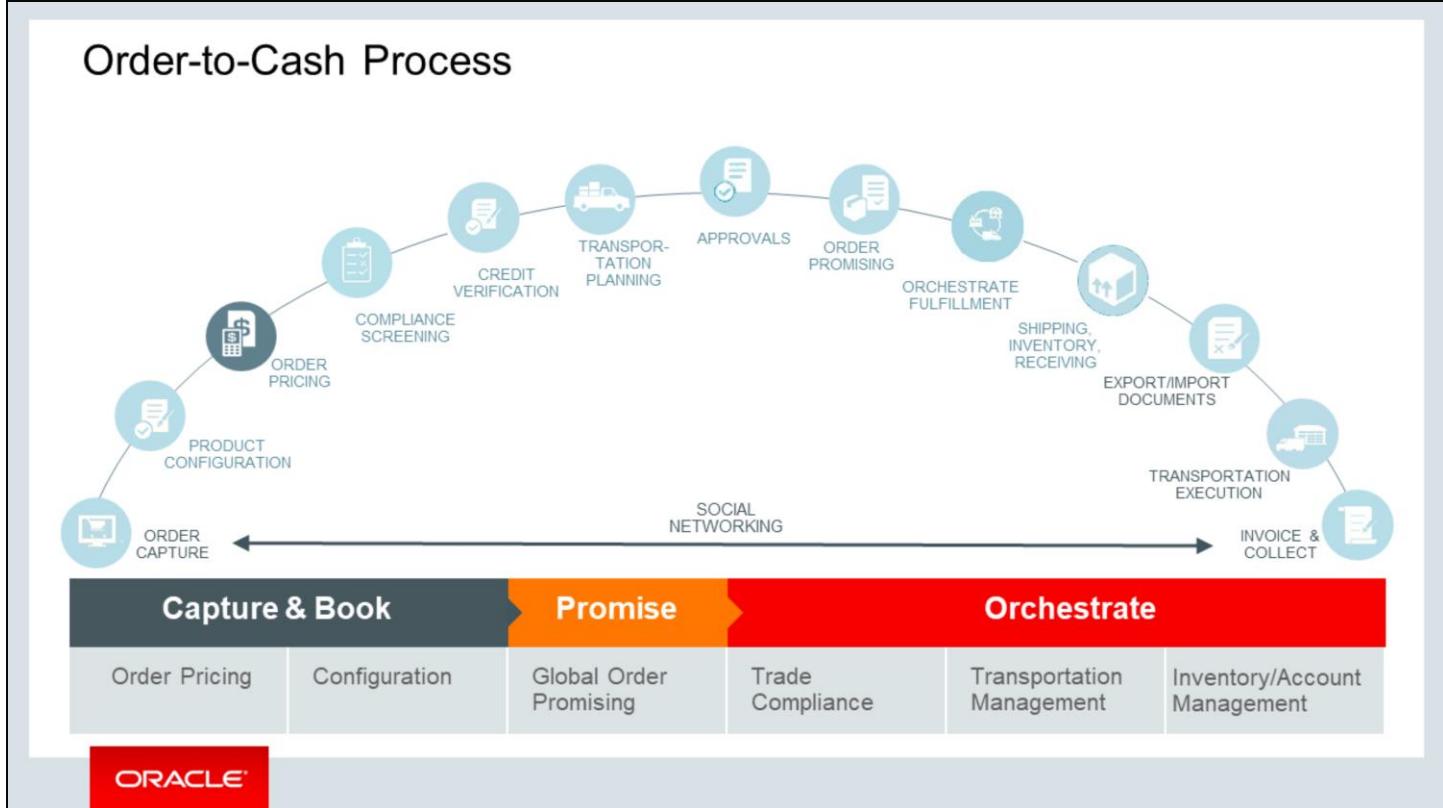


After you complete this lesson, you should be able to:

- Describe guidelines
- Explain how guidelines are used in the context of manual price adjustments and overall pricing

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on guidelines.

Topics

- Guidelines: Overview
- Guidelines: Setup



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Guidelines: Overview

- Use guidelines to enforce your organization's pricing policies.
- Guidelines are assigned to a pricing strategy.

The screenshot shows three panels related to managing price guidelines:

- Charge Guideline Components:** A table where a row for "Your Price" is selected. A red box highlights "Your Price". A callout points to it with the text "Charge component and item that the guideline applies to".
- Your Price - Absolute value: Charges Guidelines:** A search results page showing one result for "Your Price". A red box highlights "AS54888". A callout points to it with the text "Conditions and violations for guideline".
- Item - AS54888 - Price: Charge Guideline Rules:** A table showing two rows of rules. The first row has a constraint value of 5,000 and a violation type of "Information only". The second row has a constraint value of 3,000 and a violation type of "Error". A red box highlights the second row. A callout points to it with the text "Conditions and violations for guideline".

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You can create guidelines to enforce your organization's pricing policies during ordering and pricing. A pricing administrator sets up the guidelines. Then, when order entry specialists take orders, the prices are validated automatically against the guidelines.

You can define guidelines for specific charge components based on your organization's business requirements. A guideline is specific to a charge component. For example, you can create a guideline for manual adjustments or for the net price. The guideline calculation types include absolute value, discount amount, discount percentage, or percentage of.

An order is validated against the guidelines at save, customer update, repricing, and validation. When you submit an order, the complete transaction is validated. At line pricing events and when a manual adjustment is applied, only the specific line is validated. Guidelines associated with the strategy of the transaction are evaluated. Only one strategy applies for an entire order.

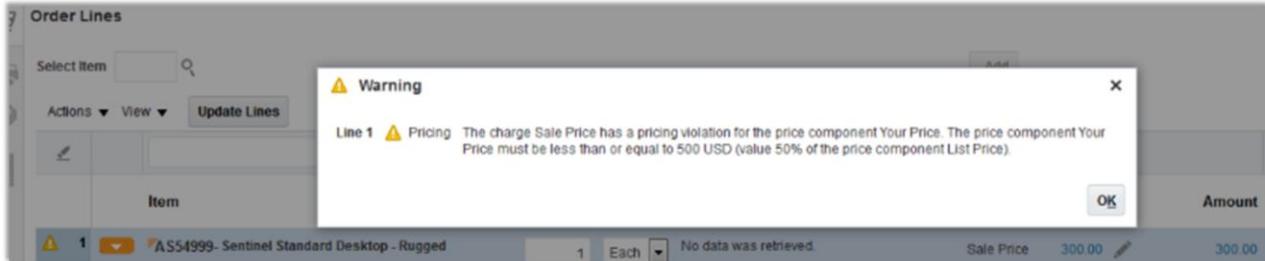
In the screenshot, a guideline is in place for component Your Price (the net price) for item AS54888. If the price goes below 5000, then an information-only violation is returned. If the price goes below 3000, then an error type violation is returned.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. In the **Pricing Administration** work area, click the **Tasks** panel tab, and then select **Manage Guidelines**.
3. On the **Manage Guidelines** page, search for a guideline. Select the guideline in the **Search Results** and click the **Edit** icon.

Guideline Validation

- Orders are validated against the guidelines, and warnings describe deviations from the policies.



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If a guideline is violated, then a violation message appears to the order entry specialist. All violations, irrespective of type, are only treated as warnings when displayed in Order Management, meaning that order entry specialists can submit an order even if it has a violation.

The screenshot above depicts a message that says that a price adjustment in row 2 contains a warning. The warning says that the charge has a pricing violation for the price component Custom Adjustment. This price component must be less than or equal to 100 USD.

Navigation:

- From the **Navigator**, select **Order Management**, and then click **Order Management**.
- In the **Order Management** work area, create an order and then edit the price.

Topics

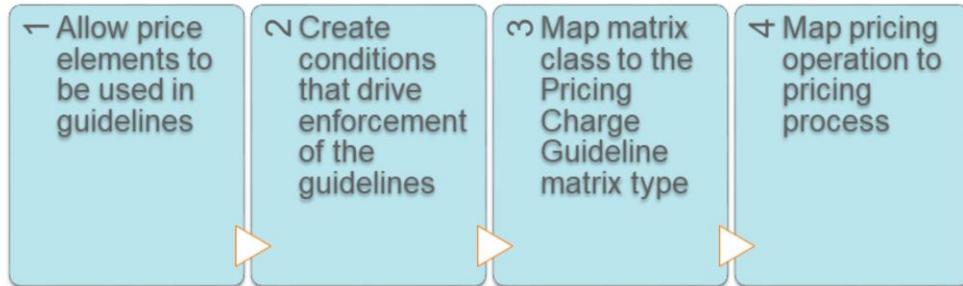
- Guidelines: Overview
- Guidelines: Setup



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Guidelines: How Do I Set Them Up?

Summary of setups:



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Here are the high-level steps for setting up guidelines:

1. Make price elements eligible for use in creation of guidelines.
2. Use the Pricing Charge Guideline matrix class to create the conditions that drive enforcement of the guidelines.
3. Make sure the matrix class is mapped to the Pricing Charge Guideline matrix type.
4. Make sure the pricing operation is mapped to the pricing process.

Make Price Elements Eligible for Use in Guidelines Creation

Actions ▾	View ▾	Format ▾	Detach	Wrap	Predefined	* Element Code	* Element Name	* Type	Used in Pricing Guidelines	Active
▶	✓	QP_BASE_CEILING_PRICE	Base Ceiling Price		Price	—	—	—	✓	✓
▶	✓	QP_BASE_FLOOR_PRICE	Base Floor Price		Price	—	✓	—	✓	✓
▶	✓	QP_BASE_GSA_PRICE	Base GSA Price		Price	—	—	—	✓	✓
▶	✓	QP_BASE_LIST_PRICE	Base List Price		Price	—	—	—	✓	✓
▶	✓	QP_CUSTOM_ADJUST...	Manual Adjustment		Adjustment	✓	—	—	✓	✓
▶	✓	QP_DISCOUNT_ADJ	Discount Line Adjustment		Adjustment	—	—	—	✓	✓
▶	✓	QP_DISCOUNT_LINE_A...	Discount Line Attribute Adjustment		Adjustment	—	—	—	✓	✓
▶	✓	QP_FLOOR_PRICE	List Floor Price		Price	—	—	—	✓	✓
▶	✓	QP_GSA_PRICE	GSA Price		Price	—	—	—	✓	✓

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Enable price
elements for
guidelines

First, indicate against what price elements pricing administrators can create guidelines. If you select a check box on the Manage Price Elements page, then the price element appears in the Component value in the Charge Guideline Components region on the Manage Guidelines page.

This screenshot depicts the Manage Price Elements page with several predefined price elements.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. Select the **Order Management** offering.
3. Search for the **Manage Price Elements** task. Select the task in the **Pricing** functional area.
4. Select **Active=Yes**, and then click **Search**.

Create Conditions in the Pricing Matrix Class

The screenshot shows the Oracle Order Management interface for creating conditions in a Pricing Matrix Class. The main title is "Edit Matrix Class: Pricing Charge Guideline". The "Condition Columns" section is highlighted with a red arrow pointing to a red callout box containing the text: "Define the conditions to drive guideline rules". The "Result Columns" section is also visible below it.

Condition Columns:

Display Sequence	* Name	* Source Code Name	* Comparison	* Compare to Attribute	Required	Allow Null	Null Is Wildcard	Domain

No data to display.

Result Columns:

* Name	* Source Code Name	Required	Allow Null	Domain
Constraining Value	ConstrainingValue	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Number
Violation Type	ViolationType	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lookup: ORA_OP_GUIDE_VIOLATIONS_TYPES

Use the predefined pricing matrix class called Pricing Charge Guidelines. You can manage the conditions that drive your guideline rules. When the order is subjected to the guidelines, Pricing returns the constraining value and violation type, such as error, information only, or warning.

This screenshot depicts the Edit Matrix Class page, with its Condition Columns and Result Columns.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Pricing Administration**.
2. On the **Overview** page, click the **Tasks** panel tab. Select **Manage Matrix Classes** under Pricing Configuration.
3. Select **Pricing Charge Guideline**.

Map a Matrix Class to the Pricing Charge Guideline Matrix Type

Actions ▾ View ▾ Format ▾ + X Detach Wrap					
* Matrix Type Code	* Name	Description	Dynamic Matrix Class	Allow Multiple Matrixes	Active
QP_COST_LIST_CHARGE_ADJ	Cost List Charge Adjustment		Cost List Charge Adjustment	✓	✓
QP_CURRENCY_CONVERSION	Currency Conversion		Currency Conversion	✓	✓
QP_DISCOUNT_ADJ	Discount Adjustment		Pricing Term Adjustment	✓	✓
QP_PRICE_LIST_CHARGE_ADJ	Price List Charge Adjustment		Price List Charge Adjustment	✓	✓
QP_PRICING_SEGMENT	Pricing Segment		Pricing Segment	—	✓
QP_PRICING_TERM_ADJ	Pricing Term Adjustment		Pricing Term Adjustment	✓	✓
QP_SALES_PRC_STRATEGY_AS...	Sales Pricing Strategy Assignment		Sales Pricing Strategy Assignment	✓	✓
QP_SHIPPING_CHARGE_ADJ	Shipping Charge Adjustment		Shipping Charge Adjustment	✓	✓
QP_STRATEGY_ASGMNT_FOR_...	Line Strategy	Pricing strategy assignment for a li...	Line Pricing Strategy Assignment	✓	✓
QP_CHARGE_GUIDELINE	Pricing Charge Guideline		Pricing Charge Guideline	✓	✓

Set up the mapping of the matrix class to the Pricing Charge Guideline matrix type

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Make sure that the correct matrix class is mapped to the Pricing Charge Guideline matrix type.

This screenshot depicts the Pricing Charge Guideline matrix type, along with other matrix types.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. Select the **Order Management** offering.
3. Search for the **Manage Pricing Matrix Types** task. Select the task in the **Pricing** functional area.

Map the Pricing Operation to the Pricing Process

Manage Pricing Process Assignments		
Actions ▾ View ▾ Format ▾ + X Wrap Update SDO		
* Pricing Operation	* Process Name	Process Description
Calculate totals for charges	Calculate Sales Totals	Calculates totals for Sales documents (Quotes, Sales Agreements, Orders).
Accumulate sales transactions	Accumulate Sales Transactions	Calculates total accumulation units and contributions for the request passed in. This delegates to individual accumulation algorithms based on accumulation basis unit code.
Calculate sales order totals	Calculate Sales Order Totals	Calculates totals for Sales documents (Quotes, Sales Agreements, Orders).
Get sales pricing strategy	Get Sales Pricing Strategy	This Process is used to get the Pricing Segment and Pricing Strategy for the Sales Documents (Quotes, Sales Agreements, Orders).
Price sales transactions	Price Sales Transactions	Calculates prices for Sales documents (Quotes, Sales Agreements, Orders).

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The mappings from the pricing operation to the pricing process are predefined, but you can update the pricing process.

This screenshot depicts the Manage Pricing Process Assignments page, where the mappings are defined.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. Select the **Order Management** offering.
3. Search for the **Manage Pricing Process Assignments** task. Select the task in the **Pricing** functional area.

Demonstration: 10-1

- Adding a Pricing Charge Guideline



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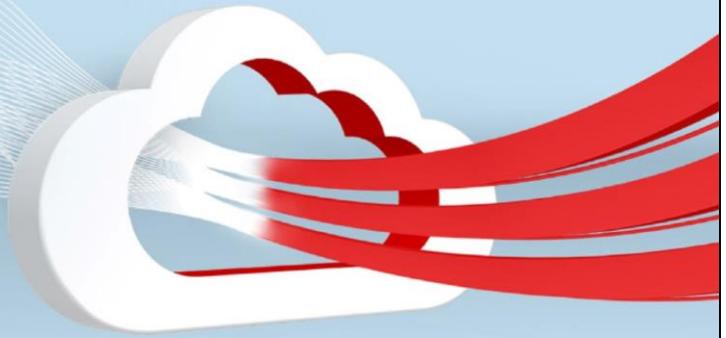
Summary

In this lesson, you should have learned how to:

- Explain how guidelines are used in the context of manual price adjustments and overall pricing
- Create a guideline



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Submitting Orders

Part 3: Submitting Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture
	NA	Practice
	15 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Name some actions that occur automatically when you submit an order
- Explain what happens when a sales order fails validation
- Explain what happens when a sales order passes validation

Topics

- Order Submission
- Defaulting Extensions
- Validations
- Credit Check
- Global Trade Management

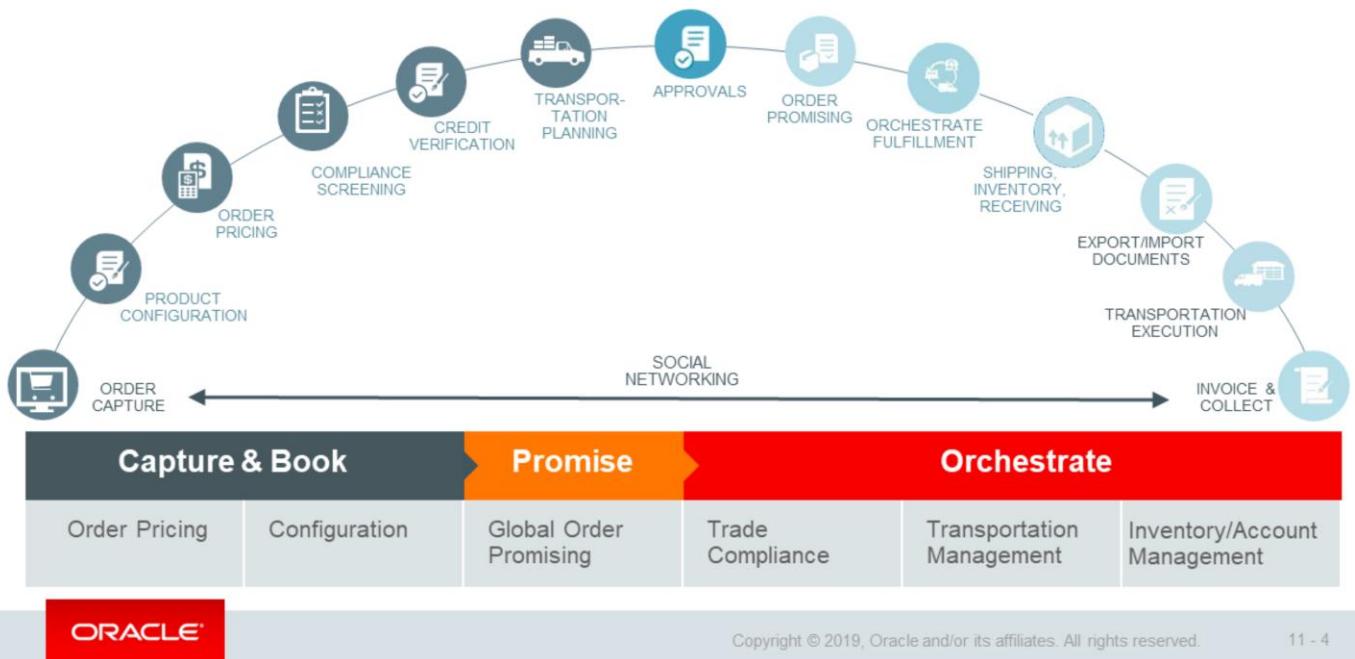


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Order-to-Cash Process



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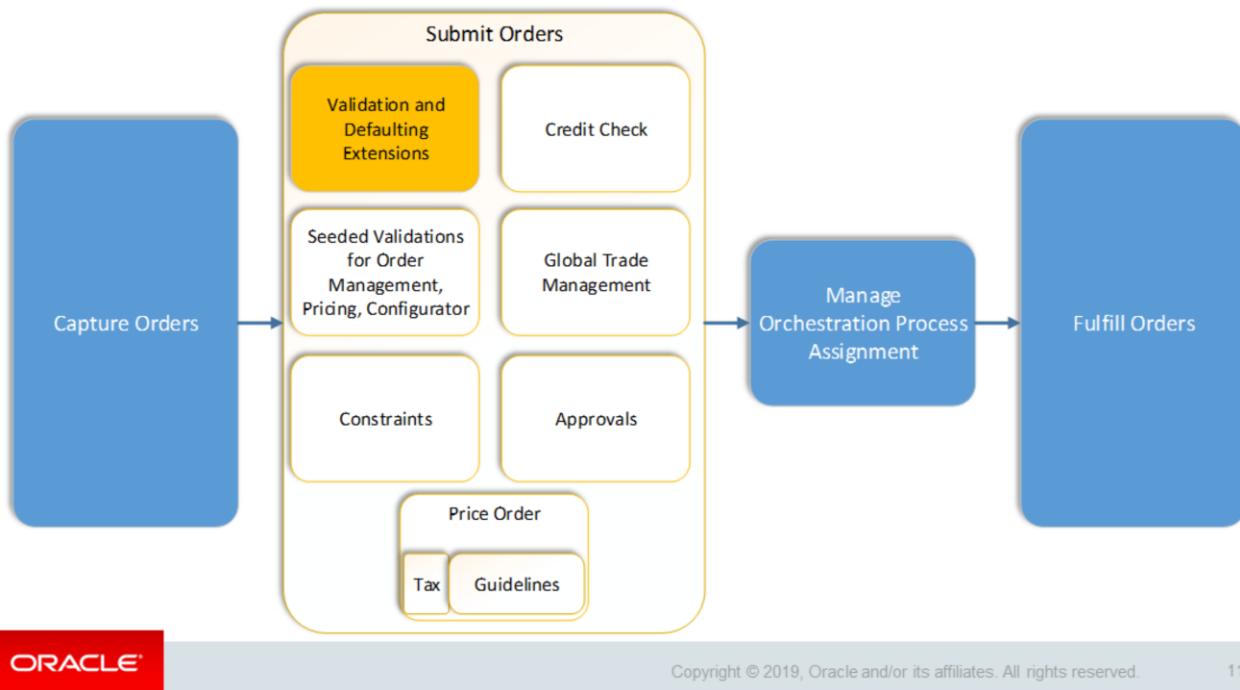
11 - 4

The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as order submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on order submission.

Order Submission



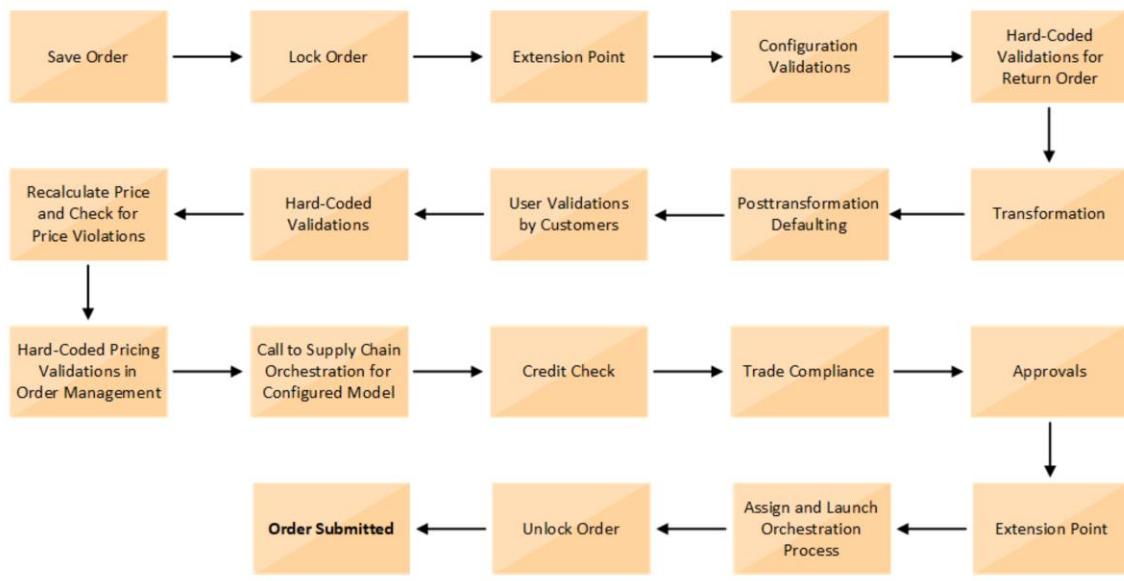
Order submission is the next stage of the order management and fulfillment process. After the order entry specialist clicks Submit in Order Management, several actions occur automatically. In this lesson, you learn about these actions, and find out how to enable them. Some actions have lessons of their own because the action requires an involved explanation.

The graphic depicts the order fulfillment flow from order capture to order fulfillment. First orders are captured. Then, at order submission, the automatic actions that may occur include:

- Validate order and default extensions
- Apply seeded validations for Order Management, Pricing, and Configurator
- Apply constraints. We cover this information in its own lesson in the Submitting Orders module.
- Determine the price of the order, including calculate tax and validate pricing against guidelines
- Check credit
- Global Trade Management
- Approvals: This information is covered in its own lesson in the Submitting Orders module.

After order submission, an orchestration process is assigned to each fulfillment line and then orders are fulfilled.

Detailed Order Submission Process



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This graphic depicts the detailed steps that occur during order submission.

Note: If any errors occur before an extension point, then the process rolls back to the beginning.

Steps

1. Save order
2. Lock order (No changes allowed by user or import)
3. Extension point (On start of submission request)
4. Configuration validations (Run latest set of rules)
5. Hard-coded validations for return order
6. Transformation (Skipped if imported)
7. Posttransformation defaulting (Skipped if imported)
8. User validations by customers (Constraints – Operation = Submit)
9. Hard-coded validations (Header, line, etc.)
10. Recalculate price and check for price violations (Includes manual price adjustment)
11. Hard-Coded Pricing Validations in Order Management
12. Call to Supply Chain Orchestration for Configured Model (For configure-to-order flows only)
13. Credit Check (Needs rollback) Payments (No rollback needed)
14. Trade Compliance (Rollback needed only if user cancels submission while pending response)
15. Approvals (Rollback needed in case of user cancellation only)_
16. Extension point (On end of submission request)
17. Assign and launch orchestration process
18. Unlock order (No changes allowed by user or import)
19. Order submitted

Topics

- Order Submission
- Defaulting Extensions
- Validations
- Credit Check
- Global Trade Management



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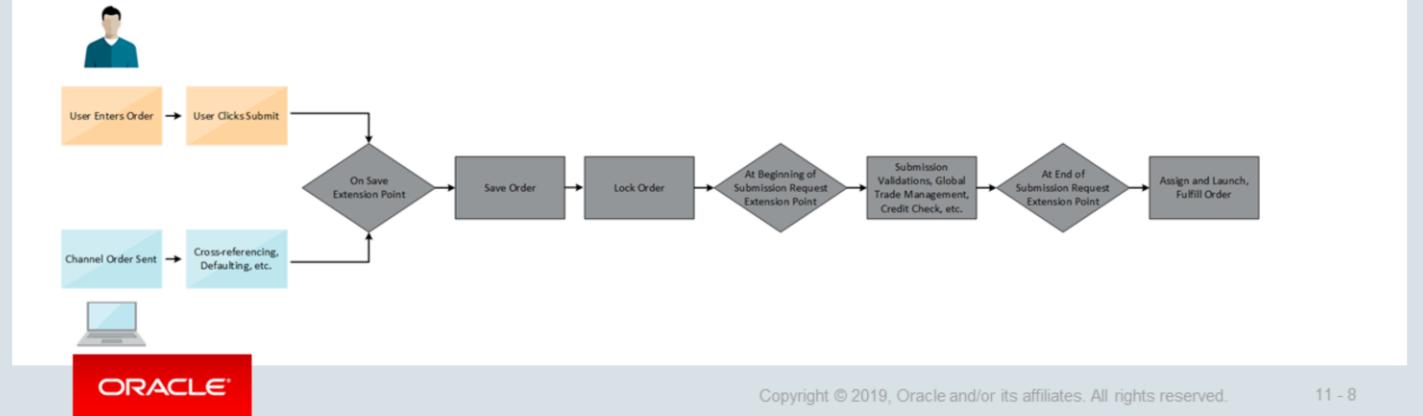
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Order Submission and Defaulting Extensions

Order Management extension: A Groovy script that you write that programmatically changes logic or changes the Order Management deployment.

When it comes to order submission, you can write extensions that

- Validate the order
- Set default values on the order



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Order Management extension: A Groovy script that programmatically changes logic or changes the Order Management deployment.

Extension point: An event that you specify to determine when to run the Order Management extension. You can use a flexfield to modify the data model and Page Composer to modify the user interface. But you must use an Order Management extension to programmatically modify logic or modify your Order Management deployment.

These steps show how extension points fit in the order management flow, assuming a user submits the order:

1. User enters order
2. User clicks Submit
3. On Save extension point. If the order fails validation, then the order is rejected, meaning it's not saved.
4. Save order
5. Lock order
6. At Beginning of Submission Request extension point. If the order fails validation, then the order is reverted to draft and errors are shown.
7. Submission validations, Global Trade Management, credit check, etc.
8. At End of Submission Request extension point. If the order fails validation, then the order is reverted to draft and errors are shown.
9. Assign and launch, fulfill order

Defaulting Extensions (continued)

These steps show how extension points fit in the order management flow, assuming the order comes from a channel system:

1. Channel order sent
2. Cross-referencing, defaulting, etc.
3. On Save extension point. If the order fails validation, then the order is rejected, meaning it's not saved.
4. Save order
5. Lock order
6. At Beginning of Submission Request extension point. If the order fails validation, then the order is reverted to draft and errors are shown.
7. Submission validations, Global Trade Management, credit check, etc.
8. At End of Submission Request extension point. If the order fails validation, then the order is reverted to draft and errors are shown.
9. Assign and launch, fulfill order

We'll discuss extensions in more detail in the next lesson.

Topics

- Order Submission
- Defaulting Extensions
- Validations
- Credit Check
- Global Trade Management



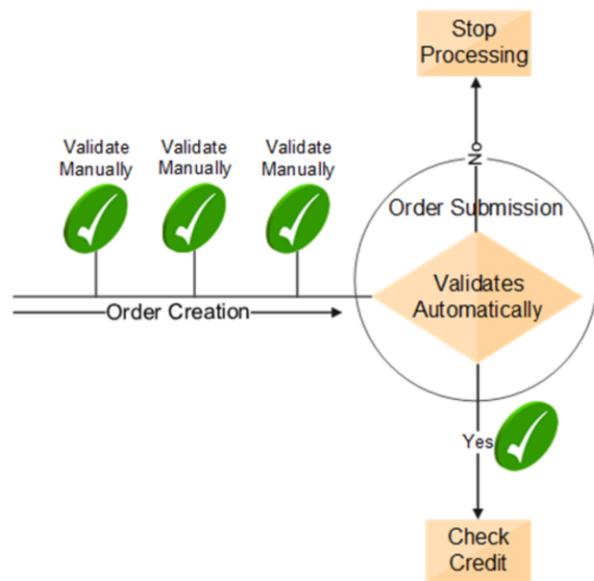
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Validations

- Before submission, you can validate an order manually
- At submission, Order Management validates sales orders automatically
 - Verifies required attributes
 - Checks errors related to constraints, pricing, configuration, and taxes
 - If the sales order validation
 - Passes, then the process checks the credit (if this step is part of orchestration process)
 - Fails, then processing stops and the order is in Draft status



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Order Management has predefined validations, so you don't have to define any of your own. However, you have the option of defining your own validations.

Credit is checked at submission of the order if you set the order management parameter Activate Credit Check on Order Submit to Yes. In that case, it calls the credit check service in Receivables. If you set this parameter to No, then Order Management orchestrates fulfillment.

Managing Configurator Behavior with Order Management Parameters

These parameters influence Configurator behavior in Order Management:

- Allow Changes Through Configurator Validation
- Configuration Effective Date
 - Ordered Date
 - Configuration Date
 - Current Date
 - Requested Date
- Halt Configurator Validation on First Error
 - True
 - False
- Item Validation Organization



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Allow Changes Through Configurator Validation: Let Configurator select items in a configuration and modify configuration options after the order entry specialist adds a configured item to a sales order. Configurator then saves the sales order as a draft before the order entry specialist submits the sales order. During order import, changes to the configuration during validation don't result in errors.

Configuration Effective Date: Specify the date that Order Management uses to configure options that it displays for a configured item. The configurable options it displays might vary depending on the date you specify.

- Ordered Date: Use configure options that the configurator defines according to the ordered date on the Create Order page.
- Configuration Date: Use configure options that the configurator defines when you configure the item.
- Current Date. Use configure options that the configurator defines as of today.
- Requested Date. Use configure options that the configurator defines as of the requested date.

If you don't specify Configuration Effective Date, then Order Management uses Current Date.

Halt Configurator Validation on First Error:

- True: Stop processing on the first error that the configurator encounters during order entry.
- False: Continue processing if the configurator encounters an error during order entry. Allow configurator to continue to run until it finishes processing. This setting allows the configurator to identify and report all errors that the configuration contains.

Item Validation Organization: Specify the item validation organization that Order Management uses to validate and display items for each sales order the Order Entry Specialist creates, according to business unit. Order Management displays only the items that it associates with the item validation organization you specify.

Topics

- Order Submission
- Defaulting Extensions
- Validations
- Credit Check
- Global Trade Management



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Credit Check

The screenshot shows the 'Manage Order Management Parameters' page with the 'General' tab selected. Under the 'Parameter Name' column, the 'Activate Credit Check on Order Submit' parameter is highlighted with a red box. In the 'Activate Credit Check on Order Submit: Values' section, a table lists business units: 'All business units' (selected), 'US1 Business Unit', 'UK Business Unit', and 'France Business Unit'. The 'Activate Credit Check on Order Submit' column for 'All business units' is set to 'Yes'.

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- Verifies that your customer has enough credit available to cover the cost of purchase.
- Can occur at order submission. However, if a fulfillment process spans several months, you may want to run the credit check right before shipping also.
- This screenshot shows the Manage Order Management Parameters page. The “Activate Credit Check on Order Submit” appears highlighted, along with the business unit in the detail area. If you select this parameter, then credit is checked at order submission.

Navigation:

1. From the **Navigator**, click **Others** and then select **Setup and Maintenance**.
2. On the **Setup** page, select the Order Management offering.
3. Search for, and then open **Manage Order Management Parameters**.

Credit Check Failure

The screenshot shows the 'Manage Order Management Parameters' page. The 'General' tab is selected. A table lists parameters under the 'Parameter Name' and 'Parameter Description' columns. One row, 'Credit Check Failure at Order Submit', is highlighted with a red border. Below the table, a section titled 'Credit Check Failure at Order Submit: Values' contains a dropdown menu. The menu has three options: 'Submit the Order with Hold on lines that failed Credit Check' (selected), 'Save Order in Draft Status', and 'Submit the Order with Hold on lines that failed Credit Check'. The 'Submit the Order with Hold on lines that failed Credit Check' option is also highlighted with a red border.

Let's assume you set the parameter to Yes. Let's see what happens after the credit check service runs:

- Credit check passes. Receivables sends the result to Order Management, and Order Management orchestrates fulfillment.
- Credit check fails: Credit check continues.

Use another credit check parameter to determine what to do with credit check failures. In the Credit Check Failure at Order Submit parameter, shown in the screenshot, select:

- Save Order in Draft Status: Save sales order in Draft status and don't proceed to fulfillment. Wait for credit analyst to approve or decline.
- Submit the Order with Hold on Lines That Failed Credit Check: Save sales order in Processing status, place a hold on each order line that failed credit check, and then send order lines that aren't on hold to fulfillment.

Receivables creates a case folder for the credit request and determines credit status.

Topics

- Order Submission
- Defaulting Extensions
- Validations
- Credit Check
- Global Trade Management



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Global Trade Management

If you integrated Global Trade Management with Order Management, then Global Trade Management may perform these actions upon order submission:

- Verify that your sales order passes any trade compliance rules that your organization set up
- Screen for export compliance
- Determine license

You can set up these checks to run during order submission and/or during fulfillment.



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You can integrate Global Trade Management with Order Management.

Compliance checks can occur at order submission. However, if a fulfillment process spans several months, you may want to run the compliance checks again right before shipping.

Summary

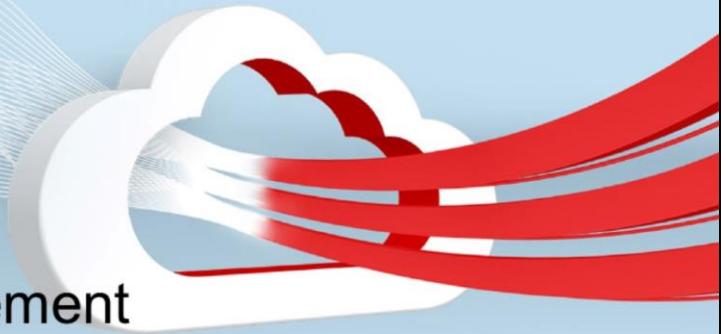
In this lesson, you should understand what happens upon order submission.



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Extending Order Management

- Part 3: Submitting Orders
- Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	25 minutes	Lecture
	NA	Practice
	25 minutes	Total

Learning Objectives

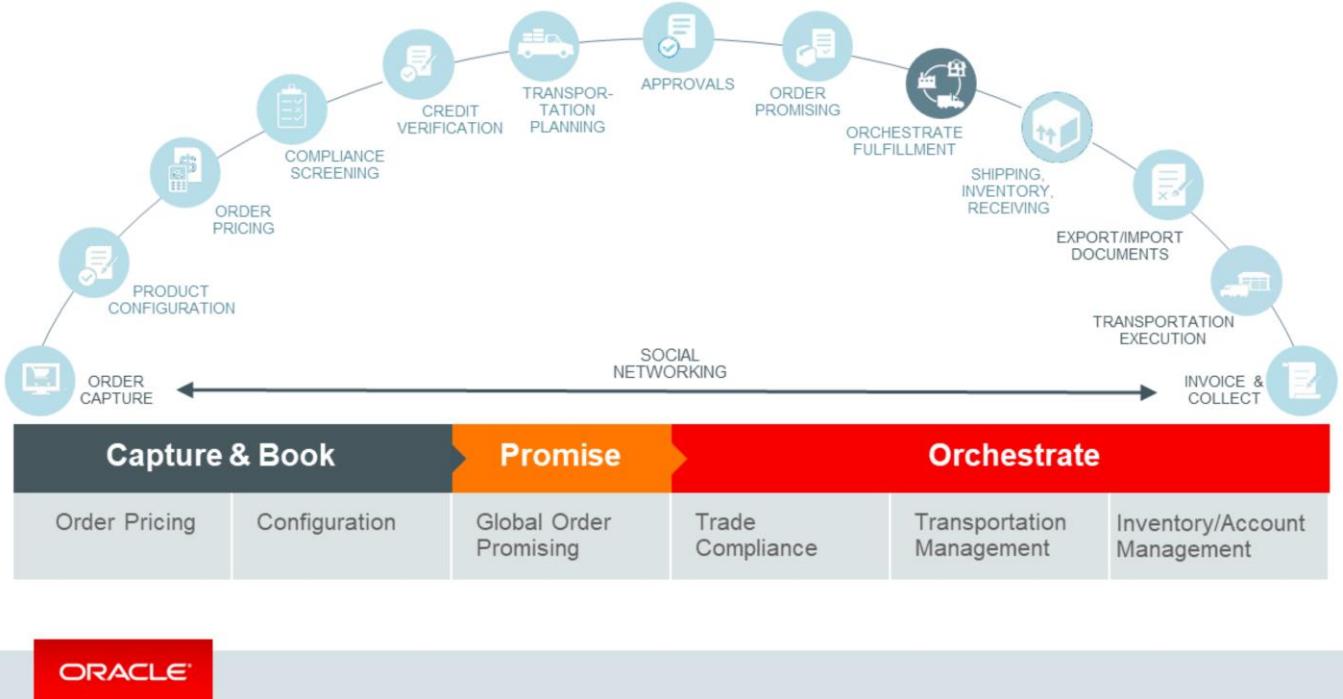


After you complete this lesson, you should be able to:

- Explain the capabilities that service mappings provide
- Explain the capabilities that Order Management extensions provide
- Explain what you can do using Page Composer
- Give a high-level explanation of how to set up extensible flexfields

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Order-to-Cash Process

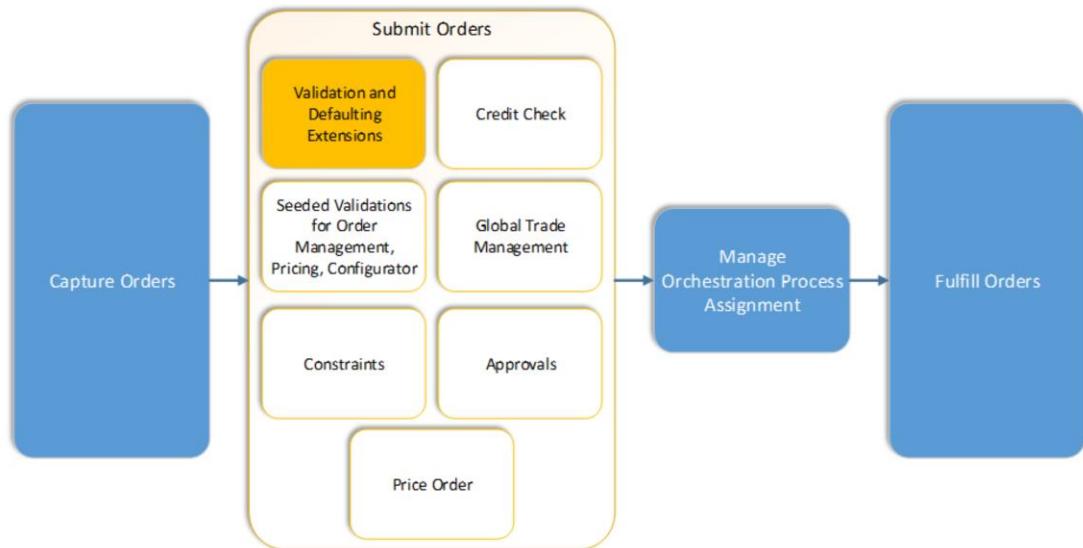


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transportation planning, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on extending Order Management.

Extending Order Management



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You can extend Order Management using:

- Service mappings
- Order Management extensions
- Page composer
- Extensible flexfields

The graphic depicts the order fulfillment flow from order capture to order fulfillment. First, orders are captured. Then, at order submission, the automatic actions that may occur include:

- Validation and Defaulting Extensions
- Seeded Validations for Order Management, Pricing, and Configurator
- Constraints
- Price Order, including calculating tax and applying guidelines
- Credit Check
- Global Trade Management
- Approvals

After order submission, an orchestration process is assigned to each fulfillment line and then orders are fulfilled.

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields

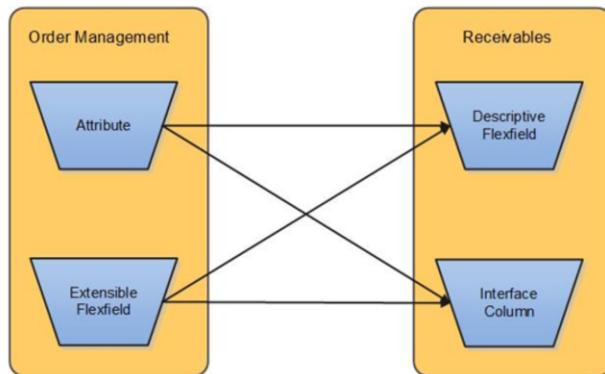


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Service Mappings

Gives you the ability to pass data from an attribute or extensible flexfield in Order Management to a descriptive flexfield or interface column in the following Oracle Fusion fulfillment systems:

- Shipping
- Receiving
- Receivables
- Purchasing



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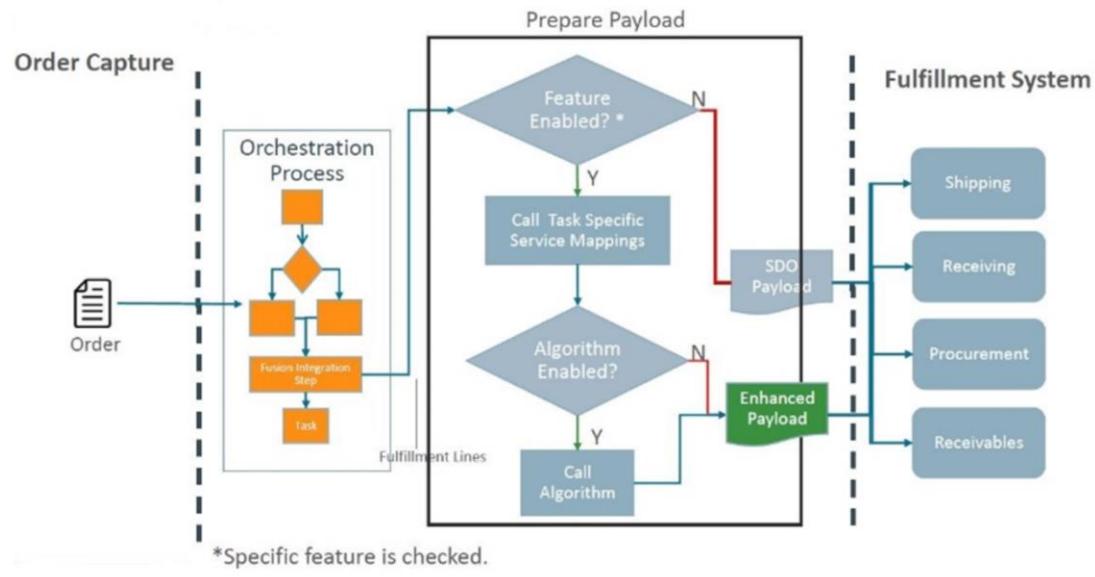
You might use service mappings to pass:

- An additional, company-specific attribute to a shipping agent
- A deliver-to address to the supplier

Extend integration with Receivables to:

- Map the fulfillment line attribute named Purchase Order Line Number in Order Management (CUSTOMER_PO_LINE_NUMBER) to a descriptive flexfield with the context “Invoice Line Level” and the segment “PO” in Receivables.
- Pass the data from Contract Start Date and Contract End Date in Order Management to Rule Start Date and Rule End Date in Receivables.
- Configure charges and additional charge lines to extend the integration between Order Management and Financials.
- Automate the determination of tax on freight, and pass freight charges to Financials to calculate the tax amount.
- Create an integrated process that helps ensure tax compliance, minimizes order exceptions, and provides more accurate billing.
- Capture and pass additional attributes from Order Management to the Receiving service
- Capture lot numbers in the Order Management extensible flexfields and pass them to Receiving
- Capture and pass additional attributes from Order Management to the Shipping service, such as from descriptive flexfields
- Capture shipment details on the fulfillment line in the Order Management extensible flexfields. Send these details to a descriptive flexfield in Shipping

Service Mappings: Flow



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This graphic depicts the flow of attribute data that is passed from Order Management to an Oracle Fusion fulfillment system when service mappings are enabled.

An order contains the attribute that you want to pass to the fulfillment system. The order is processed by an orchestration process that contains an integration step. During that step, the enhanced payload with the data is passed to one of the fulfillment systems:

- Shipping
- Receiving
- Procurement
- Receivables

Service Mappings: High-Level Setup Steps

1. Get values that identify the attribute.
2. Use the Manage Service Mappings page to map the attributes or extensible flexfields to descriptive flexfields or interface columns.
3. Use the Manage Algorithms page to include additional logic or mapping information from a different level, for example:
 - From order header to invoice interface line
 - From extensible flexfields to interface line



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Algorithms use Groovy script.

The Manage Service Mappings page and the Manage Algorithms page are in the Pricing Administration work area.

For complete information on service mappings, see Customer Connect session on Order Management extensions: <https://cloudcustomerconnect.oracle.com/posts/0c3022ed76>

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields



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Order Management Order Profiles

Profile values that control some behavior of Order Management:

- Currency Conversion Type
- Display Currency
- Required Overview Status Filter
- Retain Sales Order Number For Orchestration order Number
- User Request Waiting Period In Seconds
- OM: Log Enabled
- OM: Log Level
- Sequence Procurement Events



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Controls:

- Behavior in Order Management work area
- How Order Management receives and transforms source orders to sales orders

Note: Most come preconfigured.

You can use them to manage predefined profile values that Order Management Cloud uses for each item.

You don't need to configure most of them unless your organization requires different values.

For more information about Order Management profiles, see: <https://docs.oracle.com/en/cloud/saas/supply-chain-management/19a/faiom/order-processing.html#FAIOM1647984>

Navigation:

1. In the **Navigator**, click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, go to the task.
 - Offering: Order Management
 - Functional Area: Orders
 - Task: Manage Order Profiles
3. On the **Manage Order Profiles** page, in the **Profile Option** area, click **Search**.
4. In the search results, in the **Profile Options** list, click the profile you must edit.
5. In the **Profile Values** list, add or delete values, as necessary.

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields



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Order Management Parameters



These parameters affect most or all of Order Management Cloud:

General Parameters:

- Allow Changes Through Configurator Validation
- Configuration Effective Change
- Customer Relationship Type
- Halt Configurator Validation on First Error
- Item Validation Organization
- Preparer for Procurement
- From Address for E-Mail Messages
- Number of Processes for Order Import
- Start Approval Process for Sales Orders
- Coverage Start Date
- Credit Check Failure at Order Submit
- Notify Frequency
- Check for Trade Compliance When User Submits Sales Order
- Activate Credit Check on Order Submit

- Enable Orchestration Process Planning and Calculate Jeopardy
- Number of Times to Retry Pause
- Filter Ship-To Addresses by Ship-to Usage
- Automatically Set Values on Sales Agreement Attributes

Pricing Parameters:

- Default Price Periodicity UOM Class

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For more information about Order Management profiles, see: <https://docs.oracle.com/en/cloud/saas/supply-chain-management/19a/faiom/implement.html#FAIOM1734415>

Navigation:

1. In the **Navigator**, click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, go to:
 - Offering: Order Management
 - Functional Area: Orders
 - Task: Manage Order Management Parameters
3. On the **Manage Order Management Parameters** page, set values.

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields



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Using Extensions with Order Management

- Write Groovy code to extend the order save and submission flow to:
 - Call web services
 - Write advanced defaulting logic
 - Example: Default attributes on an order line
 - Example: Default order preferences from your customer master to your orders
 - Example: Default value from original order to return lines
 - Example: Convert shipment cost to freight charge in Order Management then sends them to Invoicing
 - Write advanced validation logic
 - Example: Validate business rule
 - Example: Verify that a PO number entered on the sales order matches a PO number in the Procurement system

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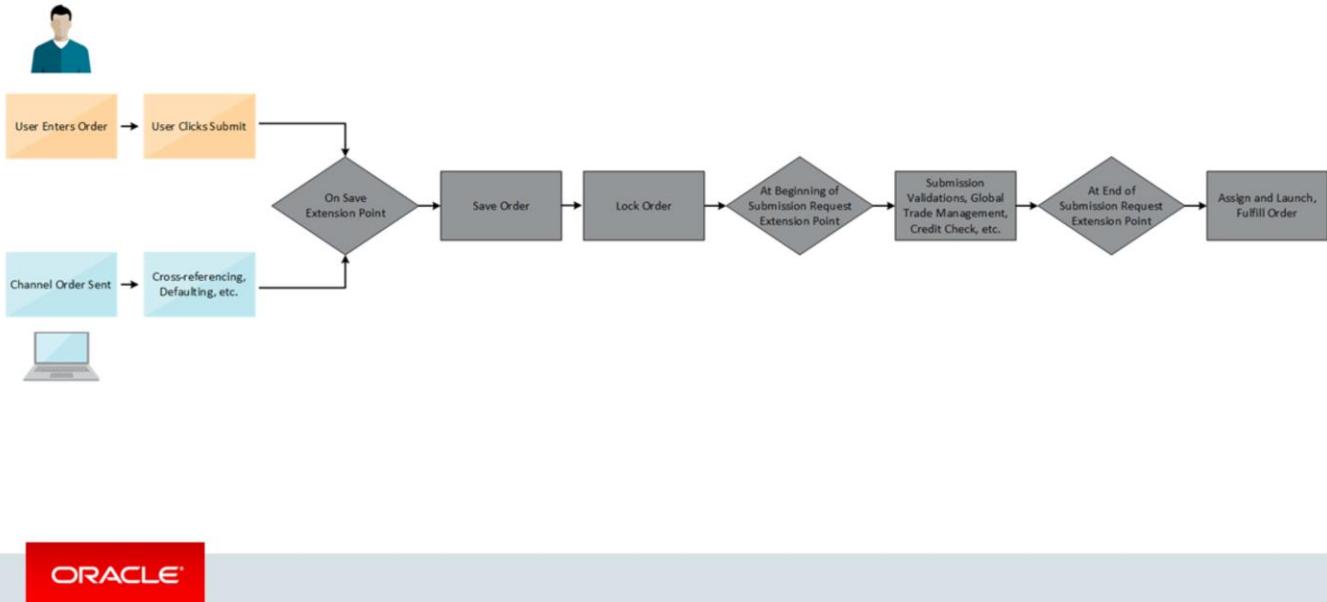
Note that you can use a flexfield to modify the data model and Page Composer to modify the user interface, but only Order Management extensions can modify the implementation of Order Management.

Use the Manage Extensions page in the Setup and Maintenance work area to write Groovy script.

To convert shipment cost to freight charge, see:

- “Convert Shipment Costs to Freight Charges” topic in docs.oracle.com
- White Paper in Order Management Cloud, Doc ID 2051639.1 in My Oracle Support

Extension Events



Let's look at this graphic from the previous lesson again. Notice the extension points. An extension point is an event that you specify that triggers execution of the extension.

Explanation of flow:

1. An Order Entry Specialist performs one of the following actions in Order Management:
 - Validate
 - Save
 - Save and Close
 - Validate
 - Reprice
 - Submit
 - Copy Order
 - Create Revision
 - Create Return
2. The actions in the previous step have in common an implicit Save, which triggers extensions that use the On Save extension point. These extensions also are triggered when Order Management Cloud imports a source order from a source system and then processes it. Extensions that use On Save are triggered.
3. You can create an extension that runs on the On Start of Submission Request extension point. If the extension results in failure, then Order Management sets the sales order status to Draft, with errors.
4. Order Management processes the submission request, including validations, credit check, Global Trade Management compliance check, and so on.

Order Management Extensions – Data Available for Read/Write

Type of Data Needed	How to Access Data	Limitations
Orders	Read – Use getAttribute() Write – Use setAttribute()	Data pertains to the current order Attribute updates only (no line creation)
Oracle Fusion Applications Data (Examples: Customer, Item)	Public View Objects (PVOs)	Oracle Fusion applications must share the data using PVOs
External Data	Web service call	Synchronize services only

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This table summarizes the data that is available for read/write.

Table columns:

- Type of Data Needed
- How to Access Data
- Limitations

Order Management Data

Read Access (all events)

- Order Header + Extensible Flexfields
- FulfillmentLines + Extensible Flexfields
- Sales Credits
- Pricing entities (Charge, Charge Components, Manual Price Adjustments, Totals & Price Validations, Tax Details)
- Lot/Serial
- Item Attributes (transactional item attributes)
- Payments
- Billing Plans
- Attachments
- FulfillmentLine Details
- Document References

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Write Access

- On Save, On Start of Submission Request
 - Order Header + Extensible Flexfields
 - FulfillmentLines + Extensible Flexfields
 - Sales Credits
 - Attachments
 - Item Attributes (transactional item attributes)
 - Document References
- On End of Submission Request
 - Order Header Extensible Flexfields
 - FulfillmentLine Extensible Flexfields
 - Attachments

This slide discusses how data is available for extensions.

Note: Extensions don't run as part of updates from fulfillment systems.

Filtering Lines In Your Extensions, Rules, and Constraints

Make sure you filter out lines that you don't want to process when you create an order management extension, business rule, or processing constraint.

Line to Filter Out	Explanation
Canceled order lines or closed order lines	When you create a business rule that modifies a value on a fulfillment line that's still in progress.
Lines that aren't shippable	Example: Warranty
Lines that reference a coverage item	Example: Service agreement. To reserve means you reserve an item inventory. You don't store a service agreement in inventory because it's not a physical item, so don't reserve it.
Return lines you don't want to ship on an outbound sales order	
Lines that already passed trade compliance	
Lines you already shipped	To avoid a constraint error
Lines without a value for an attribute that you use as part of a calculation in your logic	To avoid the NullPointerException error
Backordered lines that don't allow change	

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Be sure to filter out lines that you don't want to process.

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields



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Page Composer

- Page editor for revising the layout and content of application pages
- Used to modify pages in a sandbox while you are working in the application. Your UI modifications are applicable to all users.
- In the applications mentioned in this course, you can use Page Composer, to:
 - Edit elements in the user interface, for example
 - Show and hide fields
 - Change field labels
 - Designate fields read-only or required
 - Create default saved searches (also called saved lists)
 - Configure the default display of search results in tables



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The full capabilities of Page Composer are described in the *Oracle Fusion Middleware User's Guide* for Oracle WebCenter and in the *Oracle Fusion Applications Extensibility Guide*. You can also see Oracle Help Center for more information.

Topics

- Service Mappings
- Order Management Order Profiles
- Order Management Parameters
- Order Management Extensions
- Page Composer
- Extensible Flexfields



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Extensible Flexfields (EFFs)

- Set of placeholder fields associated with business objects
- Appear on application pages to contain additional data
- Use them to:
 - Modify business objects and meet enterprise data management requirements without changing the data model or performing database programming
 - Capture different data on the same database table
 - Modify features of the application
 - Integrate Order Management with another application by capturing one or more attributes from that other application

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Extensible flexfields are just one more way to modify the application to work for you and your organization.

Extensible flexfields establish one-to-many data relationships and make application data context-sensitive. The flexfields appear only when the contextual data conditions are fulfilled.

Extensible Flexfields on UI Pages

The screenshot displays three main components related to extensible flexfields:

- Manage Extensible Flexfields:** A left-hand interface showing "Additional Header Information: Details" and "HeaderEFFDetails: Associated Contexts Details". The "HeaderEFFDetails" section contains two contexts: "Compliance info" (Sequence 10) and "HeaderEFFDetails" (Sequence 20). The "Associated Contexts Details" section lists three contexts: "HeaderContext1" (Sequence 10), "HeaderContext2" (Sequence 20), and "HeaderContext3" (Sequence 30). Arrows point from the "HeaderEFFDetails" context in the first list to the "HeaderEFFDetails" section in the second list, and from "HeaderContext1" and "HeaderContext2" in the second list to their respective sections in the third list.
- Order Entry User Interface:** A central window titled "Additional Header Information: HeaderEFFDetails". It shows two header contexts:
 - HeaderContext1:** Contains attributes HTAttributeChar1, HTAttributeNum1, HTAttributeDate1, HTAttributeChar2, and HTAttributeDateTime1.
 - HeaderContext2:** Contains attributes H2AttributeChar1, H2AttributeNum1, H2AttributeDate1, H2AttributeChar2, and H2AttributeDateTime1.
- Context Sensitive Segments:** A bottom-right window showing a list of segments with sequences 10 through 50, including HTAttributeChar1, HTAttributeNum1, HTAttributeDate1, HTAttributeDateTime1, and HTAttributeChar2.

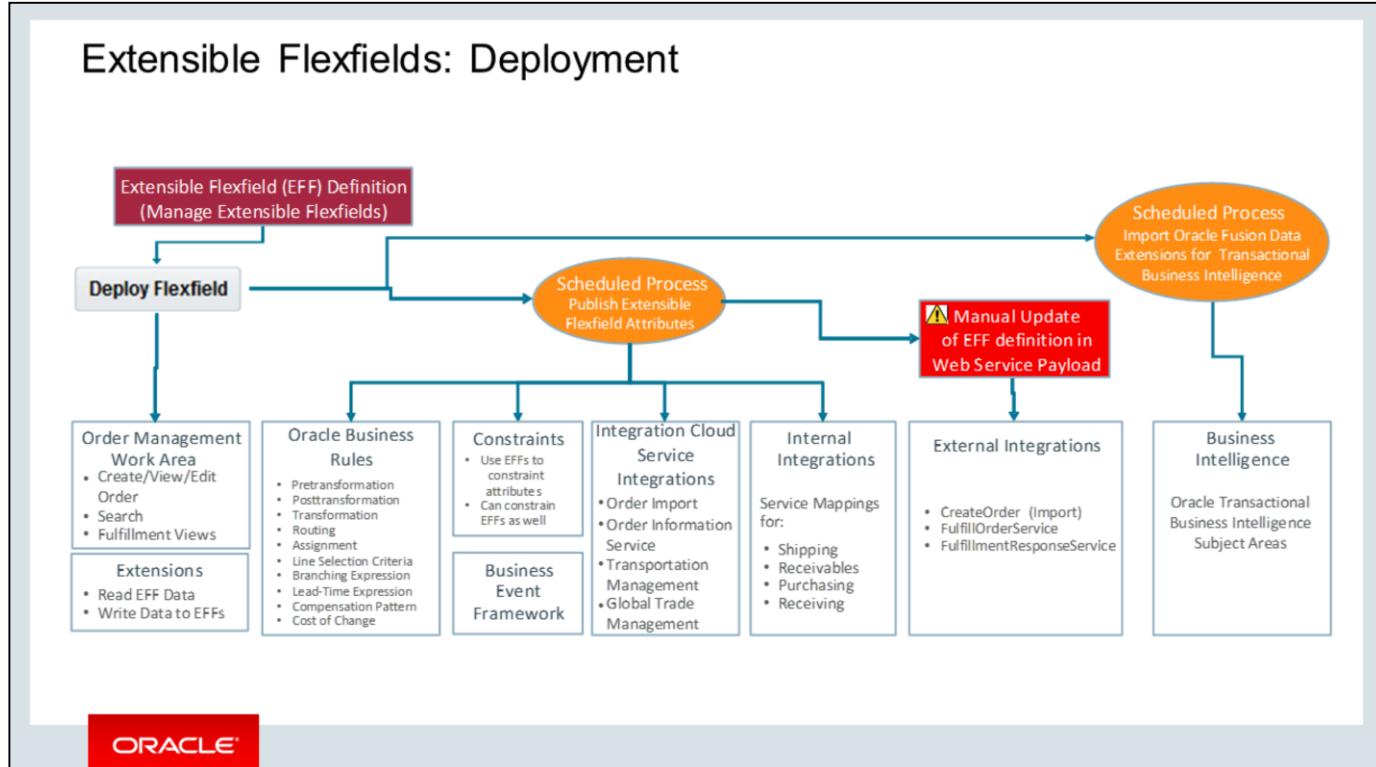
Here's what extensible flexfields look like. We have a screen shot that shows where you manage extensible flexfields.

- You organize contexts into pages to appear on the UI.
- You can organize attributes into sequential order.

Then we have a screen shot that shows the context-sensitive segments.

Finally, the screen shot on the right shows the extensible flexfield on an Additional Information page.

Extensible Flexfields: Deployment



Extensible flexfields are pervasive across Order Management. Make sure that after you define your extensible flexfield, run the necessary scheduled process to deploy it.

This graphic shows the actions that are required to deploy extensible flexfields to different parts of Order Management.

For more information, see the Customer Connect session called Implementing Order Management Cloud: Tips and Best Practices (Part 2): Extensible Flexfields (EFFs) at
<https://cloudcustomerconnect.oracle.com/posts/66290477d6>

Extensible Flexfields: Setup

For details on how to set up extensible flexfields, see:

- My Oracle Support, Article 2051639.1
- Cloud Customer Connect: SCM - Implementing Order Management Cloud - Tips & Best Practices (Part 2)



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See the Customer Connect session for details on setting up extensible flexfields:

<https://cloudcustomerconnect.oracle.com/posts/66290477d6>

Migrating Setup Data

You can migrate setup data from one instance to another using the Setup and Maintenance work area.



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You can find information on migrating setup data in the SCM Foundation course.

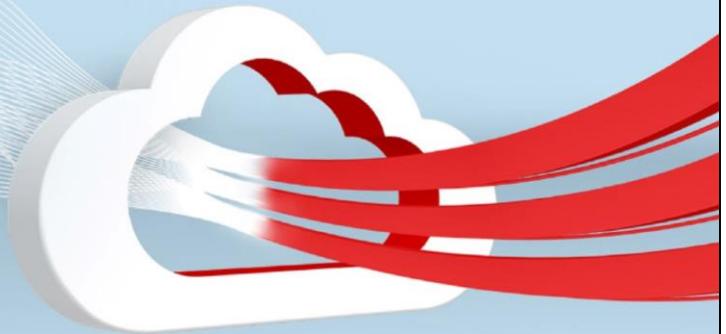
Summary

In this lesson, you should have learned how to:

- Explain the capabilities that service mappings provide
- Explain the capabilities that Order Management extensions provide
- Explain what you can do using Page Composer
- Give a high-level explanation of how to set up extensible flexfields



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Managing Approvals

Part 3: Submitting Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	20 minutes	Lecture and Demo
	30 minutes	Practice
	50 minutes	Total

Learning Objectives

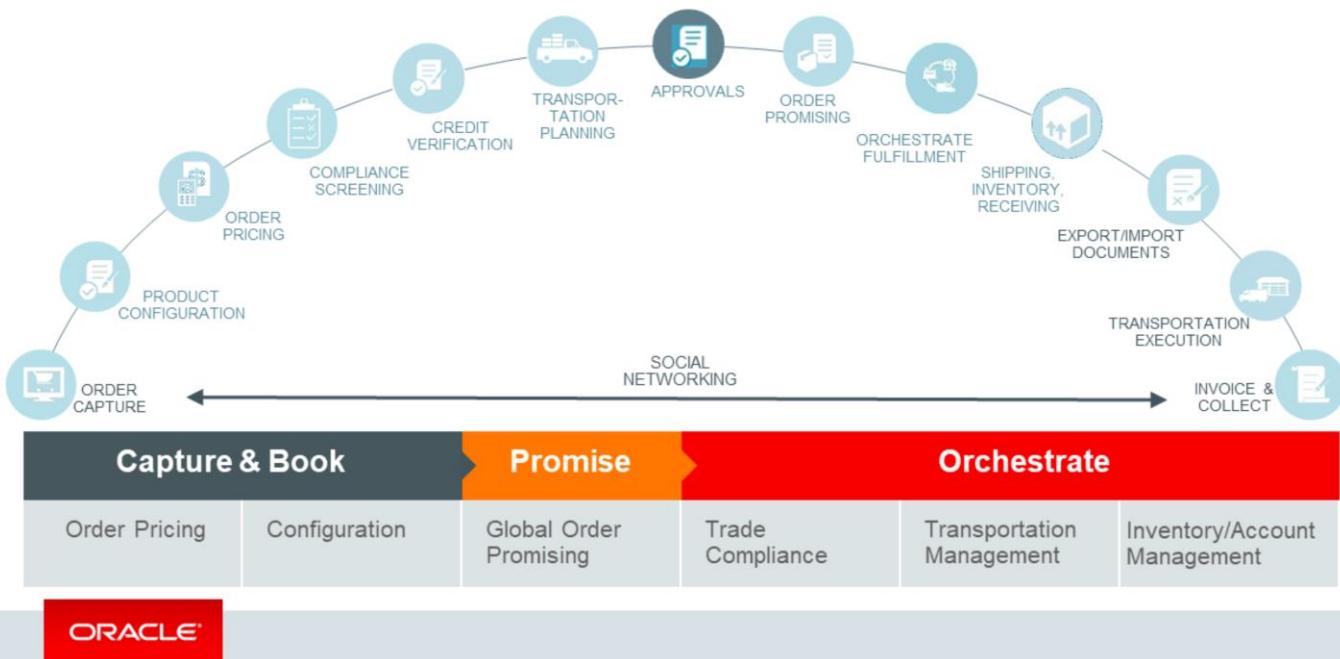


After you complete this lesson, you should be able to:

- Explain the purpose of an approval
- Create an approval rule

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Order-to-Cash Process

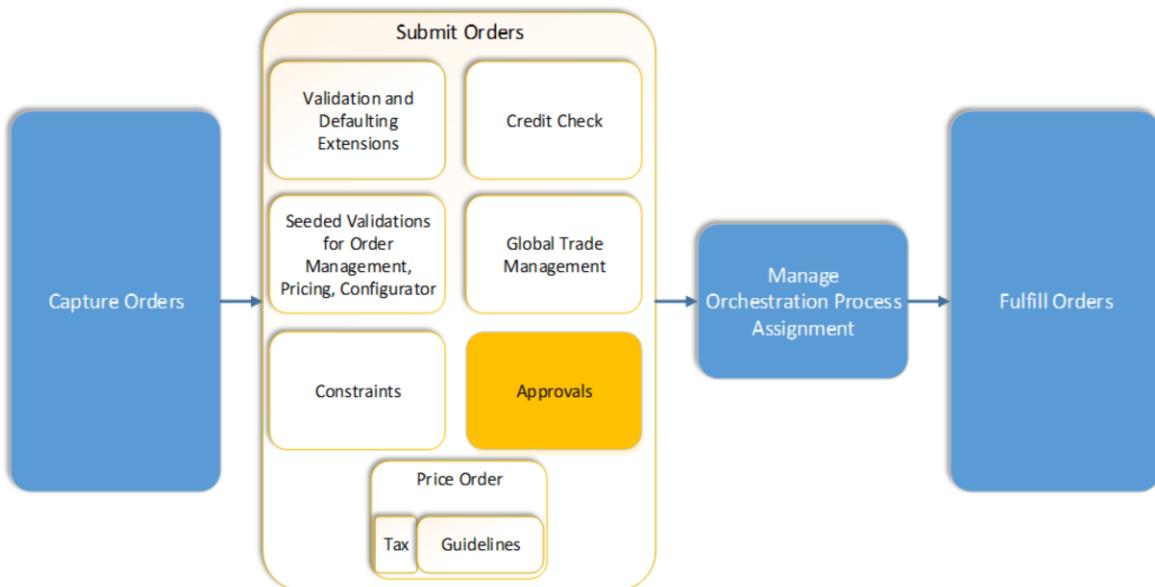


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on approvals.

Approvals



The graphic depicts the order fulfillment flow from order capture to order fulfillment. First orders are captured. Then, at order submission, the automatic actions that may occur include:

- Validation and Defaulting Extensions
- Seeded Validations for Order Management, Pricing, and Configurator
- Constraints
- Price Order, including calculating tax and applying guidelines
- Credit Check
- Global Trade Management
- Approvals

After an order is captured, an orchestration process is assigned to each fulfillment line and then orders are fulfilled.

Topics

- Approvals: Introduction
- Setup



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Approvals: Introduction

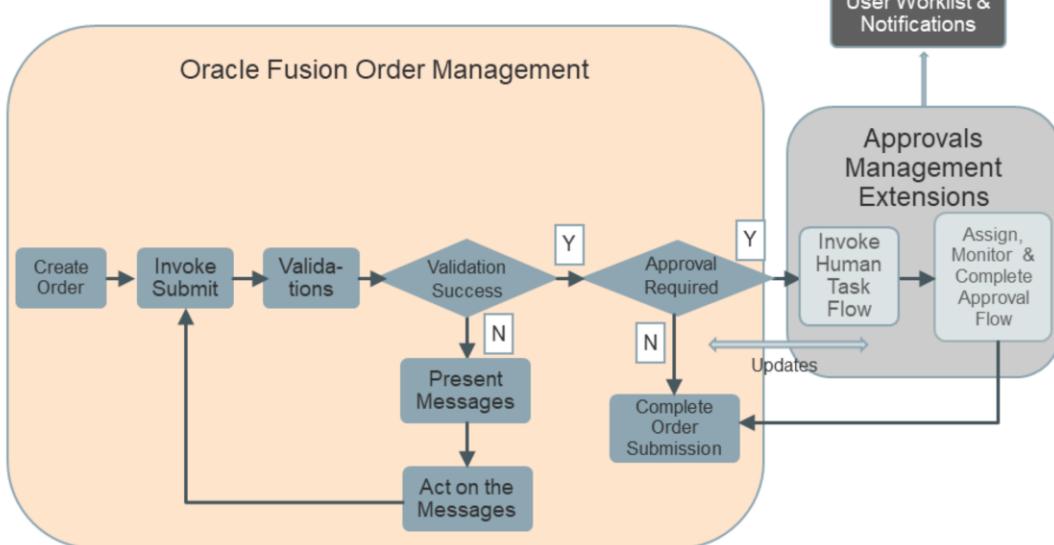
Require approvals for orders that meet specific criteria.

The screenshot shows a software interface for managing orders. At the top, it displays the order details: "Order: Computer Service and Rentals - 90352 - Approval Pending". The total value is listed as "147,487.50". Below this, there are sections for customer information (Customer: Computer Service and Rentals (10060), Contact: Evelyn Duncan), ordering details (Ordered Date: 4/25/19 4:15 PM, Purchase Order, Order Type), and business unit information (Business Unit: US1 Business Unit, Bill-to Customer: Computer Service and Rentals, Bill-to Account: 10060, Ship-to Customer: Computer Service and Rentals, Ship-to Address: 101 E Summit Hill Dr, KNOXVILLE, TN 37915, Sales Credits, Sales Agreement). A table titled "Order Lines" lists one item: "AS85009 - Green Server (Blade) 5500" with a quantity of 10, status "Not Started", and a price of 13,500. The Oracle logo is visible at the bottom left of the interface.

You can configure your order process to subject orders to approval before they are finalized. You can write approval rules that fit your organization's needs. For example, you might want a supervisor to review and approve orders over \$50,000 before they are booked. Alternatively, you might want a supervisor to review all orders with a manually adjusted price.

This screenshot depicts a confirmation message that appears on the Create Order page. The confirmation message indicates that the order may require approval and that fulfillment will begin after the order is approved.

High-Level Approval Flow



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Order administrators write approval rules using attributes from the order. If the system parameter Start Approval Process for Sales Orders is set to Yes, then the approvals flow is initiated. Order approvals leverage the Approvals Management service, the business process modeling work list, and the notifications functionality in the end-to-end flow.

You can set the Start Approval Process for Sales Orders parameter at the level of the source system, which is the system where the order originates. The source system could be either of these:

- Oracle Order Management Cloud, if your organization creates orders using the Order Management Create Order page.
- Oracle Configure, Price, and Quote (CPQ), if your organization imports orders from Oracle CPQ to Order Management Cloud.

If you want approvals to run for orders created in Order Management Cloud only, then set the parameter to Yes for Order Management Cloud, and set the parameter to No for CPQ.

The order entry specialist doesn't need to do anything to initiate approval of the order.

The Approvals Management service verifies that all the approval rules match the attribute values on a specific order with the attribute-based conditions in the approval rules. Then the service generates the list of assignees based on the actions specified in the DO part of the approval rules.

When the conditions in a rule indicate that an order requires approval, the order is sent to the approver automatically. The order entry specialist receives a confirmation message stating that the order is being verified. The order is locked until approval. Order entry specialists can view the approval history and can revert the order back to draft. View approval notes in Order Management.

This diagram shows the approval flow. The following actions are listed in the sequence in which they occur: Create order, initiate submission, validate, and if approval functionality is set up for the source system, initiate the Approvals flow, as shown. After approval, the order submission is completed in Order Management and then proceeds to fulfillment.

Topics

- Approvals: Introduction
- Setup



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Setup

To enable and set up approval rules:

1 Set up the Order Management parameter “Start Approval Process for Sales Orders.”

2 Create an approval rule.

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This slide lists the steps for setting up and enabling approval rules.

Demonstration: 13-1

- Creating an Approval Rule for Orders Exceeding \$1000



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Practice: 13-1

- Creating an Approval Rule for Orders Exceeding \$5000

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Summary

In this lesson, you should have learned how to:

- Explain the purpose of an approval
- Create an approval rule



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Managing Processing Constraints

Part 3: Submitting Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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30 minutes	Lecture and Demos
25 minutes	Practices
55 minutes	Total

Learning Objectives:

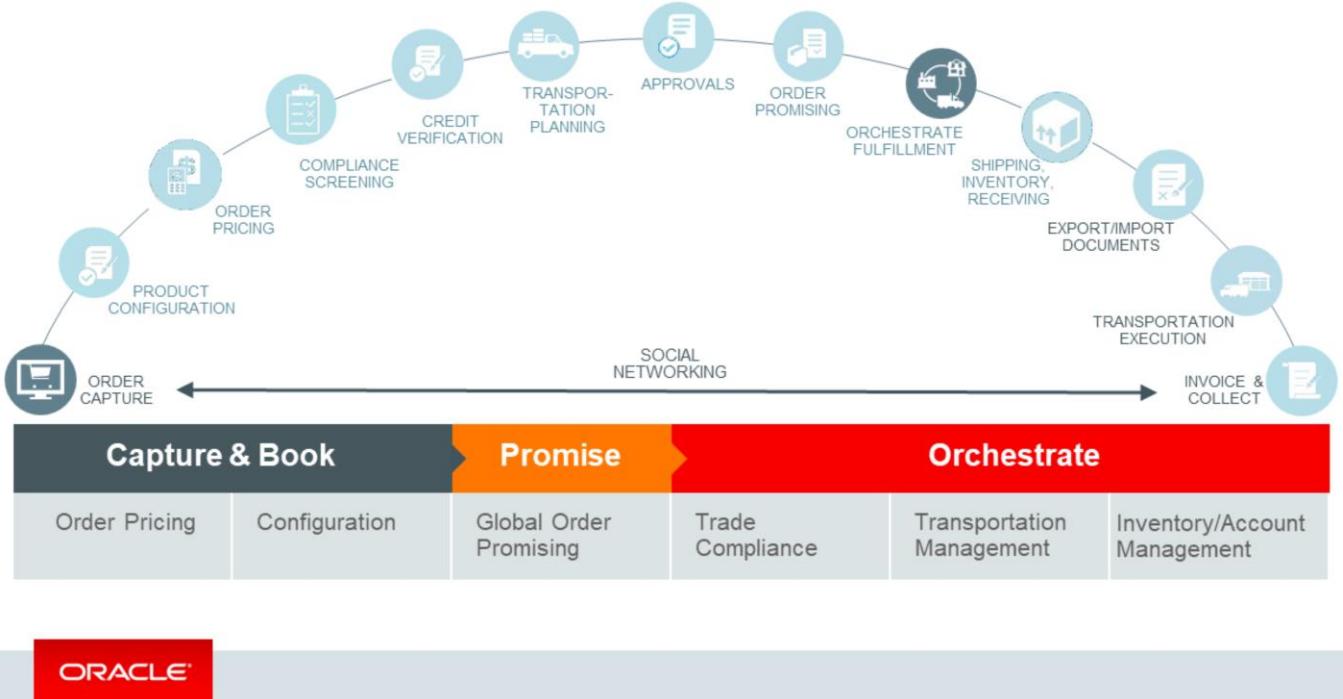


After you complete this lesson, you should be able to create a:

- Constraint entity
- Processing constraint

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Order-to-Cash Process

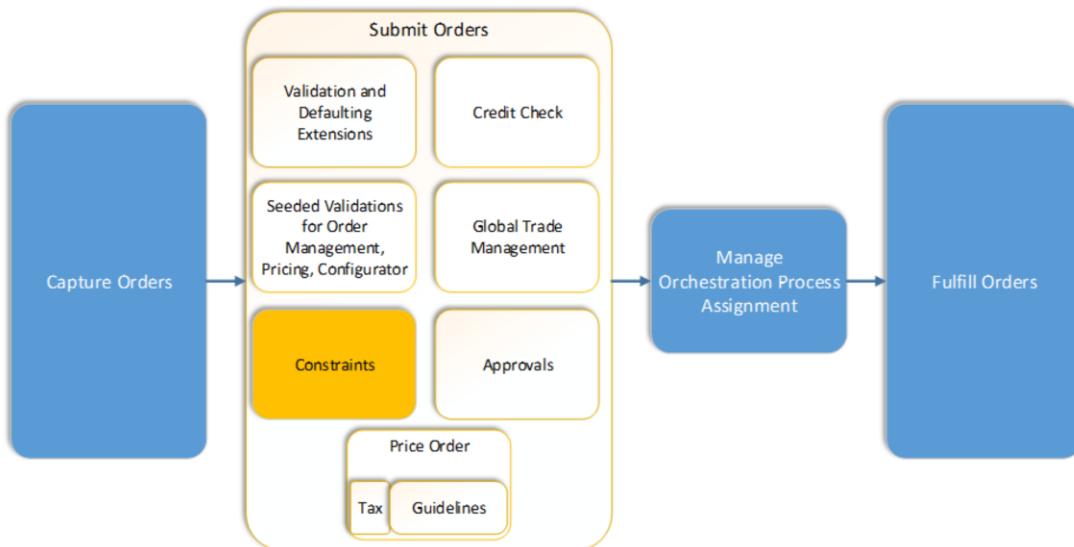


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In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on processing constraints.

Processing Constraints



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The graphic depicts the order fulfillment flow from order capture to order fulfillment. First orders are captured. Then, at order submission, the automatic actions that may occur include:

- Validation and Defaulting Extensions
- Seeded Validations for Order Management, Pricing, and Configurator
- Constraints: Highlighted because it's the focus of this lesson.
- Price Order, including calculating tax and applying guidelines
- Credit Check
- Global Trade Management
- Approvals

After order submission, an orchestration process is assigned to each fulfillment line and then orders are fulfilled.

Topics

- Processing Constraints: Introduction
- Managing Constraint Entities
- Managing Processing Constraints



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Processing Constraints: Introduction



Processing constraints

- Rules that control attempted changes to an order
- Dictate what can be changed, when, and by whom

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Processing constraints run automatically and are invisible to users except when a change is rejected. At runtime, processing constraints detect changes to the order, order line, and fulfillment line. They disallow prohibited changes and return a user message that's defined for the processing constraint.

Oracle Fusion Order Management comes with predefined processing constraints, which you can choose to enable or disable. You can create additional ones.

Constrained operations:

- Cancel
- Create
- Delete
- Split
- Submit
- Update
- Validate

Processing Constraints: Introduction

The screenshot shows the 'Manage Processing Constraints' interface in Oracle Order Management and Fulfillment Cloud. The main table lists processing constraints across different entities and operations. Annotations highlight specific columns: 'On Operation Action' (e.g., Not allowed), 'Applicable Roles' (e.g., All roles), and 'Predefined'. A detailed view for 'Fulfillment Line Supplier Update' shows validation rules where 'Fulfillment Lines Were Shipped' prevents changes. A message box indicates the rejection reason.

* Constraint Name	* Display Name	* Constraint Entity	* Constrained Operation	Attribute Name	On Operation Action	Applicable Roles	Predefined
DOO_FULFILLMENTLINE_SUPPLIER_SITE_UPDATE	Fulfillment Line Supplier Site Update	Order Fulfillment Line	Update	Supplier site	Not allowed	All roles	
DOO_SUPPLIER_SITE_CHANGE	Change Supplier Site	Order Fulfillment Line	Update	Supplier site	Not allowed	All roles	
DOO_FULFILLMENTLINE_SUPPLIER_UPDATE	Fulfillment Line Supplier Update	Order Fulfillment Line	Update	Supplier	Not allowed	All roles	
DOO_SUPPLIER_CHANGE	Change Supplier	Order Fulfillment Line	Update	Supplier	Not allowed	All roles	
DOO_FULFILLMENT_LINE_SUBINVENTORY_UPDATE	Fulfillment Line Subinventory Update	Order Fulfillment Line	Update	SubInventory	Not allowed	All roles	

Fulfillment Line Supplier Update: Details					
Conditions	Applicable Roles				
Actions	View	Format	+ X	Freeze	Wrap
* Group Number	* Validation Entity	Invert Validation Rule Set	* Validation Rule Set	* Scope	* Record Set
10 Order Fulfillment Line	—	Fulfillment Lines Were Shipped	Any	Fulfillment Line Default Record Set	The supplier cannot be updated because the fulfillment line was shipped.
20 Order Fulfillment Line	—	Fulfillment Lines Were Billed	Any	Fulfillment Line Default Record Set	The supplier cannot be updated because a request to invoice the line was created.

This screenshot highlights a processing constraint that prohibits any user from submitting a change order with an update to the supplier attribute after the fulfillment line is shipped. The screenshot also shows the message that appears when the change is rejected.

Processing Constraint Components

- Record set
- Validation rule set
- Constraint entity
- Processing constraint

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Record Set: Group of records that are bound by some common attribute values for the purpose of constraint evaluation. For example, you might want to evaluate all lines on an order or all orders for customer XYZ. In the processing constraints framework, when you define constraining conditions, you must specify a record set to be validated for a given condition as defined by its validation template.

- Attribute: The business object characteristic that defines the set of records.

Validation Rule Set: Names a condition and defines how to validate that condition for a processing constraint.

Constraint Entity: Business object that a processing constraint is applied to. For example, you might want to prohibit changes to fulfillment lines when their associated orchestration processes reach a certain step.

Processing Constraint

- Role: User role that's prohibited from making a change. For example, you might want to prohibit order managers from making changes when the orchestration process proceeds beyond a certain step.
- Operation: Action that's prohibited. Options: create, update, cancel, split, delete, submit, validate.
- Condition: Test that must be passed for a constraint to be applied. For example, you can create a condition that a constraint must be applied if an order is booked.

Topics

- Processing Constraints: Introduction
- Managing Constraint Entities
- Managing Processing Constraints



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Managing Constraint Entities

Constraint entity:

- View entity
- Process task entity



Constraint Entity: Business object that a processing constraint is applied to. Types of constraint entities:

View Entity

- Order header, order line, and fulfillment lines that contain a group of related attributes that correspond to a table.
- Predefined view entities are provided. You can't create new view entities.
- Additional attributes, such as flexfields, can be enabled within an existing view entity.

Process Task Entity

- Is based on a combination of orchestration process, task, and service
- Represents the position of the transaction in the flow
- Prohibits actions, such as the update of attributes or deletion of table entities, at some point in an orchestration process
- Validates required attributes for fulfillment requests, such as Create Shipment request, Update Shipment request, and Create Reservation request

Predefined process task entities are provided. You can create additional process task entities to suit your business requirements.

A process task entity can be the combination of an orchestration process, a task, and a service. For example, a new process task entity is defined for the Update Shipping task layer service. It's named OrderOnlyProcess. It's defined as:

- Orchestration Process=OrderOnlyProcess
- Task=Shipping
- Service=UpdateShipment

When you define a constraint using this combination, a check is made for that constraint only if the process name and task match during order processing.

Demonstration: 14-1

- Creating a Constraint Entity



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Demonstration: 14-2

- Enabling Additional Attributes for a View Entity



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Topics

- Processing Constraints: Introduction
- Managing Constraint Entities
- Managing Processing Constraints



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Managing Processing Constraints: Creating a Record Set

Record Sets tab appears on Managing Processing Constraints page

This is the record set we're creating

* Name	Description	* Short Name	* Entity
Fulfillment Lines That Belong to Same Customer 05	A record set created on fulfillment lines that belong to the same customer.	FCST05	Order Fulfillment Line
Fulfillment Line Default Record Set	A record set created on fulfillment lines based on the fulfillment line ID. The record set contains a fulfillment line record that corresponds to a particular fulfillment line used dur...	FLINE	Order Fulfillment Line
Fulfillment Lines That Belong to Same Header ID	A record set created on fulfillment lines with the same header ID. The lines are grouped together for processing-constraint validation.	FLNHDR	Order Fulfillment Line
Fulfillment Lines That Belong to Same Orchestration Order Line	A record set created on fulfillment lines that belong to the same orchestration order line. The lines are grouped together for processing-constraint validation.	FLNLIN	Order Fulfillment Line
Orchestration Order Lines That Belong to Same Header ID	A record set created on orchestration order lines with the same header ID. The lines are grouped together for processing-constraint validation.	LINHDR	Order Line

Start by defining the record sets you want your processing constraint to check. The processing constraint that we're defining will check records of fulfillment lines that belong to the same customer.

Here, we've selected the Order Fulfillment Line entity. Optionally, you could create a new constraint entity to use in your processing constraint. If you want to create a constraint on an orchestration process, then create a process task entity. Otherwise, you can use one of the existing view entities. In this case, you don't need to create an entity.

Make sure you filter out lines that you don't want to process when you create an order management extension, business rule, or processing constraint. For more information, see lesson 12.

Managing Processing Constraints: Creating Validation Rule Sets

You have to click Generate Packages so that the values you create appear in the Constraints tab

The screenshot shows the Oracle Cloud interface for managing processing constraints. The 'Validation Rule Sets' tab is active. A callout box points to the 'Generate Packages' button at the top right of the grid. The grid lists validation rule sets with columns for Name, Description, Short Name, Validation Type, Entity, and Predefined. One row is expanded to show its details.

* Name	Description	* Short Name	* Validation Type	* Entity	Predefined
PO VRS 05	The validation rule set for lines with PO 05.	PO05	Table	Order Header	—
Shipment VRS 05	The validation rule set for lines with status Awaiting Shipment.	SHIP05	Table	Order Fulfillment Line	—
Update Inventory Re...	The validation rule set for the Update Inventory Reservation request.	CHRESV	Process	Update Reservation Servi...	✓
Fulfillment Line Is Int...	Fulfillment Line Is Interfaced to Shipping	DOO_WSH	API	Order Fulfillment Line	✓
Create Billing Lines ...	The validation rule set for the Create Billing Line request.	CRBILL	Process	Create Billing Service	✓

PO VRS 05: Details

* Attribute Name	* Validation Operation	Value String
Number that identifies the purchase order	Equal to	05



On this tab, we're creating the rule for evaluating the record sets.

For a table-type validation rule set, you must generate the constraint package.

Managing Processing Constraints: Creating a Constraint

The screenshot shows the Oracle Order Management interface for managing processing constraints. At the top, there's a navigation bar with tabs for 'Constraints', 'Validation Rule Sets', and 'Record Sets'. Below the navigation is a toolbar with actions like 'Actions', 'View', 'Format', and 'Search'.

The main area displays a table of existing constraints:

* Constraint Name	* Display Name	* Constraint Entity	* Constrained Operation	Attribute Name	* On Operation Action	Applicable Roles	Enabled	Predefined
SHIPPING_CONSTRAINT_05	Shipping Constraint 05	Order Fulfillment Line	Update	Ordered quantity	Not allowed	All roles	<input checked="" type="checkbox"/>	—
GSE_SO_HEADER	GSESOHEADER	Order Fulfillment Line	Submit		Not allowed	All roles	<input checked="" type="checkbox"/>	—
DOO_DS_FULFILLMENT_LINE_UPDATE	Update Fulfillment Line Th...	Order Fulfillment Line	Update		Not allowed	All roles	<input checked="" type="checkbox"/>	✓
DOO_FULFILLMENTLINE_PAYMENTTERMS_MISSING	Fulfillment Line Payment T...	Order Fulfillment Line	Submit		Not allowed	All roles	<input type="checkbox"/>	✓
DOO_FULFILLMENTLINE_SERVICEDURATION_UPDATE	DOO_FulfillmentLine_Ser...	Order Fulfillment Line	Update	Service Duration	Not allowed	All roles	<input checked="" type="checkbox"/>	✓

A specific constraint, 'Shipping Constraint 05', is selected and expanded. A callout arrow points from the 'Conditions' tab in the expanded view to the 'Applicable Roles' tab in the main table. The 'Applicable Roles' tab is highlighted with a red box.

The 'Shipping Constraint 05: Details' panel shows the configuration for this constraint:

- Conditions:** Shows 'All roles' selected (radio button highlighted).
- Validation Rule Set:** Set to 'PO VRS 05'.
- Scope:** Set to 'Any'.
- Record Set:** Set to 'Header Default Record Set'.
- Message:** 'The fulfillment line could not be updated because it belongs to PO XX.'
- Enabled:** Checked.

A note below the validation rule set says: 'Make sure you indicate who this constraint will apply to'.

A note next to the message says: 'If you don't generate packages after creating a validation rule set, then your new values won't appear in these columns'.

At the bottom left is the ORACLE logo.

Now we'll use the data we created in the Record Sets and Validation Rule Sets tab to create our Processing Constraint.

Practices: Overview

- 14-1: Creating a Processing Constraint
- 14-2: Creating a Revision with a Constraint

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Summary

In this lesson, you should have learned how to:

- Create a constraint entity
- Create a processing constraint



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Assigning Orchestration Processes

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture
	10 minutes	Practice
	25 minutes	Total

Learning Objectives

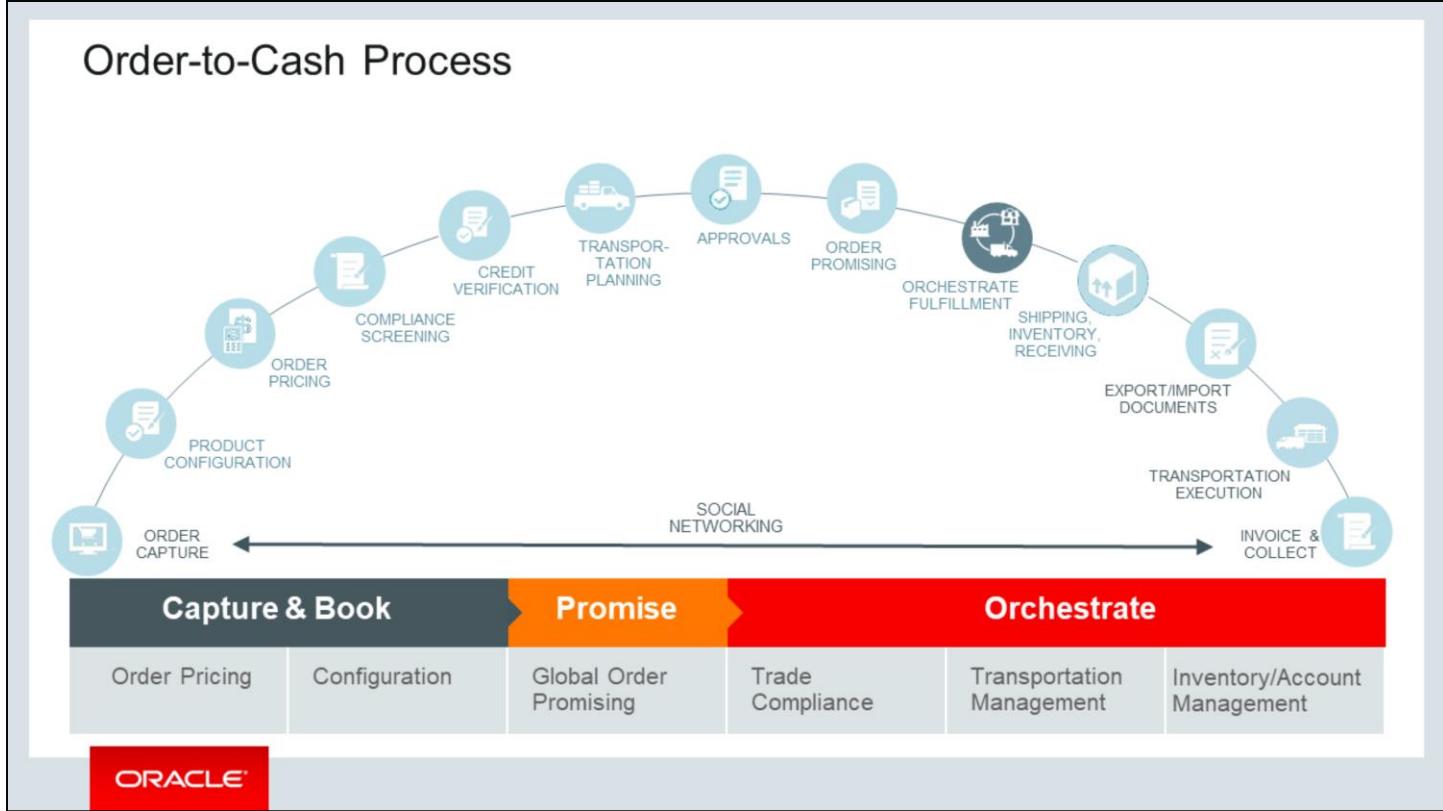


After you complete this lesson, you should be able to:

- Define a process assignment rule
- Explain orchestration groups

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then, we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on assigning orchestration processes to fulfillment lines.

Topics

- Process Assignment
- Explain Orchestration Groups



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Managing Orchestration Process Assignment

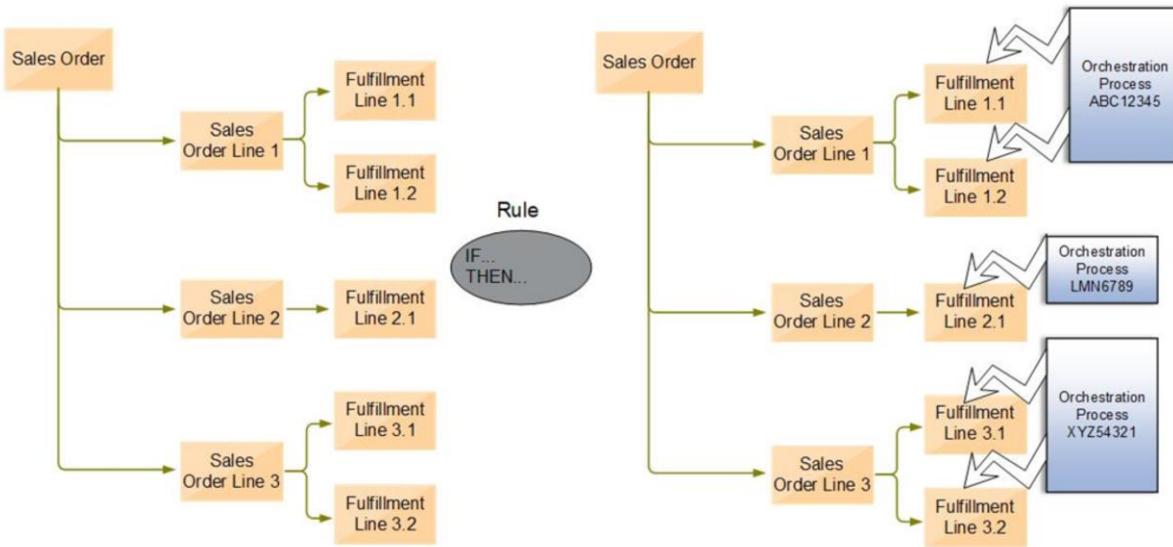
- After you submit an order, an orchestration process is assigned automatically to each fulfillment line of the order
- Process assignment rules are:
 - Rules that govern how to assign an orchestration process to a fulfillment line or lines of an orchestration order
 - Executed in the Oracle Business Rules engine
 - Built based on orchestration groups and using orchestration order attributes

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A few notes about process assignment rules:

- You don't need to specify versions or effectiveness dates in the process assignment rules because versions and dates are controlled at the orchestration process level. Because assignment rules aren't versioned, changes that are released take effect immediately. If you want to delay when changes take effect, you can save your rule without releasing it.
- An alternative user interface called the Visual Information Builder also is available for process assignment rules, as well as for these rules:
 - Pretransformation defaulting
 - External interface routing
- Orchestration groups are used for coverage and covered items, shipment set, and models.

Sales Order Before and After Process Assignment

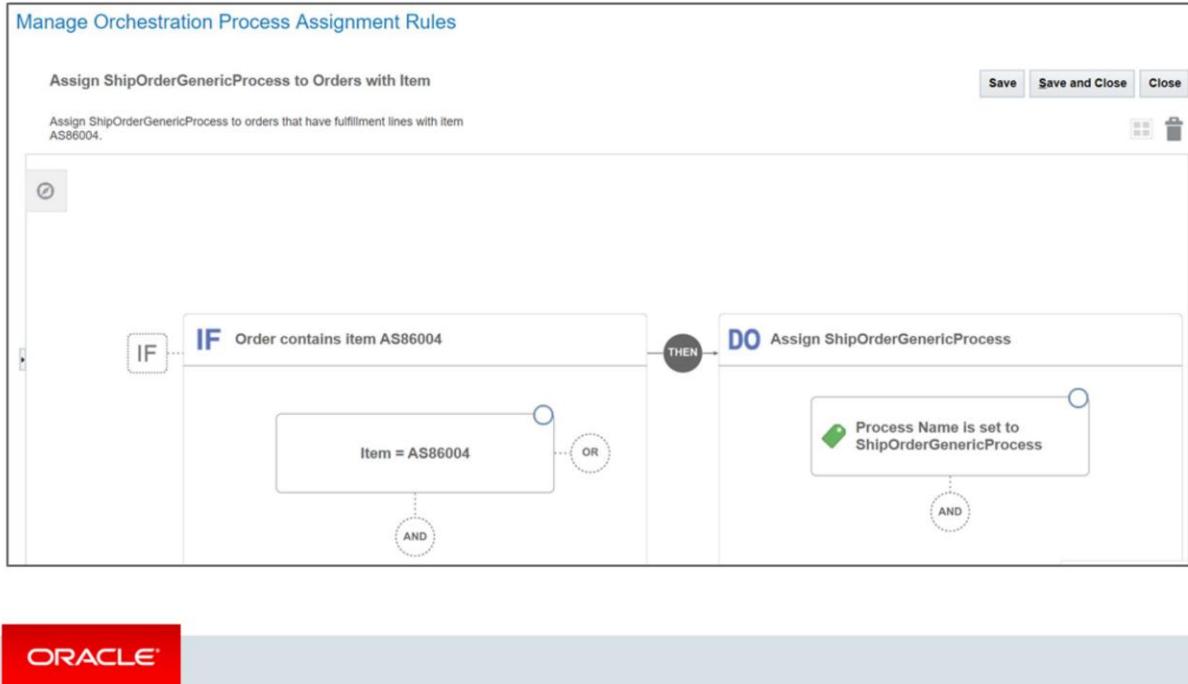


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This graphic shows, at a high level, what happens to a sales order after a process assignment rule is executed.

The sales order is shown after decomposition, which means that the sales order lines have been converted to fulfillment lines. Now we need to fulfill the lines by assigning them an orchestration process. A rule that you write assigns an orchestration process automatically, based on the conditions you set.

Managing Orchestration Process Assignment Rules



This graphic shows a process assignment rule that contains this condition: "If order contains item AS86004." If the fulfillment line contains this item, then the rule says to assign the ShipOrderGenericProcess to the fulfillment line.

Topics

- Process Assignment
- Explain Orchestration Groups



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Orchestration Groups

Types of orchestration groups:

- Shipment Set: A set of order lines that Order Management ships together as one group. All these order lines ship and arrive on the same date, although they might be spread across more than one package, depending on packing requirements.
- Model/Kit: A configured item that includes one or more configure options.
- Standard: Group of standard items (not configured) or finished items.

All fulfillment lines that belong to an orchestration group are assigned the same orchestration process.

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A fulfillment line belongs to an orchestration group. To streamline processing, Order Management assigns fulfillment lines to predefined orchestration groups before fulfillment.

Assign a process for each set of unique conditions. You can set up a default orchestration process assignment rule for each orchestration group by using the Otherwise construct.

Before you create process assignment rules, you must define orchestration processes or at least know the names you plan to give to orchestration processes. If you're using a decision table, then you must create bucket sets for condition parameters but not for action parameters.

Practice 15-1

- Creating an Orchestration Process Assignment Rule Using the Visual Information Builder

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Instructor should demonstrate this practice.

Summary

In this lesson, you should have learned how to:

- Define a process assignment rule
- Explain orchestration groups



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Defining Orchestration Processes

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	85 minutes	Lecture
	70 minutes	Practice
	155 minutes	Total

Learning Objectives

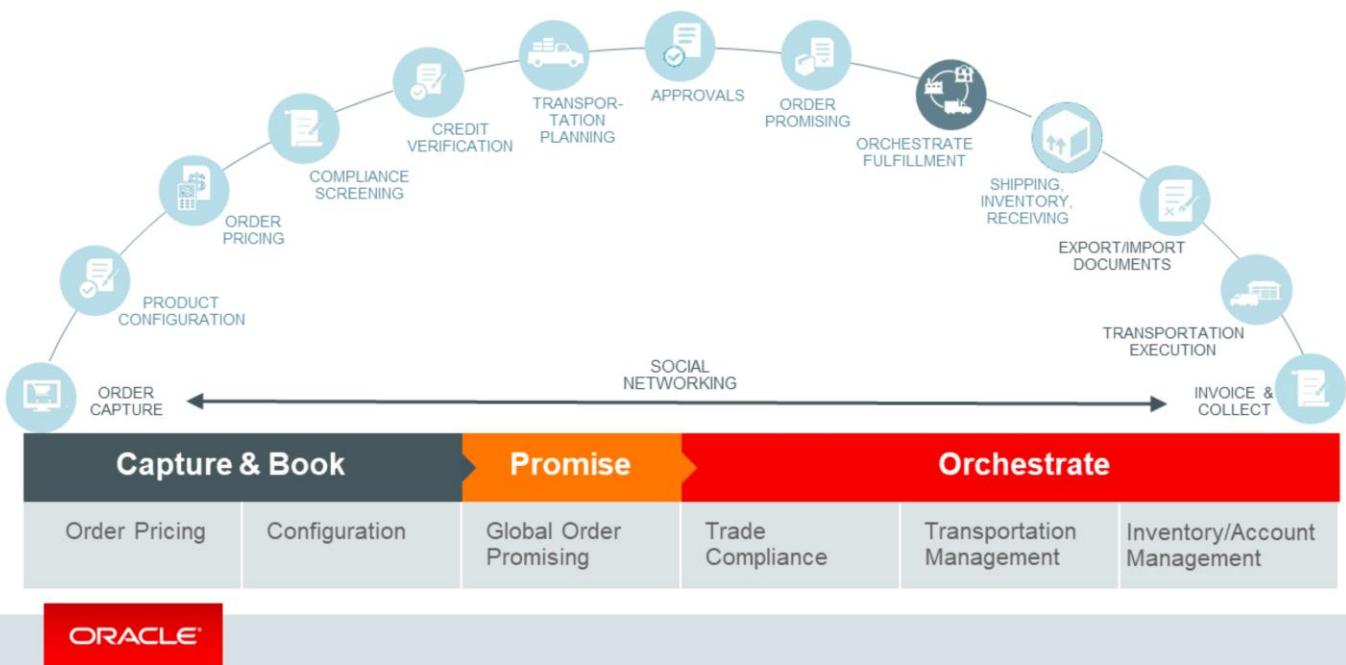


After you complete this lesson, you should be able to:

- Explain orchestration
- Explain what an orchestration process is
- Identify components of an orchestration process
 - Steps
 - Tasks
 - Task types
- Create an orchestration process step
- Explain branching

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on defining orchestration processes, which is part of Orchestrate Fulfilment.

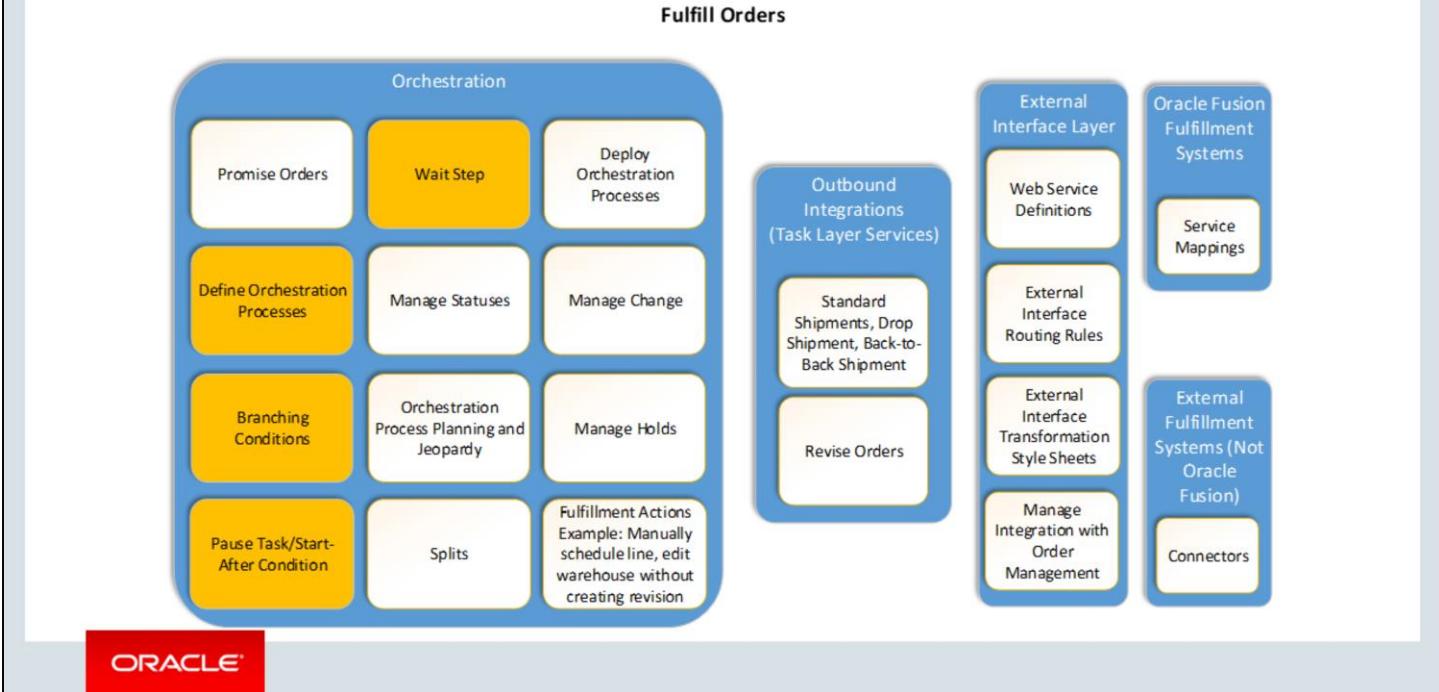
Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- Dependencies Between Steps
- Oracle Business Rules in Orchestration Process Definition
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Orchestration



Orchestration:

During runtime, orchestration occurs after:

- A sales order is submitted, or
- A channel order is automatically transformed and business rules automatically assign the appropriate orchestration process to the fulfillment lines of the order.

Task layer services send requests to downstream applications to perform orchestration tasks, such as schedule or ship. Task layer services also interpret the responses and updates from these applications.

Definitions: Orchestration is the automated sequence of fulfillment steps for processing an order. All the steps above are tasks of automated processes to fulfill sales orders. These automated processes are called orchestration processes. You can use existing predefined orchestration processes or define your own to mirror your business processes. The definition is much like a blueprint. The orchestration process definition includes the sequence of service calls, as well as planning details, change management parameters, and status conditions. The orchestration process instance is created at runtime. After an orchestration process instance is created, it's assigned to one or more fulfillment lines.

Defining orchestration processes is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning and jeopardy management
- Fulfillment line splits. **Note:** A partially shipped line can be shipped or canceled only.

Orchestration (continued)

- Deploy orchestration process
- Change management
- Hold management

Orchestration is part of order fulfillment. Also included in order fulfillment:

- Outbound integrations, which include:
 - Standard shipments, drop shipment, back-to-back shipment
 - Order revision
- External interface layer
 - Web service definitions
 - External integration routing rules
 - External interface transformation style sheets
 - Manage integration with Order Management
- Oracle Fusion fulfillment systems: Service mappings
- External fulfillment systems (not Oracle Fusion): Connectors

Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- Dependencies Between Steps
- Oracle Business Rules in Orchestration Process Definition
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Task Types

Task Type	Icon
Schedule	
Reservation	
Shipment	
Invoice	
Procurement	
Transportation Planning	
Trade Compliance	
Credit Check	
Return	
Fulfillment Order	
Pause	
Supply	
Template	

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Task types are groupings of related fulfillment tasks. Each task type contains a selection of services you can use to communicate with a specific type of fulfillment system, for example, a billing system. Services represent the types of actions that are being requested of the fulfillment system, such as creating the shipping request or canceling it.

When you create the steps of an orchestration process definition, you select from the predefined and user-defined task types and services. A task type may span multiple orchestration process steps.

Oracle Fusion Order Management provides these predefined task types:

- Schedule: Set of services that enable scheduling of a fulfillment line
- Reservation: Set of services that enable reservation of items of a fulfillment line
- Shipment: Set of services that communicate with a shipping fulfillment system to ship the items on a fulfillment line
- Invoice: Set of services that communicate with a billing system to create invoices against an order line
- Procurement: Set of services that enable sourcing and shipping of items of a fulfillment line from an outside organization
- Transportation Management: Set of services that communicates with a transportation management system to plan order line shipment. After the order lines are planned, the transportation details are sent back to Shipping for further processing
- Trade Compliance: Set of services that screen orders to verify compliance with trade restrictions, for example, denied party screening
- Credit Check: Set of services that validate orders to verify that the customer has sufficient credit to cover the cost of the purchase and holds an order line that doesn't pass the credit check

- Return: Set of services that communicate with a fulfillment system to return items of a fulfillment line
- Fulfill: Set of services that enable integration between Oracle Fusion Order Management and an enterprise resource planning (ERP) system. In this task layer service, you can have multiple fulfillment actions through a single request, such as shipment and invoicing.
- Pause: Set of services that temporarily pause processing to wait until a particular date or event before going to the next step. This task can be used to coordinate processing across the lines in an order. For more information, see: SCM – Implementing Order Management Cloud: Tips & Best Practices (Part 1),
<https://cloudcustomerconnect.oracle.com/posts/c94918d40f>
- Supply: Set of services that communicate with Oracle Fusion Supply Chain Orchestration to enable more complex sourcing of items on a fulfillment line
- Template: Web service wrapper that makes it possible to create and use your own task types, while maintaining data integrity in Oracle Fusion Order Management

Note: In this lesson you will observe a demonstration and complete an activity for an orchestration process that uses many of these tasks. Additional examples of orchestration processes are available as worked examples in the Oracle Fusion Help application and in the Oracle Fusion Order Management guides. For an example of an orchestration process that includes a Pause task, refer to the help topic that discusses pause tasks.

Topics

- Orchestration
- Task Types
- **Managing an Orchestration Process Definition**
- Dependencies Between Steps
- Oracle Business Rules in Orchestration Process Definition
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Predefined Orchestration Processes

- May suit your needs as they are or require some modification
- Available predefined processes:
 - DOO_OrderFulfillmentGenericProcess
 - DOO_BillOnlyGenericProcess
 - DOO_ReturnOrderProcess

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Order Management provides several predefined orchestration process definitions. You may find that these processes fit your organization's needs just as they are. If the orchestration process definitions mostly fit your needs but not exactly, then you can modify them as needed. Alternatively, you can create your own orchestration process definitions.

The next few slides explain how to create and modify orchestration process definitions.

Managing an Orchestration Process Definition

Step Definition

The screenshot shows the 'Create Orchestration Process Definition' page. At the top, there are tabs for 'Orchestration Process' and 'Status Conditions tab'. Below the tabs is a toolbar with actions like 'Save', 'Save and Close', and 'Cancel'. The main area is titled 'Process Details' and contains a table with columns: Step, Step Name, Step Type, Step Type Indicator, Parent Step, Subprocess Name, Task Type, and Task Type Indicator. A status bar at the bottom indicates 'Columns Frozen 2'.

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The orchestration process definition is a representation of your business' workflow to fulfill an order. Each step of an orchestration process:

- Represents a step of your business process
- Contains a variety of information, such as dependencies, planning, and change management
- The screenshot in the slide shows the Create Orchestration Process Definition page. This page contains a tab to list each step of your business process and contains groupings of information, such as steps, dependencies, planning, and change management. Use a different tab on the same page to manage status conditions.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Orchestration Process Definitions task. Select the task in the **Orders** functional area.
4. On the **Manage Orchestration Process Definitions** page, click the **Create** icon.

Managing an Orchestration Process Definition

The screenshot shows the 'Create Orchestration Process Definition' screen. In the 'Orchestration Process' section, fields include 'Process Name' (required), 'Version' (1), 'Description' (Cost of Change Rule: Click for Rule), 'Effective Start Date' (8/19/15), 'Effective End Date' (Set), 'Status' (New), and checkboxes for 'Parent process', 'Use flexfield attributes', 'Use transactional item attributes', and 'Replan instantly'. In the 'Process Details' section, the 'Step Definition' tab is selected, showing a grid of steps. The grid has columns: Step, Step Name, Step Type, Step Type Indicator, Parent Step, Subprocess Name, and Task Type. A tooltip 'Step Type' points to the Step Type column, and another tooltip 'Scroll for additional step attributes' points to the Task Type column. A blue box labeled 'Add step' points to the grid. The Oracle logo is at the bottom left.

- Header: Before you can create any steps, you must enter a name in the Process Name field and select a process class and set. A process class is a group of statuses that you can assign to an orchestration process. A set is a group of business units, such as orchestration processes, that are assigned to referential data.
- Step: A step of your business process. The name you enter appears everywhere in the application, including the Order Orchestration work area. When you add a step, the new step is added directly below the current location of the cursor.
- Step Type: Classification that indicates the usage of the step. Step type is used to control the user interface conditional read-only behavior for some attributes. It is also used during validation and when building the Business Process Execution Language (BPEL) artifacts from the orchestration process definition.
 - Conditional: Conditional node of the orchestration process. This is the point where one or two or more orchestration paths are executed, based on the results of a logical condition. You must specify a branching condition on a step that directly follows a conditional step.
 - Parallel: Parallel node of the orchestration process. This is the point where two or more orchestration paths are executed concurrently. You don't need to include conditions because all paths are executed.
 - Merge: Point where two or more orchestration paths reunite.
 - Service: Step where you define a service. The services that appear depend on the task type you select.
 - Subprocess: Set of steps that are defined by your organization so that they can be added as a unit to one or more orchestration processes. At runtime, the steps behave as if they were added individually to the process.

- Subprocess Name: Used if the step is part of a process within the orchestration process. A subprocess isn't called at runtime. The steps of a subprocess are added to the parent process at the time the BPEL artifacts are created. Only released subprocess definitions are available for selection.
- Task Type: A grouping of similar business tasks, for example, shipping tasks.
- Exit Criteria: The status that must be reached for the wait step to be considered completed. After the exit criteria are met, the process can proceed to the next step.
- Manual: Indicates that a user action is required on this step.
- Wait Step: A step that pauses the orchestration process until a response is received from another application. For example, after shipping is initiated in the Create Shipping task, you must wait for the shipment to be sent. The wait step is Wait for Shipment. You must build in a wait step for all task types except Schedule, Reservation, and Supply.
- Line Selection Criteria: Expression used for filtering criteria when all of the fulfillment lines aren't needed for the fulfillment task service invocation that's specified for the step
- Pause Rule: Expression used to determine whether processing must pause and if paused, must be released based on runtime data or user intervention. If you want to invoice multiple lines at the same time, then use the pause task. You can set up the pause task to pause one line when it completes the step before the invoice step. Set up the release rule to release the pause when the other line completes the step before the invoice step.

Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- **Dependencies Between Steps**
- Oracle Business Rules in Orchestration Process Definition
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Dependencies Between Steps

Step Definition

The screenshot shows the Oracle Order Management interface for creating an orchestration process definition. The 'Process Details' tab is active, and the 'Step Definition' sub-tab is selected. A table titled 'Dependencies' displays the relationships between steps. A step named 'Schedule' is highlighted. Two arrows point from the text 'Previous Step' and 'Next Step' to the respective columns in the table.

Use the Dependencies options to set up branching. The following explanations may help you understand why and how you might use branching.

- Parallel branching: Allows you to create multiple sequences (branches) of orchestration process steps that are executed at the same time. You don't need to include additional parameters to set up parallel branching.
- Conditional branching: Allows you to create orchestration process steps that are run under certain conditions. For example, your company might want to require order entry specialists to reserve quantity if the desired quantity is greater than or equal to 10. So you'll need to have a branched process, one with a reservation step. You could also add another condition, for example, if customer is ZYX Corporation, then phone the company before shipping the product. That means that this second branch will have an activity step (for phoning the customer). The Otherwise branch is the set of steps that are run if the conditions of the other branches aren't met. In this case, if the quantity is less than 10 and the customer is not ZYX Corporation, then run the steps of the Otherwise branch. You don't need to set an Otherwise branch. If this parameter isn't set for one of the branches and the conditions of none of the branches apply at runtime, then a null branch is run and all steps bounded by the branching nodes are skipped.

Previous steps and next steps are generated automatically as you add steps. The position of the cursor when a step is added determines its position in the flow. The new step is always added below the cursor. If you want a new branch, then position the cursor on the conditional or parallel step.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Orchestration Process Definitions** task. Select the task in the **Orders** functional area.
4. On the **Manage Orchestration Process Definitions** page, click the **Create** icon.

Dependencies Between Steps

Step Definition

The screenshot shows the 'Create Orchestration Process Definition' screen. In the 'Process Details' section, the 'Step Definition' tab is selected. A table titled 'Dependencies' lists steps and their relationships. A specific row for step 'Schedule' is highlighted. Annotations with callouts point to three key columns: 'Branching Condition' (highlighted in blue), 'Evaluation Sequence' (highlighted in purple), and 'Otherwise' (highlighted in pink). The 'ORACLE' logo is visible at the bottom left.

To create a branch, create a step and select the parallel or conditional step type. To create the first step of the branch, keep your cursor on the parallel or conditional step and click the Create Step icon. To create another branch, place your cursor on the parallel or conditional step and click the Create Step icon. The parallel or conditional step is considered the parent of all the branches.

Branching Condition:

Criteria that must be met for steps in a conditional branch to be processed. The branching condition is written as an If...Then statement.

Create the branching condition on the first step of the branch—that is, the first step that follows the conditional step. You must define branching conditions on steps that follow a conditional step, unless the Otherwise check box is selected.

Evaluation Sequence:

Order in which conditional branching conditions must be evaluated. The otherwise condition must be the highest number. Branching conditions are evaluated in ascending order, and no two branches can have the same number.

Otherwise:

If you create a conditional branch, then you must also create a branch that's executed if the conditions aren't met. To create the first step of the otherwise branch, select the conditional step and then click the Create Step icon. Create the step as you would other steps. Then select the Otherwise check box. You don't write a branching condition on the otherwise branch. Set the evaluation sequence to a number higher than that on other branches. If you don't want any of the branches to be executed if all conditions aren't met, then don't specify an otherwise branch but add conditions to each of the branches. A null branch is selected at runtime if no conditions are met.

Demonstration: 16-1

- Creating an Orchestration Process Definition with a Branching Condition



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Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- Dependencies Between Steps
- **Oracle Business Rules in Orchestration Process Definition**
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Oracle Business Rules (OBR) in Orchestration Process Definitions

These attributes in process definition use OBR to make runtime decisions for process behavior:

- Cost of Change: Ranks difficulty or cost of making a change to an order
- Compensation Pattern: Overrides processing of a step during change management
- Lead-Time Expression: Sets expected duration of a process step for process planning calculations
- Line Selection Criteria: Filters out fulfillment lines not needed to call a task service specified for a step
- Branching Condition: Sets criteria to meet before executing steps in a branch
- Pause Rule: Sets criteria to meet before both pausing and releasing a task



Orchestration business rules affect how an orchestration process behaves at runtime. You set up conditions for all rules in the same manner. Each type of rule has a different output, as explained below.

- Cost of Change: Number
- Compensation Pattern: Predetermined code that specifies the override pattern
- Lead-Time Expression: Number (BigDecimal)
- Line Selection Criteria: Fulfillment line ID
- Branching Condition: Boolean TRUE or FALSE
- Pause Rule: Optional and required parameters depending on context

Business Rules:

The rules engine that's used to run the orchestration business rules is an inference engine. This means that although rules are run in sequence, the output of a rule may cause a rule that was run previously to be run again, changing the sequence. Because data drives the output of a rule, it's not always possible to predict the execution sequence.

These components are used in Oracle Business Rules:

- Rule Conditions: The IF part of the rule is composed of conditional expressions, rule conditions that refer to facts. For example: IF Ordered Quantity < 20. The conditional expression compares a business term (Ordered Quantity) to the number 20 using a less than comparison. The rule condition activates the rule whenever a combination of facts makes the conditional expression true. In some respects, the rule condition is like a query over the available facts in the rules engine, and for every row returned from the query the rule is activated.
- Rule Actions: The THEN part of the rule contains the actions that are performed when the rule is run. A rule is run after it's activated and selected among the other rule activations using conflict resolution mechanisms, such as priority. A rule might perform several kinds of actions. Orchestration actions are specific to each rule attribute.

- Facts: In Oracle Business Rules, facts are the objects that rules reason on. Order Management provides a hierarchy of facts based on the Order Management order data for the orchestration dictionary.
- Dictionaries: An Oracle Business Rules container for facts, functions, globals, bucket sets, links, decision functions, and rule sets. Many of these objects are optional. The orchestration dictionary is embedded in the orchestration process definition.

Make sure you filter out lines that you don't want to process when you create an order management extension, business rule, or processing constraint. For more information, see lesson 12.

For more information, see: SCM – Implementing Order Management Cloud - Tips & Best Practices (Part 3), <https://cloudcustomerconnect.oracle.com/posts/ffc70a07c6>

Demonstration: 16-2

- Creating Pause Task Rules



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Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- Dependencies Between Steps
- Oracle Business Rules in Orchestration Process Definition
- **Validating New or Updated Orchestration Process Definitions**
- Setting Up Orchestration Processes for Coverage Items



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Validating New or Updated Orchestration Process Definitions

Validation of orchestration process definition occurs:

- At batch level
- Automatically when released

Errors

- Error icon appears next to the orchestration process name
- List of errors is retained until the next time the batch validation runs
- You can't release a process definition if it contains errors



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You can validate orchestration process definitions manually any time using the Validate action. Validation always occurs as part of the Release action.

Successful validation as part of release process:

- No error messages appear if an orchestration process is valid, but warning messages may appear.
- Orchestration process is given Released status.
- BPEL artifacts needed to deploy and run the orchestration process are created and stored.

Note: You won't release your process until the process definition elements are completed in a later lesson.

Topics

- Orchestration
- Task Types
- Managing an Orchestration Process Definition
- Dependencies Between Steps
- Oracle Business Rules in Orchestration Process Definition
- Validating New or Updated Orchestration Process Definitions
- Setting Up Orchestration Processes for Coverage Items



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Setting Up Orchestration Processes for Coverage Items

If you set up an orchestration process that processes a covered item or a coverage item, then you can use the same orchestration process instance for the covered item and for the coverage item, depending on your business requirements. If you use different instances, then you can coordinate these instances.

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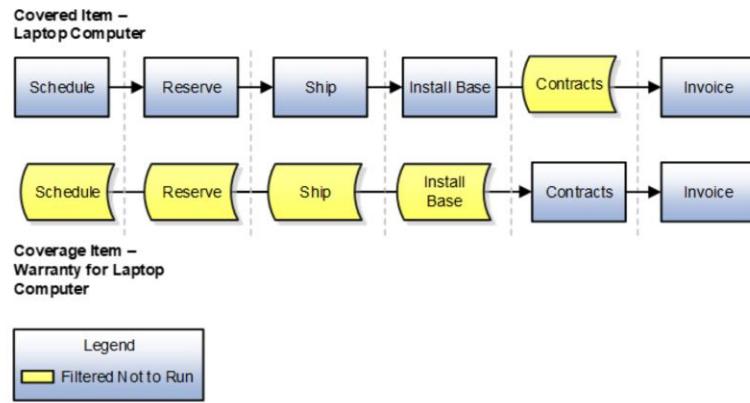
This section discusses considerations for setting up orchestration process definitions for coverage items.

Let's see what this looks like.

Setting Up Orchestration Processes for Coverage Items: Fulfillment Lines in Same Instance

If you use the same orchestration process instance, then:

- Define the same orchestration process assignment rule for the covered item and coverage item. Recommended approach.
- Specify an expression in the line selection criteria.
- Example



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Using the same orchestration process instance ensures that the orchestration process uses the same steps, in the same sequence, and at the same time for the covered item and for the coverage item.

If you define an orchestration process assignment rule that assigns the same orchestration process to the covered item as to the coverage item, then a single orchestration process instance processes these fulfillment lines. Two different rules could assign an orchestration process to these fulfillment lines. The fulfillment lines are processed together as long as the rules assign the same process to both covered and coverage item fulfillment lines. You define all these rules one time during setup.

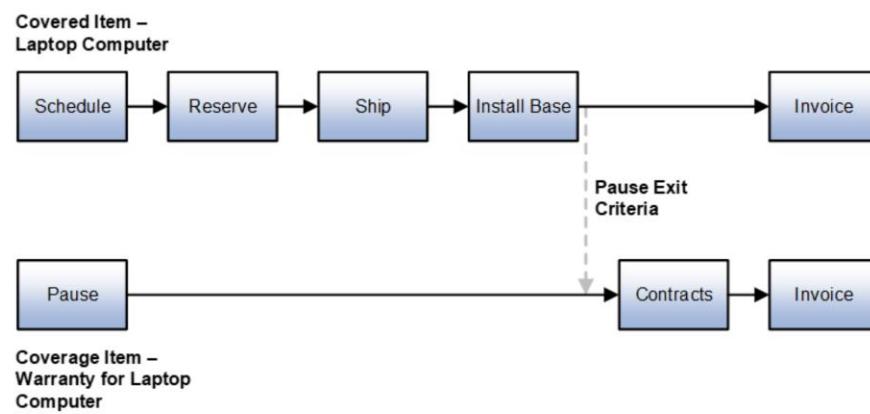
Specify an expression in the Line Selection Criteria for each orchestration process step that shouldn't run so that the step doesn't call the fulfillment task service.

The diagram shows an orchestration process with the following steps: Schedule, Reserve, Ship, Install Base, Contracts, and Invoice. For the covered item, the laptop computer, you want all these steps to run except for Contracts. For the coverage item, the warranty, you want only the Contracts and Invoice steps to run.

Setting Up Orchestration Processes for Coverage Items: Fulfillment Lines in Different Instances

If you need to use one orchestration process instance to process the fulfillment line for the covered item and another orchestration process instance to process the fulfillment line for the coverage item, then use the pause task to coordinate the two process instances.

Example



The diagram above shows how you can use a pause task to coordinate different orchestration process instances. The orchestration process steps for the covered line (laptop computer) are: Schedule, Reserve, Ship, Install Base, and then Invoice. The orchestration process steps for the coverage line (warranty for the laptop computer) are: Pause, Contracts, and Invoice.

You must coordinate these two processes so that the coverage line doesn't go through the contracts step before the covered line is shipped. You want the contract to be created only if the shipment is successful. You can set the pause exit criteria to a condition, such as Shipped Quantity is greater than zero.

When you add a coverage line to an existing order, something similar happens. A different orchestration process instance is assigned to the change order. The pause task coordinates the two processes.

Practices: Overview

- 16-1: Examining an Orchestration Process Definition
- 16-2: Modifying an Orchestration Process Definition
- 16-3: Creating Pause Task Rules

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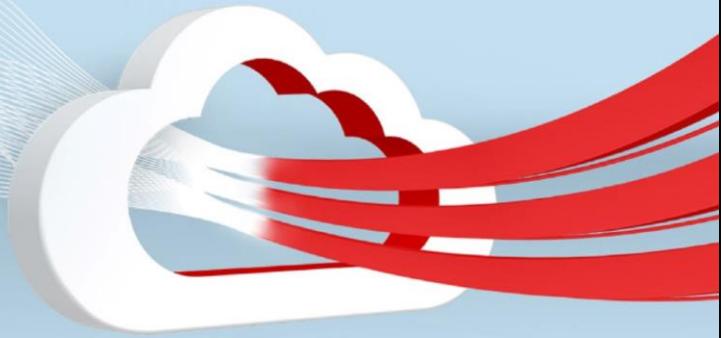
Summary

In this lesson, you should have learned about:

- Orchestration
- Orchestration processes
- Components of an orchestration process
- Step definition
- Task selection
- Task type selection
- Step dependencies
- Branching



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Managing Statuses

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	30 minutes	Lecture
	35 minutes	Practice
	65 minutes	Total

Learning Objectives

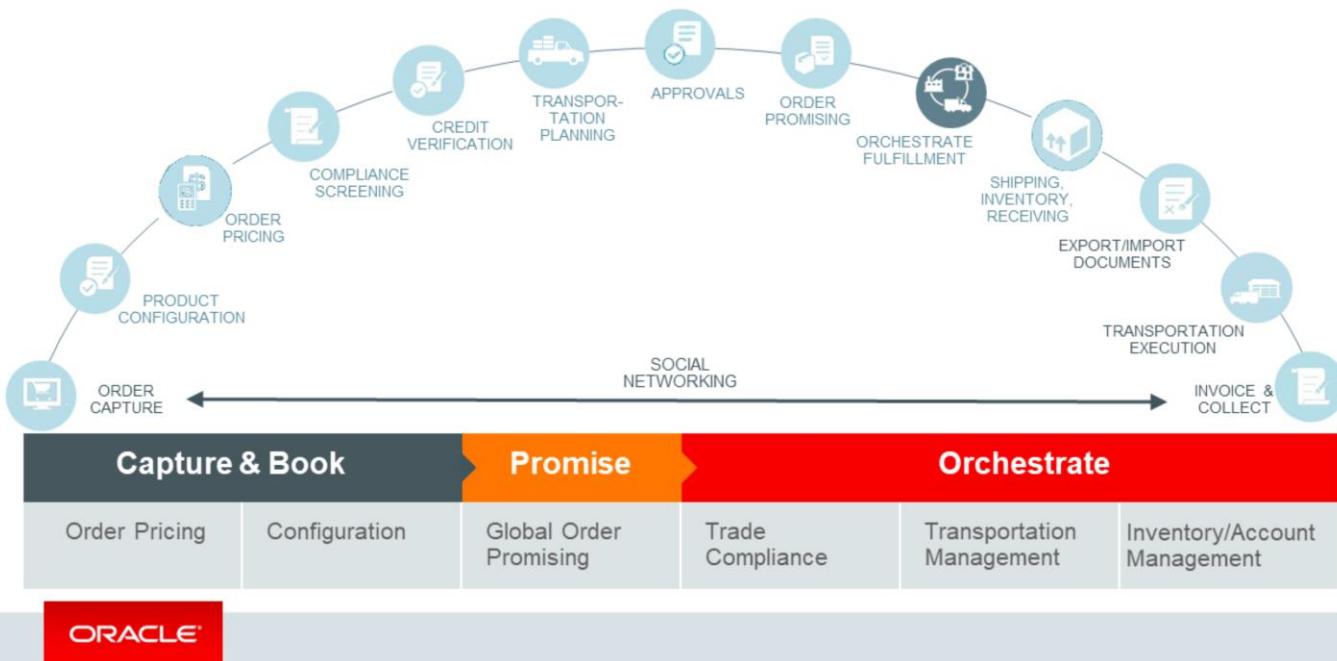


After completing this lesson, you should be able to:

- Create status values
- Explain how statuses are assigned
- Designate status values for fulfillment lines
- Create an orchestration process class

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on statuses, which is part of orchestrate fulfillment.

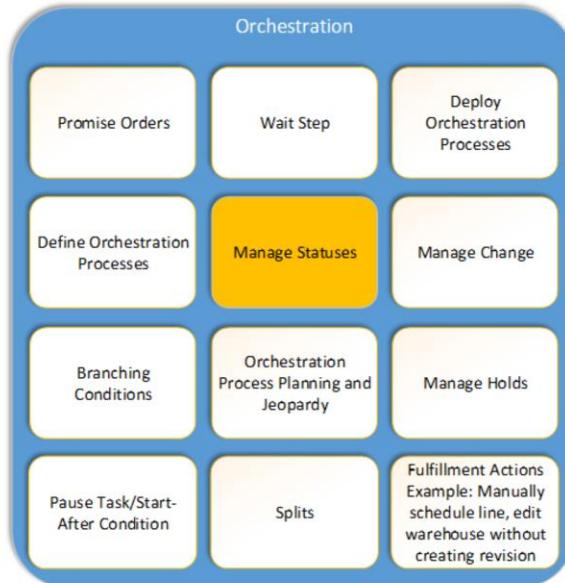
Topics

- Statuses: Overview
- Statuses in Order Management
- Status Setup



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Managing Statuses



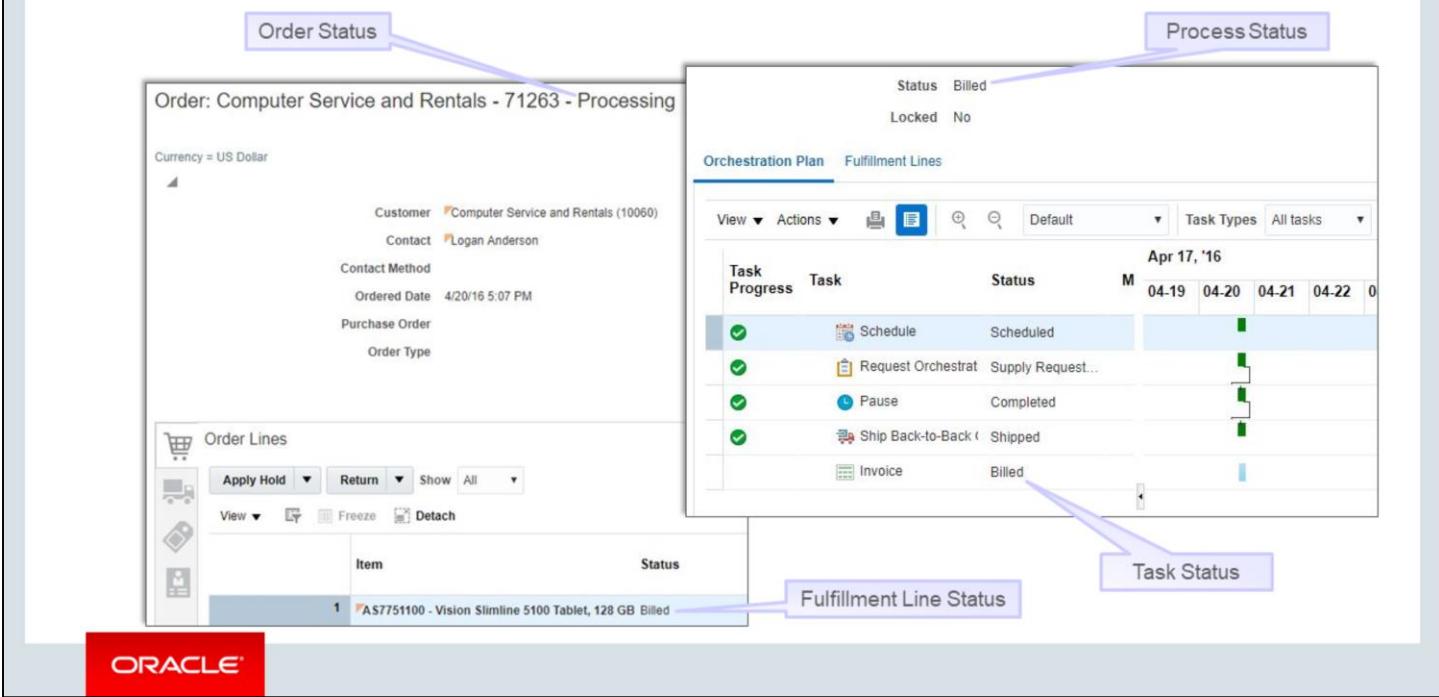
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A set of seeded fulfillment processes supports the order-to-cash flow. However, you can extend these processes to meet some of your specific business functions. For example, a certain class of your customers requires proof of delivery. But the seeded processes don't include an additional step after shipping before the order is closed. Besides an additional step, you need a new status, "Customer Accepted" or "Customer Rejected." You can extend the status framework to seed additional statuses and assign them to new or existing tasks that are defined within the orchestration process. Additionally, you can control how the status values are rolled up to the lines and orchestration processes.

Status management is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Branching conditions
- Pause tasks
- Wait steps
- Orchestration process planning and jeopardy management
- Orchestration process definition
- Fulfillment line splits
- Deploy orchestration process
- Change management
- Hold management

What Are Statuses?



Statuses convey the progress of order and process objects, including task, orchestration process, fulfillment line, order line, and order, so that order entry specialists can quickly identify problems and intervene as necessary. Statuses are typically refreshed after Oracle Fusion Order Management receives a response from a fulfillment system.

These screenshots show:

- Order status at the top of an order
- Fulfillment lines status on an order line
- Process status on the header of an orchestration process
- Task status on the Orchestration Plan tab of an orchestration process

To view the order:

1. In the Navigator, select Order Management, and then click Order Management.
2. On the Overview page, enter an order in the Search field and click the Search icon.
3. On the Manage Orders page, click the hyperlinked order.

To view the Orchestration Plan tab:

1. In the Navigator, select Order Management, and then click Order Management.
2. On the Overview page, enter an order in the Search field and click the Search icon.
3. On the Manage Orders page, click the hyperlinked order.
4. On the order, open the Actions menu and select Switch to Fulfillment View.
5. On the Order page, select the Fulfillment Lines tab.
6. In the Fulfillment Lines table, click the hyperlinked orchestration process number.

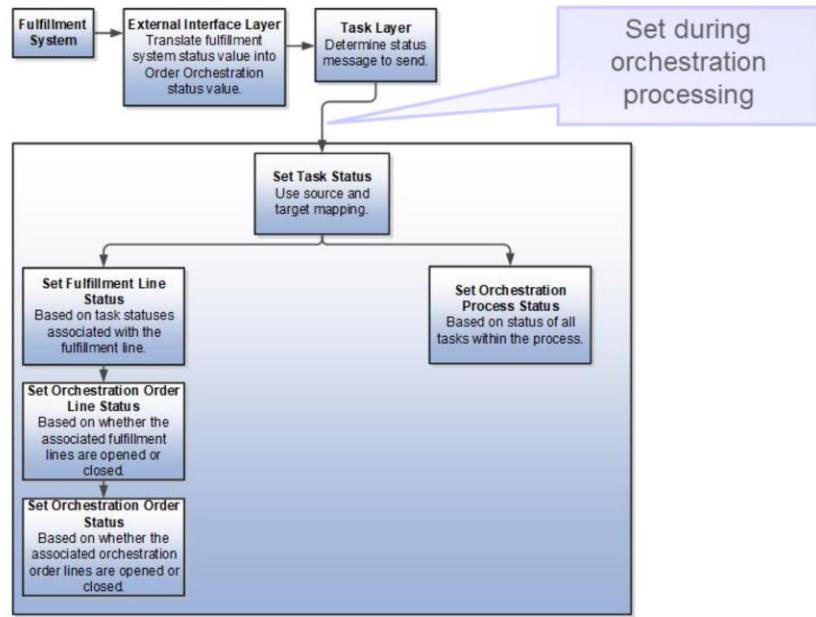
Topics

- Statuses: Overview
- Statuses in Order Management
- Status Setup



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How Statuses Are Assigned



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The diagram in the slide depicts how statuses are assigned. When a response comes from the fulfillment system, the task layer interprets the response to determine the task status for the task, fulfillment line, and orchestration process. Based on the task status, the fulfillment line status and orchestration process status are set automatically by evaluating the relevant status conditions in the process definition. The line status and order status are rolled up based on the fulfillment line status.

Topics

- Statuses: Overview
- Statuses in Order Management
- Status Setup



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Status Setup

Status setup involves two main activities:

- Creating status values: Create status codes and designate where you want the status codes used. For example, you might want to allow Invoiced to be used for the fulfillment line status.
- Creating status conditions: Create If-Then conditions that designate when you want a status code used. Example: If the Ship task status is Shipped, then use Shipped as the status of the orchestration process.



Order Management provides some predefined statuses. They may be enough for your organization. However, you can create your own statuses as needed.

The screenshot shows the Oracle Order Management interface with four main panels:

- Status Codes**: A list of status codes like ACT_SCHEDULED and SCHEDULED.
- Task Types**: A list of task types including Activity, CarrierPickup, CreditCardPayment, CreditCheck, and CustomerNotification.
- Fulfillment Line**: A list of fulfillment line status values like Change Pending and Not Started.
- Orchestration Process Class**: A list of orchestration process classes including DOO_DROP_S... and GSE_DOO_DR...

Annotations with purple boxes and arrows point to specific sections:

- An arrow points from the **Status Code** panel to the **Task Types** panel, labeled **Task Type**.
- An arrow points from the **Orchestration Process Class** panel to the **Fulfillment Line** panel, labeled **Fulfillment Line**.

The screenshots here show where you set up status values:

Status Codes

First you create status values. Later, you designate these statuses for use in fulfillment lines, tasks, or orchestration processes. This page contains all the statuses that can be used in Order Management.

Task Types

Designate statuses that can be used for the various task types. A task type is a grouping of related services that carry out fulfillment tasks. The predefined task types are available by default. Select the task type on the top of the page. At the bottom of the page, add the status values that you want to associate with this task type. The task types that are available in Order Management are described in the previous lesson.

Fulfillment Line Statuses

Designate statuses that can be used for fulfillment lines. Not Started is the initial status of a fulfillment line when an order is created. Designate the circumstances under which the statuses are assigned to fulfillment lines as part of each orchestration process definition. These rules are called fulfillment line status conditions.

Orchestration Process Classes

An orchestration process class is a group of statuses that can be applied to an orchestration process. When you create the orchestration process definition, you select an orchestration process class with statuses that are suitable for the orchestration process. You also create the actual status definitions in the orchestration process definition.

Navigation:

1. In the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Status Values task. Select the task in the **Orders** functional area.

Setting Up Task Status Conditions

Task Type Indicator	Type	Description	Predefined
Activity	Activity	Activity	—
CarrierPickup	CarrierPickup	Carrier Pickup	—
CreditCardPayment	CreditCardPayment	Credit Card Payment or Approval	—
CreditCheck	CreditCheck	Credit Check	—
CustomerNotification	CustomerNotification	Customer Notification	—

* Internal Status Value	* Internal Status Code	* Display Status Value	* Display Status Code	Mark as Complete	Default
Scheduled	ACT_SCHEDULED	Scheduled	ACT_SCHEDULED	<input type="checkbox"/>	—
Assigned	ASSIGNED	Assigned	ASSIGNED	<input type="checkbox"/>	—

While Order Management processes an order, the tasks of the assigned orchestration process are fulfilled step by step. A default set of sequential statuses is provided for the fulfillment tasks, but you can also create your own fulfillment task statuses for task types that are enabled for status pass-through. You can set display status values for any internal status, default or your own.

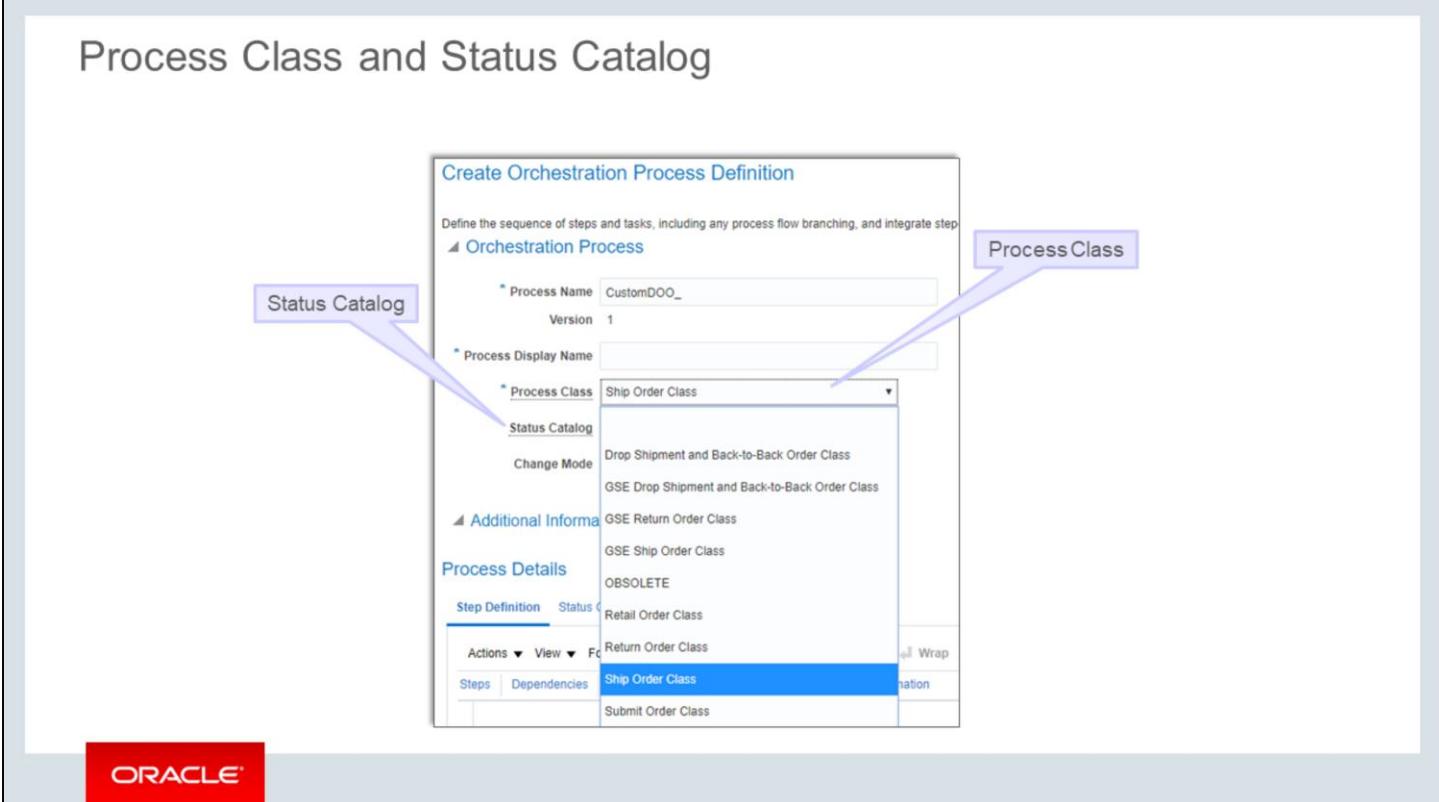
The screenshot above shows the places where statuses appear on the Manage Task Status Conditions page:

- Task type: Appears in the Type column.
- Received status: Appears in the Internal Status Value column. The status that's passed from an integrated application.
- Display status: Appears in the Display Status Value column. This is how the status that's passed from an integrated application appears on the user interface. For example, an integrated fulfillment application may send the status of a task as "Invoiced," but your company uses "Billed." You can select "Billed" in the Display Status Value column.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Task Status Conditions task. Select the task in the **Orders** functional area

Process Class and Status Catalog



When you set up status conditions for orchestration processes or fulfillment lines, you go into the orchestration process definition. When you are creating an orchestration process definition, you must select an orchestration process class. You may also opt for a status catalog. This screenshot shows the part of the orchestration process definition where you select a process class and status catalog. Both are at the top of the Create Orchestration Process Definition page.

Status Catalog

A grouping of items to which a set of the same statuses can be applied. Optionally, you can select a status catalog when you create an orchestration process definition. You can use catalogs and categories in multiple orchestration process definitions. Use a category to ensure that the same set of status conditions is applied to specific sets of fulfillment lines for an individual process. The same status conditions are applied to all fulfillment lines that have the item that belongs to that category. Define the catalogs in Oracle Fusion Product Model, Oracle Fusion Product and Catalog Management, or Oracle Fusion Product Hub.

Process Class

A set of status codes. You must select a process class when creating an orchestration process definition. When you select a process class, the status codes from that class are available for selection when you create the status conditions. These are the status codes that represent the status of the orchestration process and are seen throughout the application.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Orchestration Process Definitions task. Select the task in the **Orders** functional area.
4. On the **Manage Orchestration Process Definitions** page, select an orchestration process, and then click the **Create** icon.

Setting Up Status Conditions

The screenshot shows two windows from the Oracle Order Management and Fulfillment Cloud Implementation interface. The top window is titled 'Orchestration Process Status Values' and lists four status values: 'Scheduled', 'Awaiting Fulfilment Line A', 'Awaiting Fulfilment', and 'Requisition Requested'. Each value has a sequence number (100, 110, 120, 130) and an expression. The bottom window is titled 'Edit Status Rule Set' and shows a 'Conditions' section with the same four status values and their expressions. A purple callout points to the top window with the text 'For Orchestration Processes', and another purple callout points to the bottom window with the text 'For Fulfillment Lines'. The Oracle logo is visible at the bottom left.

* Sequence	* Status Value	* Expression
100	Scheduled	"Schedule" = "SCHEDULED"
110	Awaiting Fulfilment Line A	"Procure" = "AWAIT_FLINEAGGREGATE"
120	Awaiting Fulfilment	"Procure" = "AWAIT_FULFILLMENT"
130	Requisition Requested	"Procure" = "DOOREQREQUESTED"

* Sequence	* Status Value	* Expression	Notify External Systems
100	Scheduled	"Schedule" = "SCHEDULED"	<input type="checkbox"/>
110	Awaiting Fu	"Procure" = "AWAIT_FLINEAGGREGATE"	<input type="checkbox"/>
120	Awaiting Fu	"Procure" = "AWAIT_FULFILLMENT"	<input type="checkbox"/>
130	Requisition	"Procure" = "DOOREQREQUESTED"	<input type="checkbox"/>

While processing an order, the tasks of the assigned orchestration process are fulfilled step by step. A default set of sequential statuses is provided for the fulfillment tasks, but you can also create your own fulfillment task statuses and sequences for an orchestration process. You must determine the status to assign to an orchestration process at each stage of the process. For example, if a Schedule Carpet task has a status of Unsourced, then what status should the orchestration process have?

When you create an orchestration process definition, use the default status rule set to define status conditions for all fulfillment lines that can be processed by the orchestration process. Use fulfillment line-specific status conditions to apply different sets of statuses and rule logic for different items. For example, you could have one set of status conditions for textbooks and another set for paperback books.

The screenshot shows orchestration process statuses on the Orchestration Process Status Values subtab and fulfillment line statuses in the Edit Status Rule Set window.

Orchestration Process Status Conditions

You can:

- Designate the statuses that represent an orchestration process
- Select a preset group of orchestration process statuses
- Create rules that govern how statuses are attained

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This slide discusses what you can do with orchestration process status conditions.

Fulfillment Line Status Conditions

- A status catalog provides a means to differentiate status values by item characteristics.
- A status rule set is:
 - A set of rules that govern the conditions under which status codes are assigned to fulfillment lines
 - Used to apply a set of sequential statuses to the fulfillment line that is processed by the orchestration process

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Your organization might require different fulfillment lines within the same orchestration process to have different status progressions. For example, a model with shippable fulfillment lines and nonshippable fulfillment lines may require different statuses for each type of fulfillment line. A status catalog provides a means to differentiate status values by item characteristics.

Status Rule Set

Whether or not you use status catalogs, you can use status rule sets to apply a set of sequential statuses to the fulfillment line that's processed by the orchestration process. A status rule set is a set of rules that govern the conditions under which status codes are assigned to fulfillment lines. When you create a status rule set, you determine the status to assign to a fulfillment line at each stage of the process. For example, if a task has a status of Unsourced, then you can create a rule that's used at runtime to set the fulfillment line status to Unscheduled. A status rule set streamlines administration by enabling you to use a rule set with any number of fulfillment lines, rather than by entering separate rules for each fulfillment line. You can also apply the same logic to multiple categories.

In the case where a parent and a child category refer to different status rule sets, the child takes priority. This allows you to define an All category to handle all items in one definition, as well as to add a subcategory for a subset of products that needs to use a different status rule set.

During order processing, the application assigns an overall status to each order. This status is determined by assigning the order the status of the fulfillment line that has progressed the furthest in the order life cycle. To determine the fulfillment line status, the application evaluates each of the status conditions of the fulfillment line sequentially. The true condition with the highest sequence number determines the status of the fulfillment line. If you select Notify External Systems, then Oracle Fusion Order Management raises an event, which an order capture system can subscribe to.

Caution: If you use the Manage Configuration Packages page to migrate test instance data to a production environment, then don't change the status rule set name in either instance. Changing the name may prevent references to other data in the orchestration process from being updated.

Practices: Overview

- 17-1: Creating a Status Value and Enabling It for Fulfillment Lines
- 17-2: Creating a Status Value and Enabling It for Pass-Through
- 17-3: Creating an Orchestration Process Class
- 17-4: Creating Status Conditions for an Orchestration Process

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Summary

In this lesson, you should have learned how to:

- Create status values
- Explain how statuses are assigned
- Designate status values for fulfillment lines
- Create an orchestration process class



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Planning Orchestration Processes

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture and Demo
	5 minutes	Practice
	20 minutes	Total

Learning Objectives

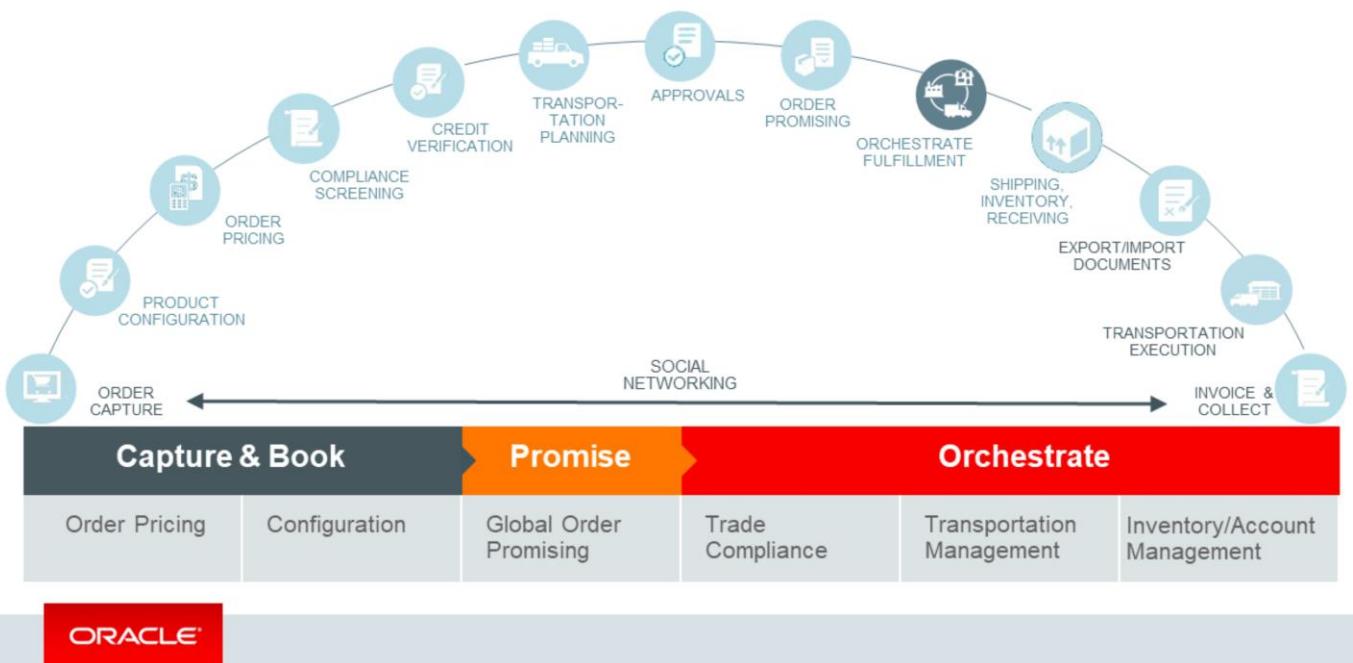


After you complete this lesson, you should be able to:

- Define the fulfillment completion step
- Explain the difference between default lead time and configured lead time (lead-time expression)

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on orchestration process planning, which is part of Orchestrate Fulfillment.

Orchestration Process Planning



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Updates to planning values can be processed automatically, or you can schedule them for processing at specific intervals. Most planning updates occur when a task is completed. The planning service automatically manages the calculations based on the conditions and rules you provide at setup. For example, you can configure the lead times you want for task planning based on static values or business rules.

Orchestration process planning is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process definition
- Fulfillment line splits
- Deploy orchestration process
- Change management
- Hold management

What Is Planning?

The screenshot shows a table of steps with various columns. A callout points to the 'Planning' column header, which is highlighted in blue. Another callout points to the 'Planning' column itself, which is also highlighted in blue. Below the table, five boxes point to specific columns: 'Planning default branch' points to the first column, 'Fulfillment completion step' points to the second column, 'Default lead time' points to the third column, 'Lead-time UOM' points to the fourth column, and 'Lead-time expression' points to the fifth column.

Steps	Dependencies	Planning	Change Management	Additional Information			
* Step	* Step Name	Planning Default Branch	Fulfillment Completion Step	Default Lead Time	Lead-Time UOM	Lead-Time Expression	Next Expected Task Status
300	Request Supply	—	—	1	Hours	Click for Rule	
400	Pause	—	—			Click for Rule	
500	Create Back-to-Back Shipment R...	—	—	1	Hours	Click for Rule	
600	Wait for Back-to-Back Shipment ...	—	✓		Days	Click for Rule	Shipped
700	Create Purchase Request	—	—	1	Hours	Click for Rule	
800	Wait for Procurement	—	✓	1	Days	Click for Rule	
900	Create Reservation	✓	—	1	Hours	Click for Rule	

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In Oracle Fusion Order Management, planning refers to the planning of orchestration processes and their tasks. This planning is internal to Order Management and isn't related to enterprise planning applications. To plan an orchestration process, the lead time of all the tasks of the process are summed up.

Process planning and jeopardy calculation are disabled by default. You can enable this functionality on the Manage Order Management Parameters page, which you access through the Setup and Maintenance work area.

Mechanisms to Run Planning

- Plan Orchestration Processes scheduled process
- Replan Instantly parameter on the orchestration process definition pages

The screenshot in the slide shows the planning parameters on the orchestration process definition. They are listed and explained here:

Planning Default Branch

If the orchestration process has multiple conditional branches, then the step you mark as the default branch is used for planning until one of the branches is selected during processing. The steps in the planning default branch appear in the Order Orchestration work area when the orchestration process is first assigned to a fulfillment line. If a different branch is taken, then the process is replanned and the display adjusts to match the new picture.

Note that in the case of parallel flow, all branches are used for process planning.

Fulfillment Completion Step

Select the step that marks completion of the task from the customer's standpoint. The chronological last step may not be the last step the customer cares about. For example, the orchestration process is planned with the requested ship date as the completion date for the step identified in the orchestration process as the last step.

Planning dates available on the order:

- Requested Ship Date
- Requested Arrival Date
- Required Fulfillment Date

This screenshot depicts the Planning group of options.

Default Lead Time/Lead Time UOM

Lead time is the expected duration for a given unit of work to be completed. If you don't define a lead-time expression for a step, then Order Management uses the default lead time. If you leave this field blank, then the field defaults to zero, and 0 is assumed during calculations.

Lead-Time Expression

Define lead times using Oracle Business Rules. This method provides flexibility when you define complex lead-time expressions.

Next Expected Task Status

This is used for displaying the expected status transitions in the status details tab of the orchestration plan on the Order Management work area.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Orchestration Process Definitions task. Select the task in the **Orders** functional area.
4. On the **Manage Orchestration Process Definitions** page, click the **Create** icon.

Practices: Overview

- 18-1: Adding Planning Parameters to an Orchestration Process Definition

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Summary

In this lesson, you should have learned how to:

- Define the fulfillment completion step
- Explain the difference between default lead time and configured lead time (lead-time expression)



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Deploying Orchestration Processes

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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10 minutes	Lecture and Demo
5 minutes	Practice
15 minutes	Total

Learning Objectives



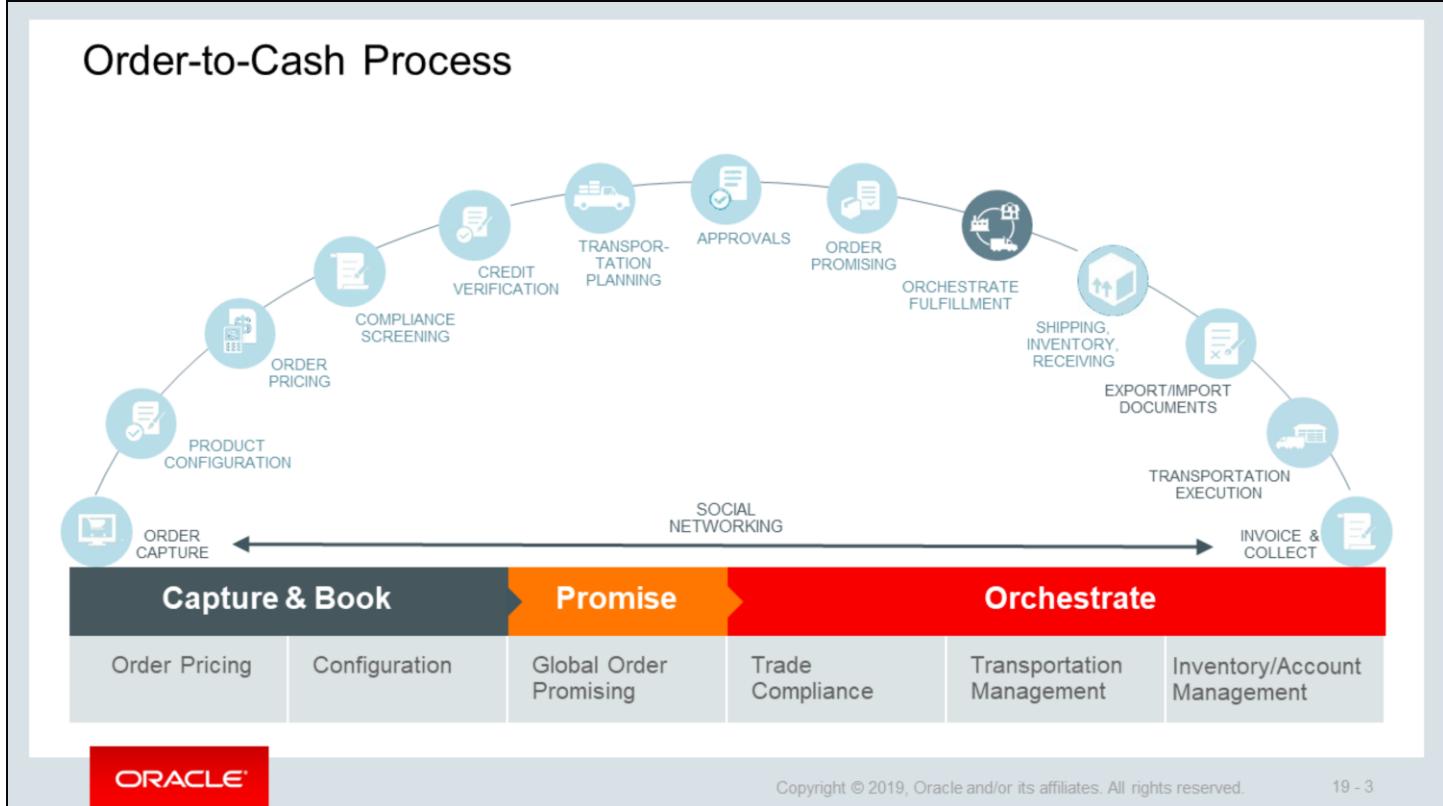
After you complete this lesson, you should be able to release and deploy orchestration processes.



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19 - 2

Order-to-Cash Process

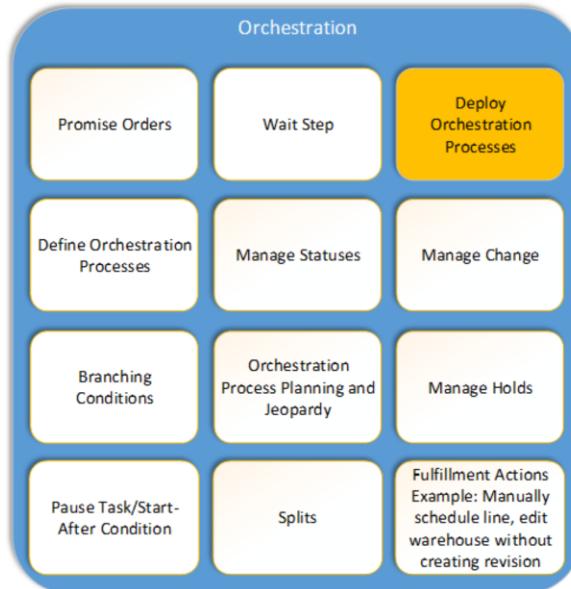


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on deploying orchestration process definitions.

Deploying Orchestration Processes



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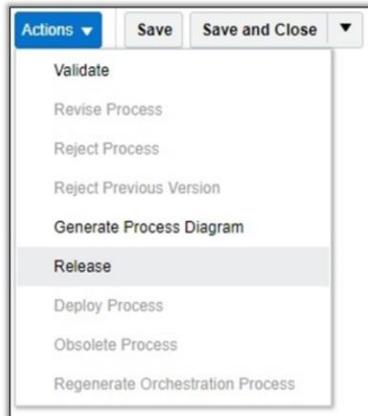
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19 - 4

Orchestration process deployment is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning and jeopardy
- Fulfillment line splits
- Change management
- Hold management

Releasing and Deploying the Orchestration Process Definition



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Release the orchestration process definition by selecting Release from the Actions menu. Validation runs, and the release process stops if errors occur. You can use the messages to determine what you need to fix. Then, try to release the process again. After you release the process, deploy it to the associated SOA server by selecting Deploy from the Actions menu.

This screenshot shows the Actions menu that appears at the top of the Manage Orchestration Process Definition pages. It shows the page-level actions you can use to manage the orchestration process definition: Validate, revise process, reject process, reject previous version, generate process diagram, release, deploy process, obsolete process, download generated process, regenerate orchestration process.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Orchestration Process Definitions task. Select the task in the **Orders** functional area.
4. Click the **Create** icon.

Practice

- 19-1: Releasing and Deploying an Orchestration Process Definition



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19 - 6

Summary

In this lesson, you should have learned how to release and deploy orchestration processes.

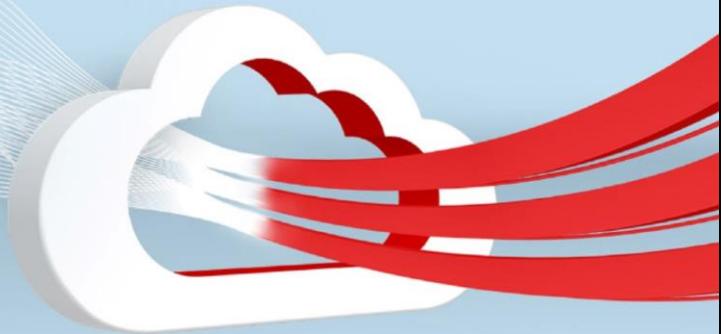


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20



Managing Jeopardy

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule: **Timing** **Topic**

20 minutes	Lecture and Demo
25 minutes	Practice
45 minutes	Total

Learning Objectives

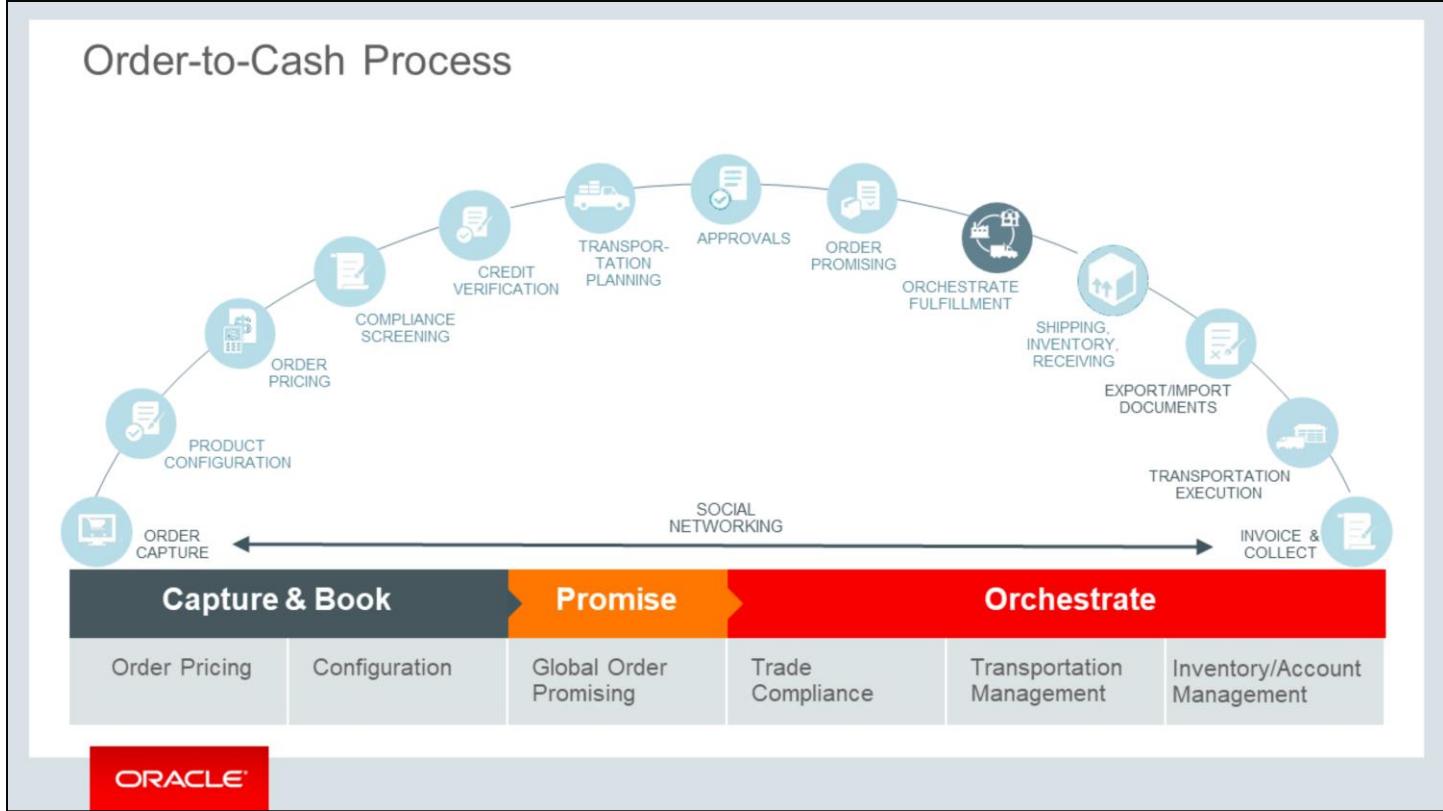


After completing this lesson, you should be able to:

- Define jeopardy
- Manage jeopardy priorities
- Demonstrate where to see jeopardy information in the Order Orchestration work area
- Manage jeopardy thresholds
- Define jeopardy score

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Order-to-Cash Process



The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on jeopardy, which is part of Orchestrate Fulfillment.

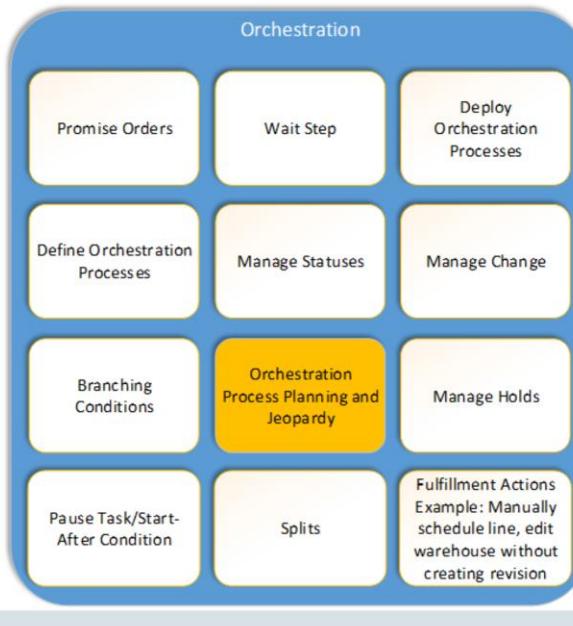
Topics

- Jeopardy: Explained
- Jeopardy Priority
- Jeopardy Thresholds



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Managing Jeopardy



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Updates to jeopardy values can be processed automatically, or you can schedule them for processing at specific intervals.

Managing jeopardy is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Fulfillment line splits
- Deploy orchestration process
- Change management
- Hold management

What Is Jeopardy?

The screenshot shows the Oracle Order Management interface for an order titled "Computer Service and Rentals - 12386 - Processing". The top section displays basic order details: Source Order 032114_241 - BM1 | Currency = US Dollar, Customer Computer Service and Rentals (10060), Contact, Contact Method, Ordered Date 3/21/14 4:27 PM, Purchase Order, and Order Type. Below this is a table titled "Order Lines" with columns: Item, Status, Duration, Period, and Quantity. A single row is shown: Item AS46334 - Vario 5000 Tablet, Status Created, Duration, Period, and Quantity 1. A "Runtime jeopardy indicator" is highlighted with a blue box and a red circle around the small yellow icon in the status column. The Oracle logo is at the bottom.

Jeopardy

- Indicates the severity of the delay of a task in an orchestration process. Jeopardy indicators appear in the Order Management work area, so that an order entry specialist can quickly identify the fulfillment lines that have issues. The screenshot in the slide shows the runtime jeopardy indicator on the order line.
- Is based on forward and backward planning across an orchestration process, which calculates the accurate promise dates for each task. When one of these tasks is delayed, jeopardy indicates how severe the delay is, based on the jeopardy settings.
- Is calculated when planning runs. You can use it on planned dates, as well as on actual dates. This means that an order manager can learn about jeopardy conditions before they actually happen, so that the order manager can provide remedies to maintain customer satisfaction.
- Process planning and jeopardy calculation are disabled by default. You can enable this functionality on the Manage Order Management Parameters page, which you access through the Setup and Maintenance work area. If enabled, jeopardy score and priority are assigned every time the orchestration process is planned or replanned.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Order Management**.
2. On the **Overview** page, select **Manage Orders** from the **Tasks** menu.
3. On the **Manage Orders** page, search for order does not contain X, and click the **Search** button.
4. In the **Search Results** table, click a hyperlinked order number.

Topics

- Jeopardy: Explained
- Jeopardy Priority
- Jeopardy Thresholds



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Managing Jeopardy Priorities

The screenshot shows a table titled "Manage Jeopardy Priorities" with the instruction "Enter values for the jeopardy score." Below the table are "View" and "Format" dropdown menus. The table has columns for "Priority", "Minimum Score", and "Maximum Score". It contains three rows: "LOW" (with scores 10 and 150), "MEDIUM" (with scores 150 and 250), and "HIGH" (with scores 250 and 550). Three callout boxes point to specific cells: one to the "Priority" column header, one to the "Minimum score" cell for LOW, and one to the "Maximum score" cell for HIGH.

* Priority	* Minimum Score	* Maximum Score
LOW	10	150
MEDIUM	150	250
HIGH	250	550

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Jeopardy priority is the level of risk associated with the delay of a task. On the Order Management work area, jeopardy priority is classified as Low, Medium, or High.

Define jeopardy priorities to specify the jeopardy score range for each priority. The priority categories of Low, Medium, and High are predefined. You can modify the jeopardy score range for each priority to suit your business needs, as shown in the screenshot in the slide. You can't add or delete priorities or rename the default priorities. The minimum of each range must equal the maximum of the previous range.

The Jeopardy status of a fulfillment order line is the highest jeopardy score of any task in the orchestration process for that fulfillment line.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Jeopardy Priorities** task. Select the task in the **Orders** functional area.

Topics

- Jeopardy: Explained
- Jeopardy Priority
- Jeopardy Thresholds



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Managing Jeopardy Threshold Definitions

The screenshot shows the 'Edit Jeopardy Threshold Definition: Default Thresholds' page. At the top, there are buttons for Save, Save and Close, and Cancel. Below that, the 'Name' is set to 'Default Thresholds' and the 'Description' is 'Thresholds for a typical 20-day process'. The 'Code' is 'DOO_Default_Thresholds'. Under the 'Applicability' section, 'Process Name' and 'Task Name' are both set to 'All'. To the right, a callout box labeled 'Specificity parameters' points to these applicability settings. The 'Jeopardy Threshold Ranges' table has columns for Minimum Delay, Minimum UOM, Maximum Delay, Maximum UOM, Score, and Description. The table contains the following data:

Minimum Delay	Minimum UOM	Maximum Delay	Maximum UOM	Score	Description
0	Days	1	Days	1	Task is expected to be delayed by one day.
1	Days	2	Days	5	Task is expected to be delayed by 2 days at the most.
2	Days	4	Days	10	Task is expected to be delayed by minimum of 3 days and a maximum of 4...
4	Days	10	Days	150	Task is expected to be delayed by minimum of 5 days and a maximum of 1...
10	Days	999	Days	350	Task is expected to be delayed by minimum of 11 days.

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Use jeopardy thresholds to monitor and measure orchestration processes. Jeopardy thresholds are ranges of time that a task is delayed. You can define a set of ranges for a task of an orchestration process and then assign a score that indicates the severity of the delay.

When you create a jeopardy threshold, you apply it to one or more of these applicability parameters: Process name, task name, process version, task type. If you leave the applicability parameters at their default setting of All, then the jeopardy threshold applies to all tasks. You can have only one set of jeopardy thresholds that applies to all tasks.

This screenshot shows the Edit Jeopardy Thresholds page. You can have any number of threshold ranges in the definition and ranges are contiguous. Specificity parameters function this way:

When an orchestration process is assigned to an order line, the process is planned taking into account the lead time of steps in the orchestration process and certain key dates from the sales order, such as required completion date. Each task of the process has a planned start and completion date. The orchestration process is replanned when a task completes or when the scheduled process runs. Jeopardy runs when planning runs, so a task can be at risk and still not appear as in jeopardy because an event hasn't triggered planning to run.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Jeopardy Thresholds** task. Select the task in the **Orders** functional area

Managing Jeopardy Threshold Definitions

The screenshot shows the 'Create Jeopardy Threshold Definition' interface. It includes fields for 'Code' and 'Name', a 'Description' field, and an 'Applicability' section. The 'Applicability' section contains dropdowns for 'Process Name' (set to 'All'), 'Process Version' (set to 'All'), 'Task Type' (set to 'All'), and 'Task Name' (set to 'All'). A blue callout box labeled 'Specificity parameters' points to the 'Task Type', 'Task Name', and the 'Applicability' section.

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Order Management searches for a threshold that applies to the highest number of entities of the task. It searches for a threshold in this order:

1. Process name, process version, task name, and task type
2. Process name, process version, and task name
3. Process name and task name
4. Process name, process version, and task type
5. Process name and task type
6. Task name
7. Process name and process version
8. Process name
9. Task type

First, the application searches for a threshold that applies to all four entities of the task: Task type, task name, process name, and process version. All these entities appear in this screenshot. If a threshold for the first combination isn't found, then the application searches for a threshold that applies to the process name, process version, and task name of the task, and so on. If nothing matches, then the default is used. After an appropriate threshold is located, the score is dictated by the threshold that's assigned to the task.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Jeopardy Thresholds** task. Select the task in the **Orders** functional area.

Demonstration

- 20-1: Modifying Jeopardy Priorities



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Practice

- 20-1: Creating a Jeopardy Threshold Definition
- 20-2: Submitting an Order to See Runtime Planning Changes

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Summary

In this lesson, you should have learned how to:

- Define jeopardy
- Manage jeopardy priorities
- Demonstrate where to see jeopardy information in the Order Orchestration work area
- Manage jeopardy thresholds
- Define jeopardy score



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Promising Orders: Introduction and Overview

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture
	NA	Practice
	15 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to explain the key functionalities of Oracle Fusion Global Order Promising.



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Topics

- Architecture and Components
- Key Functionality

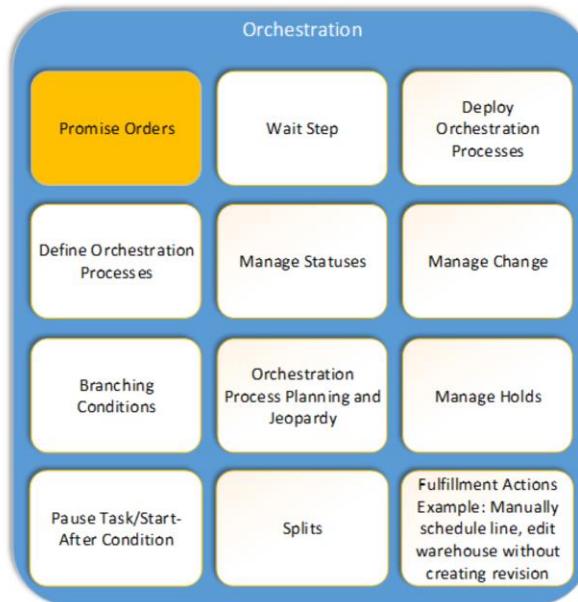


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Order Promising



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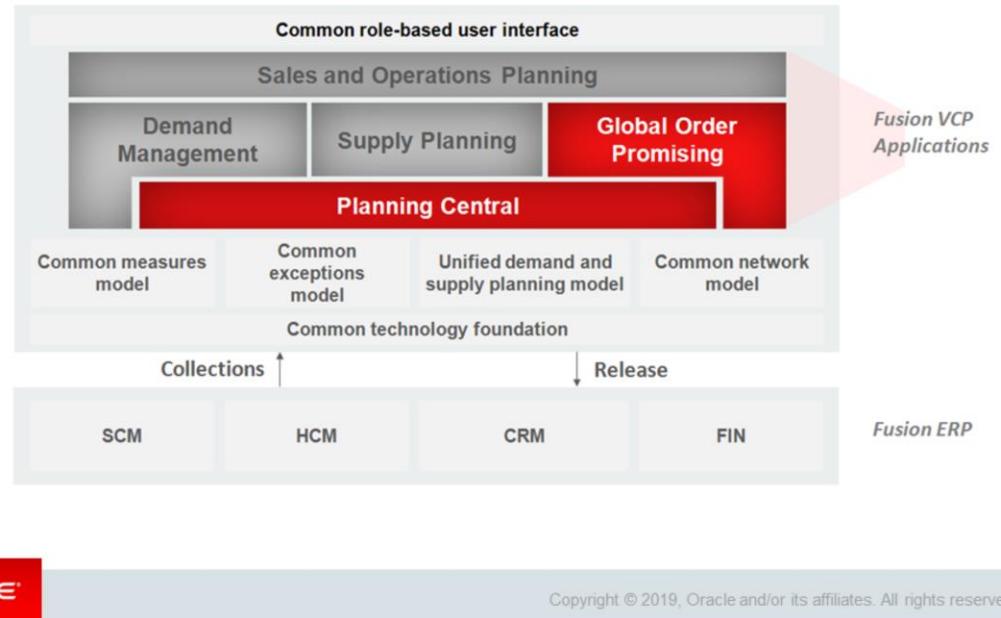
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21 - 4

Order promising is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning and jeopardy management
- Fulfillment line splits
- Deploy orchestration process
- Change management
- Hold management

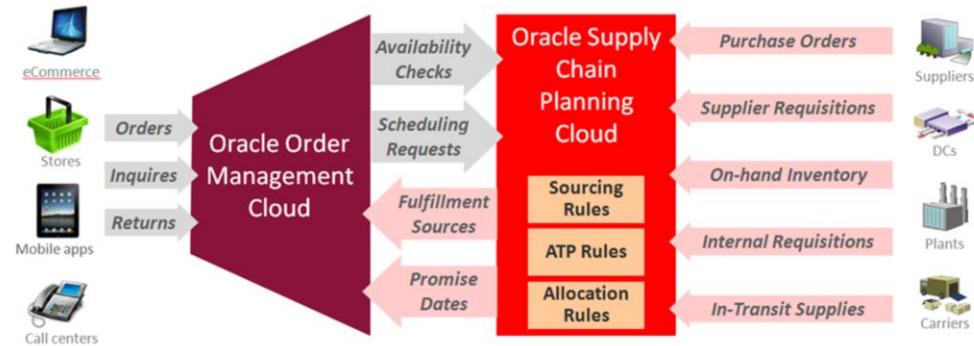
Functional Architecture: Oracle Supply Chain Planning Cloud and Global Order Promising



Global Order Promising is part of the overall Oracle Supply Chain Planning Cloud products, which is built on a common technology foundation.

This graphic depicts the architecture of Oracle Supply Chain Planning Cloud (labeled Oracle Fusion Value Chain Planning applications), including applications such as Global Order Promising. The graphic also shows the different models and common technology foundation, as well as the Oracle Fusion ERP application families that the supply chain planning applications collect data from.

Functional Integration Touchpoints



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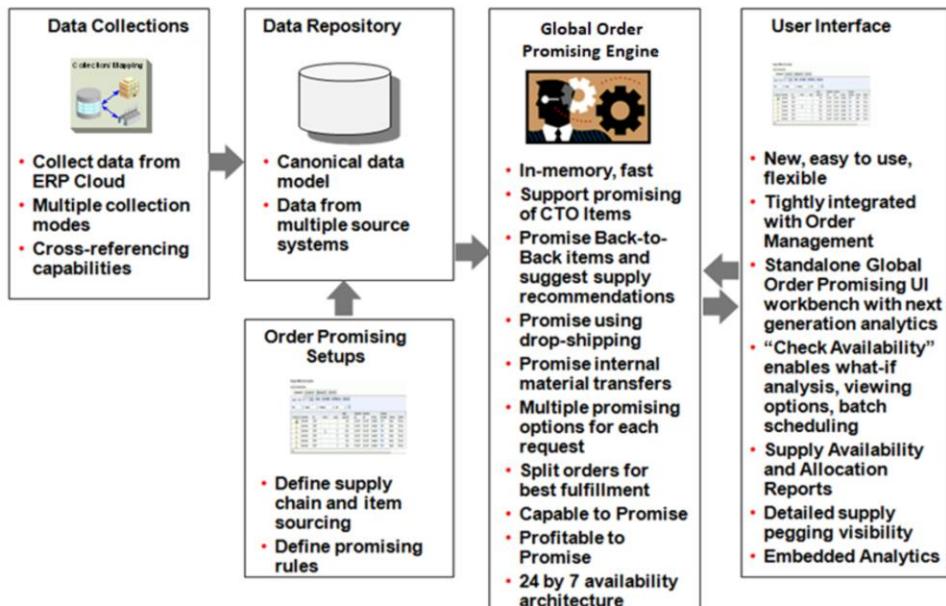
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21 - 6

Global Order Promising promises orders that Oracle Order Management Cloud sends to it. To receive orders, Global Order Promising uses supply chain network data and supplies that Oracle Supply Chain Planning Cloud collects using collections programs. Order promising is based on rules that you create in Supply Chain Planning Cloud.

This graphic depicts the information flow from different sources (such as eCommerce, stores, mobile apps, and call centers) to Order Management and then to Oracle Supply Chain Planning Cloud. Information is collected from suppliers, distribution centers (DCs), plants, and carriers.

Functional Components



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You collect data from various other Oracle Cloud modules into Oracle Supply Chain Planning Cloud and Global Order Promising. Global Order Promising collects these types of data:

- Static: Such as item structures, routings, suppliers, and transit times
- Dynamic: Transaction data, such as on-hand and purchase orders, also are collected from various other Cloud modules.

All data is collected into the Supply Chain Planning data repository. The Supply Chain Planning data repository also stores Global Order Promising setups, such as sourcing, available-to-promise, and supply allocation rules.

This graphic depicts the functional components of Global Order Promising: Data collections, data repository, order promising setups, order promising engine, and the user interface.

The Global Order Promising Engine is an in-memory engine that supports different promising functionality. Because it's an in-memory engine, data updates made in other Oracle Cloud modules must be collected into the Supply Chain Planning Data Repository. The updates then are reflected into the Global Order Promising Engine, either through real-time updates (for supply data) or by restarting the Global Order Promising Engine. You interact with the Global Order Promising Engine through a user interface in which you create what-if simulations, view availability options, and edit demands to improve order promising results in bulk.

Topics

- Architecture and Components
- Key Functionality



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Key Functionality

- Multiple promising modes
- Hierarchical fulfillment source determination
- Scheduling and availability check
- Alternative availability options
- Capable to promise
- Profitable to promise
- Split fulfillment
- Substitution of end items
- Configure-to-order promising
- Support for advanced fulfillment techniques
- Real-time supply update
- Work area to manage order backlog



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Global Order Promising supports the following key functionality.

You can promise orders in different modes based on:

- Infinite availability
- Lead times
- Supply availability

Through generic sourcing functionality in Supply Chain Planning Cloud, you can set up complex rules to determine sourcing hierarchically.

Global Order Promising can split the fulfillment of a line to promise:

- From different sources of supply
- Across different substitute items
- On different dates incrementally

Global Order Promising supports:

- Configured item promising
- Advanced fulfillment techniques, such as drop shipment, back to back, or internal material transfers
- Real-time supply updates, where supply within the Global Order Promising Engine can be updated in real time without restarting the Global Order Promising Engine.

Use the stand-alone Global Order Promising work area to view order promising analytics, manage demand backlog, and create order inquiries.

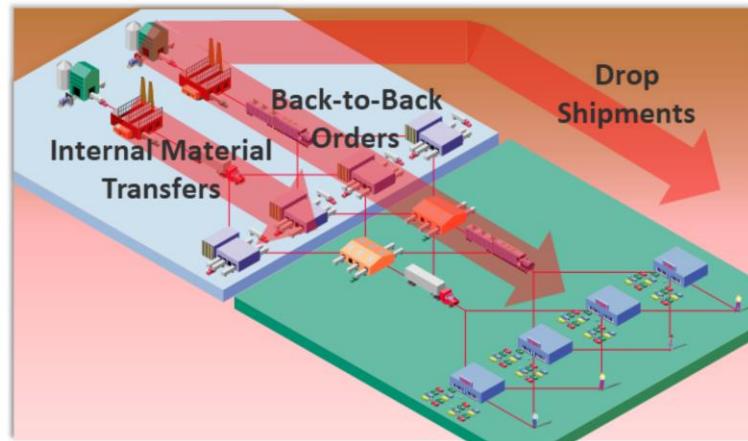
You can promise orders either automatically by using the Schedule action or interactively on the Check Availability page. Global Order Promising automatically generates multiple availability options based on different fulfillment sources, substitute items, or by considering splits.

(continued)

You can use advanced promising features, such as:

- Capable to promise: Promises orders by considering component and resource availability. Used in cases of insufficient availability of the requested item.
- Profitable to promise: Promises orders from sources that have the lowest cost.

Advanced Fulfillment Techniques



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Global Order Promising supports advanced fulfillment techniques, specifically:

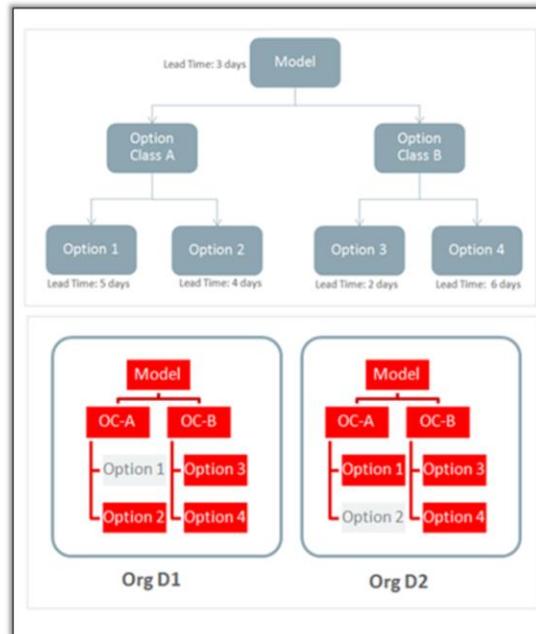
- Drop Shipment: Fulfillment mode where orders are shipped directly from a supplier to a customer location.
- Back to Back: Fulfillment mode where orders are demands in which the supply is hard pegged to the demand. Global Order Promising suggests the supply that must be created for a demand when it promises an order. It then respects the supply created and reserved against the demand, ensuring that this supply isn't used to promise any other demand.
- Internal Material Transfer: Fulfillment mode in which material is moved within the enterprise. Global Order Promising can promise internal material transfer orders and can also prioritize supply across internal and external orders.

The Advanced Fulfillment Techniques course discusses these points in greater detail.

The graphic is explained in the above notes.

Promising of Configure-to-Order Items

- Promise ATO and PTO configurations
- Consider lead times and availability at multiple levels
- Respect option-specific sourcing
- Consider availability of existing matching configuration



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Global Order Promising promises configure-to-order items, such as:

- Assemble to order (ATO)
- Pick to order (PTO)
- Hybrids (ATOs within PTOs)

When Global Order Promising promises these items, it considers lead times and availability at multiple levels of the model hierarchy to determine the best possible promise date.

Global Order Promising also supports option-specific sourcing rules. You can configure these rules to exclude some sources from fulfilling orders based on the option item that you select within the requested model.

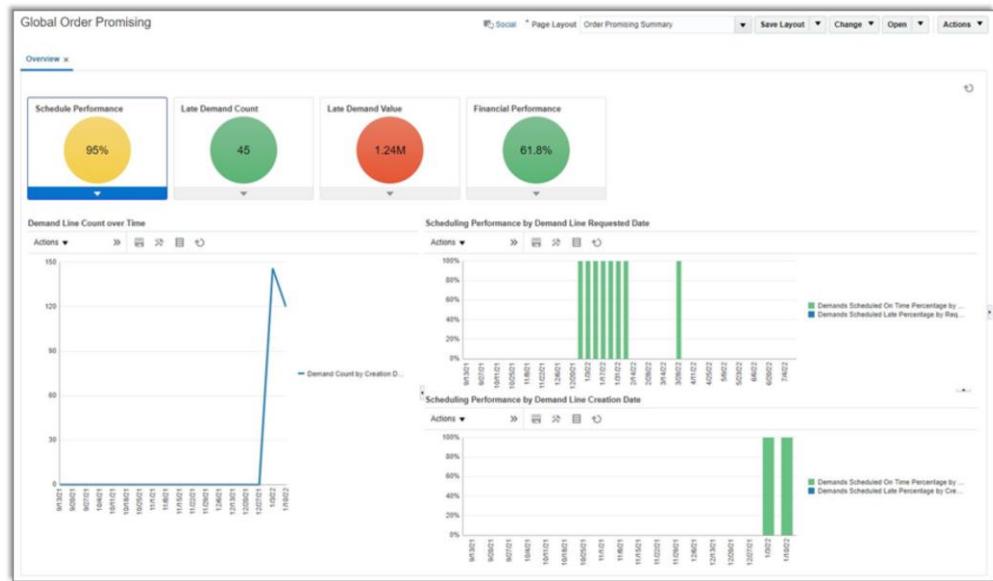
When promising ATO configurations, Global Order Promising also considers supply of existing, similar configurations that may have any supply already created (and available for the current order).

The graphic at the top shows lead times at different levels of the model hierarchy.

The graphic below it shows two models with their associated options. The graphic shows the two different warehouses from which the options are sourced.

Work Area for Managing Order Backlog

- View overall and detailed order promising metrics
- Identify late demands easily
- Mass edit demands and simulate promising
- Reschedule demands



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21 - 13

Global Order Promising also has a stand-alone work area that you can use to view overall and detailed order promising metrics, easily identify late demands, and then drill down to these demands. You can change the demand's input attributes and create what-if simulations to evaluate better ways of promising the order. You can reschedule demands from within the work area. Updated schedule information is automatically synced up with the Order Management Cloud.

This screenshot depicts the Global Order Promising Overview page.

Summary

In this lesson, you should have learned how to explain the key functionalities of Global Order Promising.



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21 - 14



Promising Orders: Rules

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	35 minutes	Lecture
	45 minutes	Practice
	80 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Describe how available-to-promise (ATP) and sourcing rules affect order promising
- Explain how to set up ATP and sourcing rules

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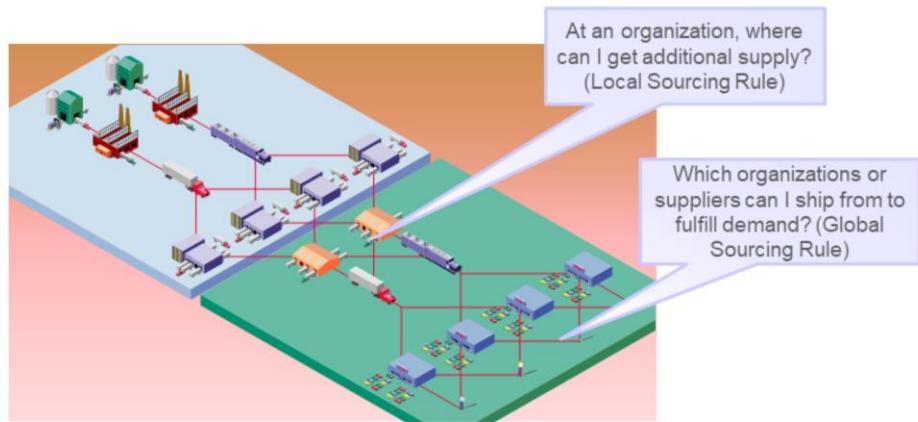
Topics

- Sourcing Rules
- ATP Rules



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Sourcing Rules



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Sourcing rules make up part of the supply chain network that Global Order Promising uses to promise orders.

Use Global Order Promising to address questions such as:

- At an organization, where can I get additional supply? (Local Sourcing Rule)
- Which organizations or suppliers can I ship from to fulfill demand? (Global Sourcing Rule)

Global and Local Sourcing Rules

Global Sourcing Rules	Local Sourcing Rules
Define orgs or suppliers from where an end demand is fulfilled	Define sources of supply for a specific organization
Are not associated with an org	Are specified at an org
Can contain only transfer or buy (drop ship) sources	Contain transfer, buy, and make sources

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Sourcing Rules

- Global sourcing rules: These rules define from where to fulfill or ship orders. Global sourcing rules aren't defined at any specific organization. They contain only transfer or buy sources. The buy sources correspond to drop ship suppliers.
- Local sourcing rules: These rules define how to create additional supply at an internal organization. Local sourcing rules are created at an org, by definition. They contain transfer, buy, and make sources.

Global Sourcing Rules and Assignment

Consider this business scenario:

Item Category or Item	Fulfillment Sources
Tablets	D1, D2, Allied Mfg/Site1
Latest Tablet	D1, D2
Latest Tablet to Big Customer	D1

An order for Latest Tablet to Big Customer can be shipped only from D1.

All tablets can be shipped from D1, D2, and a supplier.

But the Latest Tablet can be shipped only from D1 and D2.



Consider a scenario where all tablets within the item category Tablets can be fulfilled from these sources:

- Internal organization D1
- Internal organization D2
- Internal supplier, Allied Manufacturing

However, the Latest Tablet can be shipped from D1 and D2 only and can be shipped to Big Customer from D1 only. You can model this scenario through hierarchical sourcing rules, as described in the coming slides.

The table contains:

- Column headings: Item Category or Item, Fulfillment Sources
- First row: Contains Tablets in the Item Category or Item cell. The Fulfillment Sources cell for this row contains D1, D2, Allied Mfg supplier and Site 1 supplier site.
- Second row: Contains Latest Tablet in the Item Category or Item cell. The Fulfillment Sources cell for this row contains D1, D2.
- Third row: Contains Latest Tablet to Big Customer in the Item Category or Item cell. The Fulfillment Sources cell for this row contains D1.

Creating Sourcing Rules

- Create these sourcing rules:

Sourcing Rule	Source
TransferFromD1D2Allied	Transfer From: D1 Transfer From: D2 Buy From: Allied Mfg/Site1
TransferFromD1D2	Transfer From: D1 Transfer From: D2
TransferFromD1	Transfer From: D1

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To model the business scenario, create three global sourcing rules, as shown in the table.

The table contains:

- Column headings: Sourcing Rule, Source
- First row: Contains a sourcing rule called TransferFromD1D2Allied. The source is Transfer from: D1, Transfer from: D2, and Buy from: Allied Mfg/Site1.
- Second row: Contains a sourcing rule called TransferFromD1D2. The source is Transfer from: D1 and Transfer from: D2.
- Third row: Contains a sourcing rule called TransferFromD1. The source is Transfer from: D1.

Assigning Sourcing Rules

- Assign the sourcing rules as follows at different assignment levels within the same assignment set

Sourcing Rule	Assignment Level	Assigned To
TransferFromD1D2Allied	Item Category	Tablets
TransferFromD1D2	Item	New Tablet
TransferFromD1	Item and Customer	New Tablet and Big Customer

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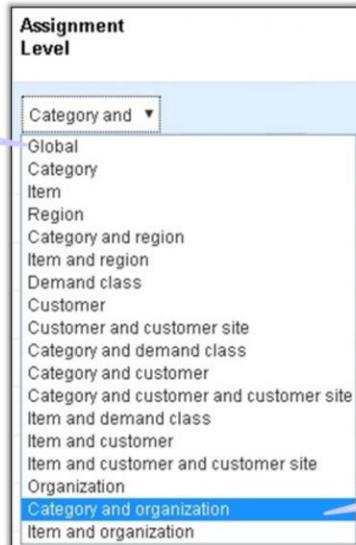
Then, assign the three sourcing rules to the category, item, and item-customer levels, as shown in the table. These rules allow you to model the business scenario that was described earlier.

The table contains the following column headings: Sourcing Rule, Assignment Level, Assigned To

- The first row contains a sourcing rule called TransferFromD1D2Allied. The assignment level is Item Category, and the assigned-to value is Tablets.
- The second row contains a sourcing rule called TransferFromD1D2. The assignment level is Item, and the assigned-to value is New Tablet.
- The third row contains a sourcing rule called TransferFromD1. The assignment level is Item and Customer, and the assigned-to value is New Tablet and Big Customer.

Supported Assignment Levels for Global Sourcing

Ensure that you have at least one sourcing rule assigned at the global level



Global Order Promising considers the sourcing rule assigned at the most granular level

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You can assign sourcing rules at multiple hierarchical levels, as shown. Global Order Promising considers the sourcing rule associated with the most granular assignment level and fulfills orders only from sources corresponding to this sourcing rule. Supported levels:

- Global
- Category
- Item
- Region
- Category and region
- Item and region
- Demand class
- Customer
- Customer and customer site
- Category and demand class
- Category and customer
- Category and customer and customer site
- Item and demand class
- Item and customer
- Item and customer and customer site
- Organization
- Category and organization
- Item and organization

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Global Order Promising**.
2. On the **Global Order Promising** page, click the **Tasks** panel tab, and select **Manage Assignment Sets**.
3. On the **Manage Assignment Sets** page, click **Search**. Select an assignment set, and click the **Edit** icon..”

Sourcing Rule and Assignment Setup: Example

The screenshot displays two windows from the Oracle Order Management application. On the left, the 'Edit Assignment Set: Planning EX9' window is shown. It includes fields for Name (Planning EX9), Description (Planning EX9 Assignment Set), Catalog (Planning Catalog), and a 'Sourcing Assignments' grid. The grid has columns for Assignment Level, Org Customer, Customer Site, Demand Class, Category, Item, Description, Sourcing Type, and Sourcing Rule or Bill of Distribution. Three rows are listed under 'Item and customer': AS6647333, AS6647332, and AS6647331, all associated with ABC Application So and 'Vision In Tab Mini Slimline 4000 Tablet, 1...' with 'Sourcing rule' type and 'XferToCust EX9' rule. On the right, the 'Edit Sourcing Rule: xfer-005' window is open. It shows the rule name (xfer-005), description (Transfer from 005), organization assignment type (Global), and planning status (active). The 'Sourcing Rule Effective Dates' section shows a start date of 3/11/16. Below it, the 'Effective Start Date 3/11/16: Sources' section contains a table with columns Type, Organization, and Rank. One row is present: Type 'Transfer from', Organization '005', and Rank '1'. A callout box labeled 'Example: Global sourcing rule' points to the top right corner of the Edit Sourcing Rule window. Another callout box labeled 'Assigning sourcing rules at multiple levels in an assignment set' points to the 'Assignment Level' column header in the Sourcing Assignments grid.

The screenshots in the slide show how you can assign global sourcing rules at different assignment levels within the same assignment set. In this case, the global sourcing rule is called Fulfill_from_D1_D2 (fulfill from D1 and then D2). The rule designates where to source the tables and in what sequence. The Edit Assignment Set window shows that Fulfill_from_D1_D2 is assigned to the Item assignment level.

Navigation

1. From the **Navigator**, select **Order Management**, and then click **Global Order Promising**.
2. On the **Global Order Promising** page, click the **Tasks** panel tab, and then select **Manage Sourcing Rules**.
3. On the **Manage Sourcing Rules** page, search for a rule.
4. Click the **Edit** icon.

Local Sourcing Rules

- Name, effectiveness date range
- At organization: D1
- Key Details:

Source Type	Source	Rank
Transfer From	M1	1
Make At	D1	2
Buy From	Component Supp/Site1	3

Make At is applicable if you can manufacture at an organization



You specify local sourcing rules and indicate supply sources at an organization. You must assign local sourcing rules to items and organizations through the assignment set, just as with global sourcing rules.

This table contains:

- Column headings: Source Type, Source, Rank
- First row: Contains a source type of Transfer From, a source of M1, and a rank of 1.
- Second row: Contains a source type of Make At, a source of D1, and a rank of 2. Make At applies if you can manufacture the item at an organization.
- Third row: Contains a source type of Buy From, a source of Component Supp/Site1, and a rank of 3.

Demonstration: 22-1

- Creating and Assigning Oracle Fusion Global Order Promising Rules



Topics

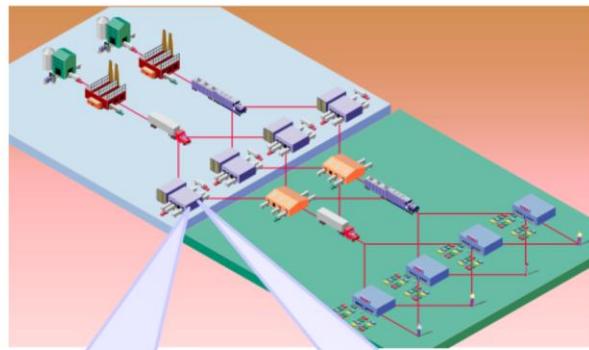
- Sourcing Rules
- ATP Rules



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ATP Rules

- Define how Global Order Promising searches for supply at an organization



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Available-to-promise (ATP) rules define how Global Order Promising searches for supply of an item at an organization. You can promise orders in different modes:

- Infinite availability-based: By assuming infinite availability for your items that aren't constrained
- Lead time-based: Based on lead times for items that have a very reliable supply chain
- Supply chain availability search: By looking at detailed supply availability

Questions to consider:

- Should I promise based on actual supply or on lead times, or should I assume infinite availability?
- Should I consider component and resource availability for an assembly?

Promising Modes

You can use any of the following promising modes for an ATP rule:

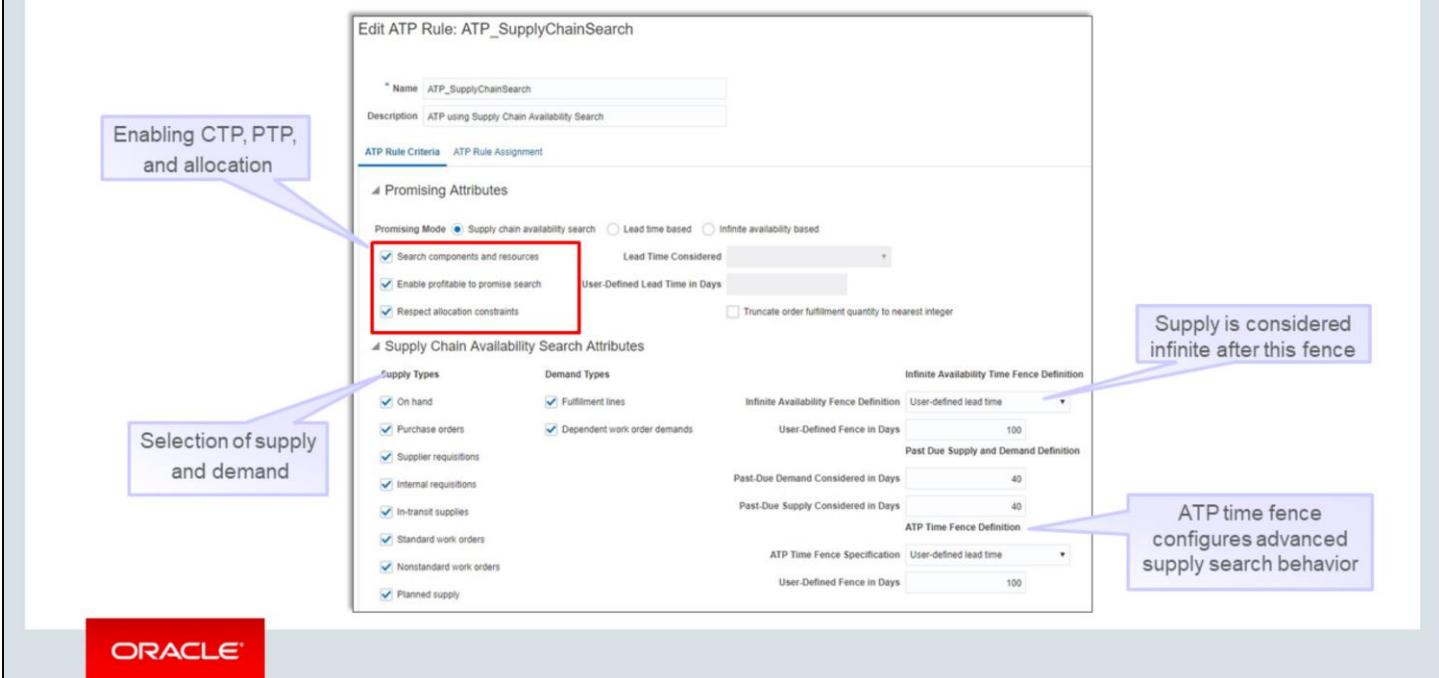
Promising Mode	Details	Usage	Supports
Infinite availability-based	Supply assumed to be infinite	Use for low value, unconstrained items	Calendars
Lead time-based	Supply always available after a lead time	Use for items with reliable lead times	Calendars and lead times
Supply chain availability search	Search for actual supplies	Use for fast moving, critical items where exact supply tracking is important	Calendars, lead times, detailed supply and demand matching, optimal fulfillment



According to the table above, the infinite availability-based, lead time-based, and supply chain availability search promising modes have these characteristics:

- Infinite availability-based
 - Details: Supply assumed to be infinite
 - Usage: Use for low value, unconstrained items
 - Supports: Calendars
- Lead time-based
 - Details: Supply always available after a lead time
 - Usage: Use for items with reliable lead times
 - Supports: Calendars and lead times
- Supply chain availability search
 - Details: Search for actual supplies
 - Usage: Use for fast-moving, critical items where exact supply tracking is important
 - Supports: Calendars, lead times, detailed supply and demand matching, optimal fulfillment

Supply Chain Availability Search Mode



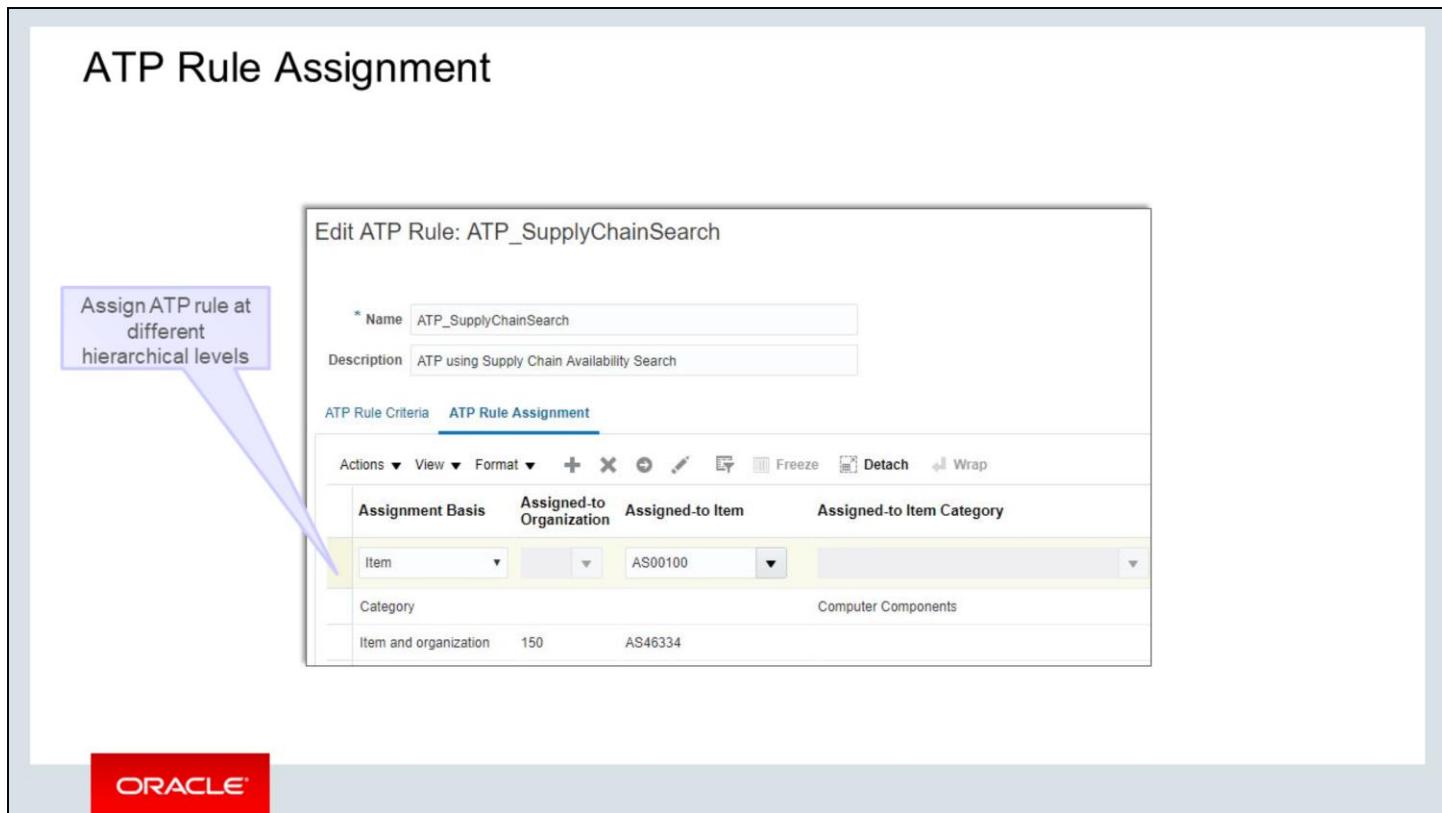
You can use these options for supply chain availability searches:

- Select “Search components and resources” to enable capable-to-promise (CTP). You can also enable a profitable-to-promise search and elect to respect allocation constraints.
- Specify the supply types to search when seeking supply at a specific location.
- Specify the fence beyond which supply is considered infinite.
- Consider past due supply and demand (supply and demand whose due dates are earlier than the current system date) when searching.
- Specify the ATP time fence, which affects the way Global Order Promising searches for supply. For orders with requested dates within the fence, Global Order Promising searches preferentially for ATP supply. Beyond this fence, Global Order Promising searches preferentially for supply through CTP.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Global Order Promising**.
2. On the **Global Order Promising** page, click the **Tasks** panel tab, and then select **Manage ATP Rules**.
3. On the **Manage ATP Rules** page, search for a rule or click **Search**.
4. Click the **Edit** icon.

ATP Rule Assignment



To enable items for order promising, you must associate them with an ATP rule. You must assign all items that are required for promising to at least one ATP rule through a hierarchical level (items could belong to a category that's assigned to an ATP rule, for example).

This screenshot shows that you assign the ATP rule in the Assignment Basis column on the ATP Rule Assignment tab.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Global Order Promising**.
 2. On the **Global Order Promising** page, click the **Tasks** panel tab, and then select **Manage Sourcing Rules**.
 3. On the **Manage Sourcing Rules** page, search for a rule.
 4. Click the **Edit** icon.
 5. Click the **ATP Rule Assignment** tab.

Practices: Overview

- 22-1: Creating Sourcing and ATP Rules and Assigning Them to an Assignment Set
- 22-2: Promising Orders and Viewing Promising Rules That Were Applied

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Summary

In this lesson, you should have learned how to:

- Describe how ATP and sourcing rules impact order promising
- Explain how to set up ATP and sourcing rules



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Promising Orders: Key Functionality

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	40 minutes	Lecture
	15 minutes	Practice
	55 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Promise orders optimally and interactively by using the Check Availability interface
- Explain Order Promising results through key reports and pages
- Explain key order promising functionality (splits, substitution, batch promising, allocation)

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Topics

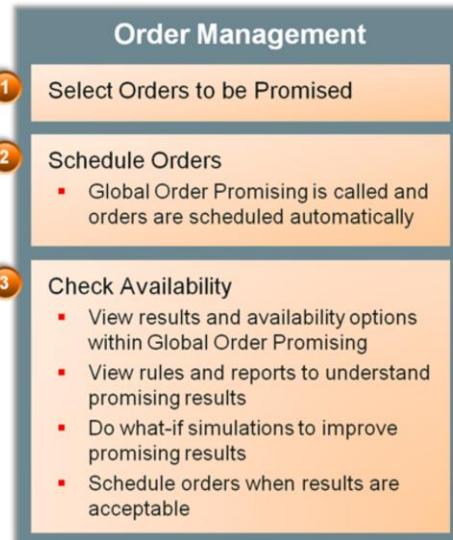
- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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Order Promising Workflow

Typical order promising workflow:



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A typical order promising workflow is shown in the graphic in the slide:

1. Select orders to promise in Oracle Order Management Cloud.
2. Schedule orders from within Order Management. Global Order Promising is called and orders are scheduled automatically.
3. Check availability within Order Management:
 - View results and availability options within Global Order Promising.
 - View rules and reports to understand promising results.
 - Do what-if simulations to improve promising results.
 - Schedule orders when results are acceptable.

After the decomposition and orchestration processes create fulfilment lines in Order Management, Global Order Promising provides the capability to schedule them. The terms “scheduling” and “promising a line” are equivalent and are used interchangeably. Scheduling a line implies that the line’s demand was matched with the currently available supply to determine a date to deliver the line to the customer.

You can schedule lines either directly (without looking at possible supply options), or on the Check Availability page, where you can view potential scheduling results and alternative ways of scheduling the line. Using this information, you can schedule the line by selecting the best possible result.

Check Availability: Key Features

- Check availability for multiple demands together.
- Check availability for already scheduled lines.
- Update input attributes and refresh results to view updated promising results.
- Update relative priorities of lines and view promising results.
- Use analytics to determine whether current promising results are better, especially when promising a batch of lines.
- All actions within Check Availability are in simulation mode. They don't affect Global Order Promising until demands are scheduled using the Schedule button.

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You might want to improve the scheduling results for lines that already were scheduled. In this scenario, you can check the availability of already scheduled lines and understand the possible results if you were to schedule the line now.

The schedule dates on the Check Availability page take into account time zones related to the locations that the supply is shipped from. They also consider the time zones of suppliers and customers, where applicable.

Global Order Promising looks for supply in local time zone of each organization, and also considers scheduled orders in local time zone.

Check Availability

The screenshot shows the Oracle Check Availability interface. At the top, there's a navigation bar with 'Check Availability' and other tabs like 'Schedule All' and 'Done'. Below it, the 'Fulfillment Lines' section displays a table with columns: Order, Customer Name, Requested Item, Requested Item Description, Availability Status, Req'd UOM, and Available Quantity. A callout 'Default promising result' points to the 'Availability Status' column. The 'Availability Options' section below it shows a table with columns: Availability Option, Availability Status, Option Summary, Fulfillment Cost, Days of Delay, Available Item, Available Quantity, Expected Drop Date, Expected Drop Ship Supplier, and Expected Ship By. A callout 'You can select and schedule using an alternate option. This is when the action takes effect.' points to the 'Availability Option' column. The bottom section, 'Analytics', contains three parts: 'Aggregate Batch Scheduling Metrics' (a bar chart showing Total Margin vs Total Fulfillment Cost), 'Fulfillment Line Promising Distribution' (two donut charts for Original and Proposed distributions), and 'Item Availability' (a search interface). A callout 'Item availability analytic provides a quick view into supply at different sources.' points to the 'Item Availability' section. The Oracle logo is in the bottom left corner.

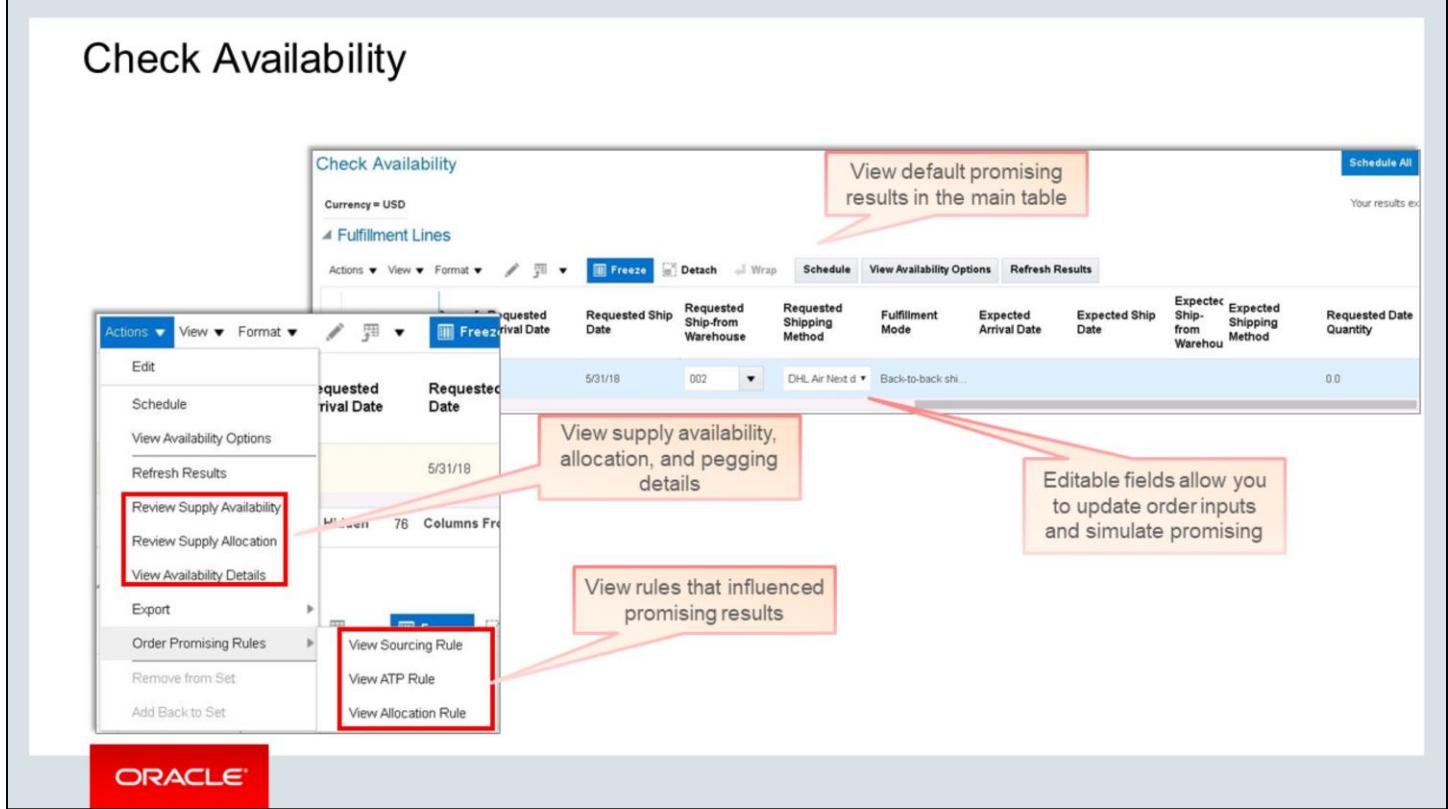
This is a screenshot of the Check Availability page. Callouts show that you can view:

- Default promising results in the Fulfillment Lines region of the Global Order Promising Check Availability page
- Multiple availability options in the Availability Options region
- Analytics to view information such as comparative promising results and supply at different sources.

Navigation:

1. In the **Navigator**, select Order Management, and then click **Order Management**.
2. Click **Tasks** and then select **Manage Fulfillment Lines**. Locate orders that need to be promised.
3. Click the **Check Availability** button.

Check Availability



This is a screenshot of the Check Availability page. Callouts show where you can:

- Simulate promising
- View supply availability, allocation, and pegging details
- View rules that influence promising results

Navigation:

- In the **Navigator**, select Order Management, and then click **Order Management**.
- Click **Tasks** and then select **Manage Fulfillment Lines**. Locate orders that need to be promised.
- Click the **Check Availability** button.

Alternate Availability Options

- Alternate availability options are generated for:
 - Different ship-from sources derived from the sourcing rule
 - Different items that are available
 - Split availability
- Option summary column provides a quick view into the key difference between an option and the default result
- More availability options are generated when you relax input attributes on an order:
 - Requested ship-from warehouse or supplier
 - Requested shipping method
 - Enable splits
 - Enable substitution

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The type of availability options that Order Promising generates depends on the input constraints on the fulfillment line. If you don't specify a ship-from warehouse, and if you select Enable Splits and Enable Substitution Allowed (which is the least constrained case), then Order Promising determines the best possible way of promising this line (look across all warehouses, split by date, substitute, if required), and generates the default option. After this option, Order Promising generates an option that represents the best possible availability from each warehouse by splitting fulfillment and using substitute items.

If you enable more constraints, such as splits are not allowed and substitutions not allowed, then the nature of the alternate options changes. In the most constrained case, when a ship-from warehouse is specified and substitution and splits aren't allowed, then Order Promising generates options only from the specified ship-from warehouse, possibly by considering different shipping methods that deliver the item to the customer site.

Options are sorted based on:

- Fulfillment delay associated with that option
- Cost
- Whether substitutes were used in the fulfillment

Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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Capable-to-Promise

Ability to promise a fulfillment line by:

- Considering the supply for that item at other warehouses or suppliers (Transfer CTP, Buy CTP)
- Considering the supply of the end item's components and consumed resources during manufacturing (Make CTP)
- Using Transfer and Buy CTP if insufficient supply is available for the requested end item at the shipping warehouse
- Enabling Transfer and Buy CTP automatically when the applicable ATP rule mode is "Supply chain availability search"
- Enabling Make CTP by selecting "Consider Components and Resources" in the ATP Rule applicable to Items

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This slide discusses capable-to-promise order promising.

Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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Profitable-to-Promise

Overrides preferred sources for the requested item to promise from the least cost source

- Costs considered when evaluating promises are:
 - Standard cost
 - Resource cost (in case end item is to be manufactured)
 - Component cost

Note: Global Order Promising prioritizes promising an order without delay.



In profitable-to-promise mode, Global Order Promising overrides sourcing preferences to respect the least cost-based sources that it can promise from. Global Order Promising considers the following costs when evaluating the most profitable method of promising an order:

- Standard cost at internal organizations
- Standard cost at a supplier location
- Cost of internal transfers between organizations
- Cost of transit from supplier to internal organizations
- Cost of transit from ship-from location to customer site, by ship method

In the case of Make CTP, Global Order Promising considers the cost that's associated with resource consumption (cost per unit of resource consumed) and the cost of components required, to determine the optimal location to source the promise.

Enable PTP by selecting Profitable-to-Promise on the ATP rule.

Demonstration: 23-1

- Promising Multiple Orders Using Check Availability



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Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- **Fulfillment Line Splits**
- End Item Substitution
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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Fulfillment Line Splits

Order Promising can automatically split a fulfillment line into two or more lines to optimize promising results. Split fulfillment lines can be across:

- Warehouses
- Substitute items
- Dates, on the
 - Requested date
 - Date when the promise can be made

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Enable fulfillment line splits by selecting Yes for Splits Allowable on the fulfillment line.

Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- **End Item Substitution**
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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End Item Substitution

Order Promising considers the availability of an end item substitute in the case of insufficient availability of the end item.

You must define end item substitutes and collect them into the Order Orchestration data repository.

Supported features:

- Consideration of item substitute priority
- Customer-specific substitution
- Generation of availability options based on substitutes
- Enabling or disabling of substitution using the “Allow Substitutes” selection

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Enable “Allow Substitutes” to allow substitute items to be considered.

Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- **Support Advanced Fulfillment Techniques**
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog

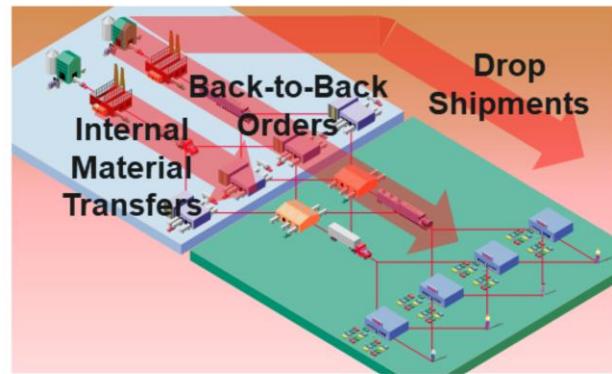


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Support Advanced Fulfillment Techniques

Order promising through:

- Drop shipment
 - Promise orders using drop ship supplier sources.
 - Consider supplier lead times, calendars, and capacity.
 - Respect drop ship PO reservation against an order by default; relax reservation manually to improve order promising.
- Back-to-back orders
 - Promise orders for back-to-back items by using standard Order Promising functionality.
 - Release back-to-back supply recommendation based on Order Promising supply pegging.
 - Respect supply reservation for orders within Order Promising.
- Internal material transfers
 - Support promising of internal material transfers.
 - Enable re-allocation of supply across internal and external orders.



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Global Order Promising supports the following advanced fulfillment techniques:

- Internal material transfers
- Back-to-back orders
- Drop Shipments

Consider taking the Advanced Supply Chain and Fulfillment Techniques course for more information.

Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- Support Advanced Fulfillment Techniques
- **Configure-to-Order Promising**
- Order Promising Work Area to Manage Order Backlog



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CTO Promising

Order promising for configure-to-order

- Promise assemble-to-order (ATO), pick-to-order (PTO), and hybrids (ATO within PTO).
- Consider model, option class, and option item lead times.
- Consider resource capacity and availability for manufactured ATO items.
- Check existing availability of matching configurations, option items, and mandatory components.
- Consider option-specific and option class-specific sourcing exclusions.
- Generate back-to-back supply recommendations for configured items.
- Support drop ship promising of CTO items.

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This slide discusses configure-to-order promising.

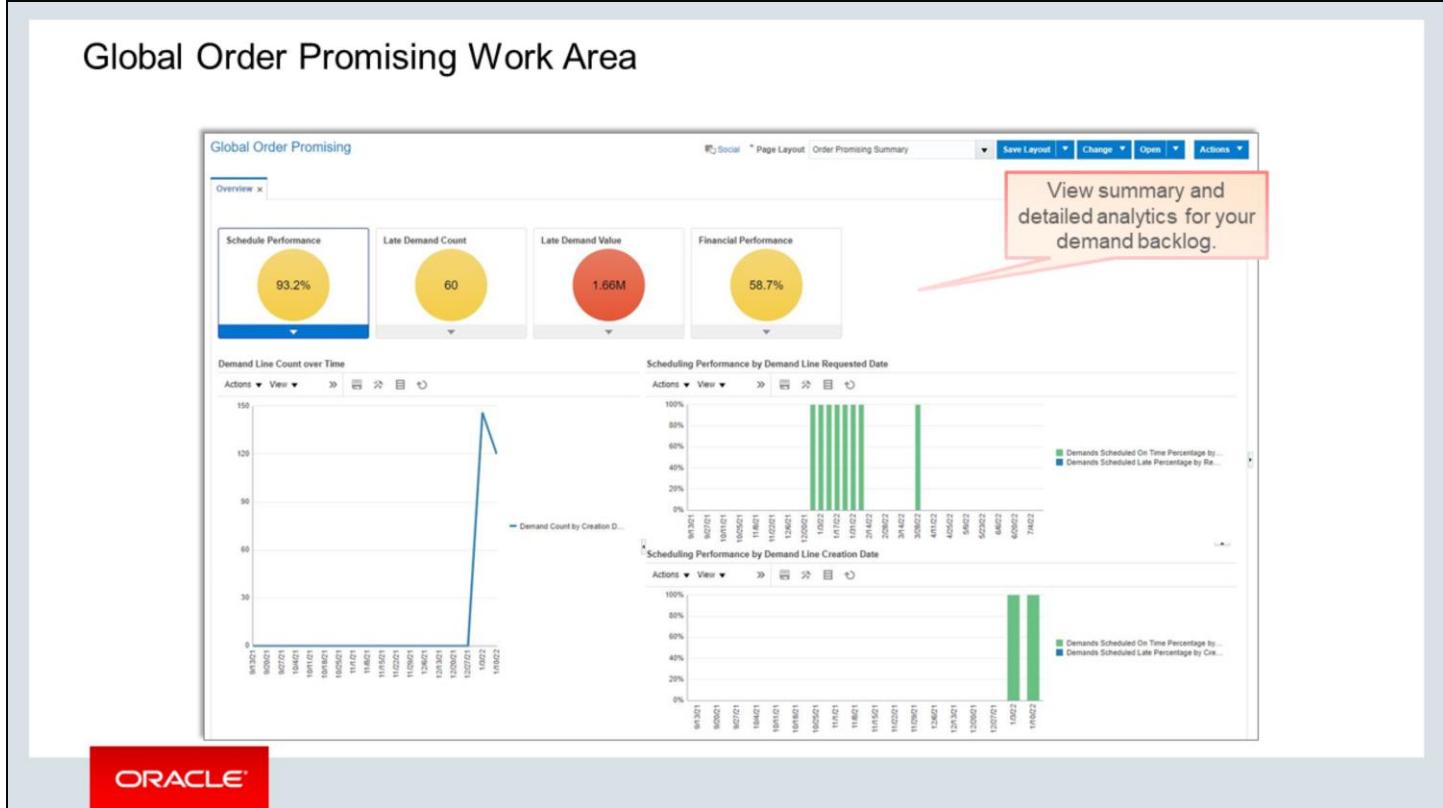
Topics

- Order Promising Workflow and Availability Check
- Capable-to-Promise (CTP)
- Profitable-to-Promise (PTP)
- Fulfillment Line Splits
- End Item Substitution
- Support Advanced Fulfillment Techniques
- Configure-to-Order Promising
- Order Promising Work Area to Manage Order Backlog



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Global Order Promising Work Area



The screenshot in the slide shows the Global Order Promising Overview work area. Here you can view summary and detailed analytics for your demand backlog.

Navigation:

From the **Navigator**, select **Order Management** and then **Oracle Promising**.

Global Order Promising Work Area

Drill down into specific demands. Do what-if simulations to improve results and reschedule orders.

The screenshot shows a grid of order promising demands. The first row, which is expanded, represents a sales order with ID SO-0762. This row has a plus sign icon and contains details for two fulfillment lines. The second fulfillment line, with ID 1, is also expanded, showing its details. The grid includes columns for Order Line Number, Order Number, Order Type, Order, Fulfillment Line, Customer Name, Requested Item, Requested Quantity, UOM, Days of Delay, Requested Arrival Date, Requested Ship Date, and Scheduled Ship-from Organization. The Oracle logo is visible at the bottom left of the interface.

Order Line Number	Order Number	Order Type	Order	Fulfillment Line	Customer Name	Requested Item	Requested Quantity	UOM	Days of Delay	Requested Arrival Date	Requested Ship Date	Scheduled Ship-from Organization
▶ 1	SO-0762	Sales order			Computer Servi...	AS46336	100	Ea	4	9/10/18	GOP:003	
▶ 1	SO-0763	Sales order			Computer Servi...	AS46336	100	Ea	3	9/11/18	GOP:003	
▶ 1.1	2001015037	Fulfillment line	64021	1	Computer Servi...	AS35011	9	Ea	7	10/6/15	001	
▶ 1.1	2000614037	Fulfillment line	19639	1	Computer Servi...	AS35011	5	Ea	0	6/6/14	001	
▶ 1.1	2000315037	Fulfillment line	51273	1	Computer Servi...	AS35011	8	Ea	0	3/6/15	001	
▶ 1.1	4000715037	Fulfillment line	58875	1	Computer Servi...	AS35011	2	Ea	7	7/6/15	100	
▶ 1.1	69263	Fulfillment line	69263	1	Computer Servi...	AS46334	10	Ea	0	3/31/16	002	
▶ 1.1	2000215001	Fulfillment line	50183	1	Computer Servi...	AS46334	49	Ea	4	2/6/15	001	
▶ 1.1	2000715001	Fulfillment line	58794	1	Computer Servi...	AS46334	65	Ea	2	7/6/15	001	
▶ 1.1	2000315001	Fulfillment line	51240	1	Computer Servi...	AS46334	49	Ea	0	3/6/15	001	

The screenshot in the slide shows the drill down into specific demands. Do what-if simulations to improve results and reschedule orders.

Navigation:

1. On the Global Order Promising page, click Open.
2. Search for and then open Manage Order Promising Demands.

Practice: 23-1

- Repromising Multiple Orders Using Check Availability

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Summary

In this lesson, you should have learned how to:

- Promise orders optimally and interactively by using the Check Availability interface
- Explain Order Promising results through key reports and pages
- Explain key order promising functionality (splits, substitution, batch promising, allocation)



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Promising Orders: Administration and Data Collection

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	35 minutes	Lecture
	NA	Practice
	35 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Restart the Global Order Promising Engine and refresh its data
- Perform real-time supply updates

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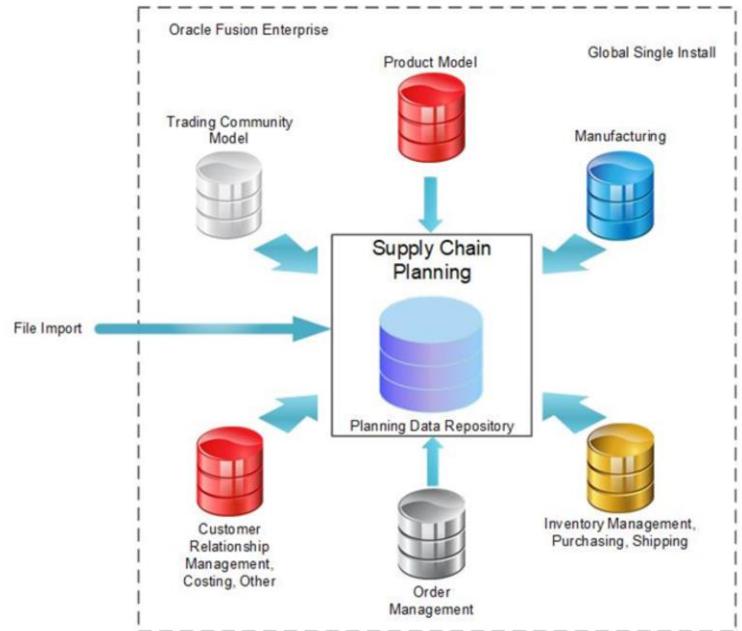
Topics

- Data Collections
 - Global Order Promising Engine Restart
 - Real-Time Supply Updates



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Data Collections for Global Order Promising



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This diagram shows collections for a global single installation containing Oracle Fusion Product Management, Oracle Fusion Trading Community Model, Oracle Fusion Order Management, as well as execution systems implemented in tandem with Supply Chain Planning.

In this installation, collections gathers data from diverse modules. This data is loaded into the planning data repository for use by planning products, as well as for order management purposes.

Collected Data

Collections Source	Business Objects Collected
Oracle Fusion Purchasing, Oracle Fusion Inventory Management, and Costing Cloud	<ul style="list-style-type: none">Purchase orders and requisitionsSuppliers, approved supplier lists, units of measureTransfer orders, shipping methodsSubinventories, on hand, reservations
Oracle Manufacturing Cloud	<ul style="list-style-type: none">Work order supplies, resources, work definitions (routings), resource availability
Oracle Product Master Data Management Cloud	<ul style="list-style-type: none">Items, item structures (bills of material), item substitute relationships, organizations, catalogs
Oracle Fusion Cost Management, CRM, Order Management Cloud, and others	<ul style="list-style-type: none">Item costs, currenciesCalendarsSales orders, Order Management reference objectsCustomersGeographies

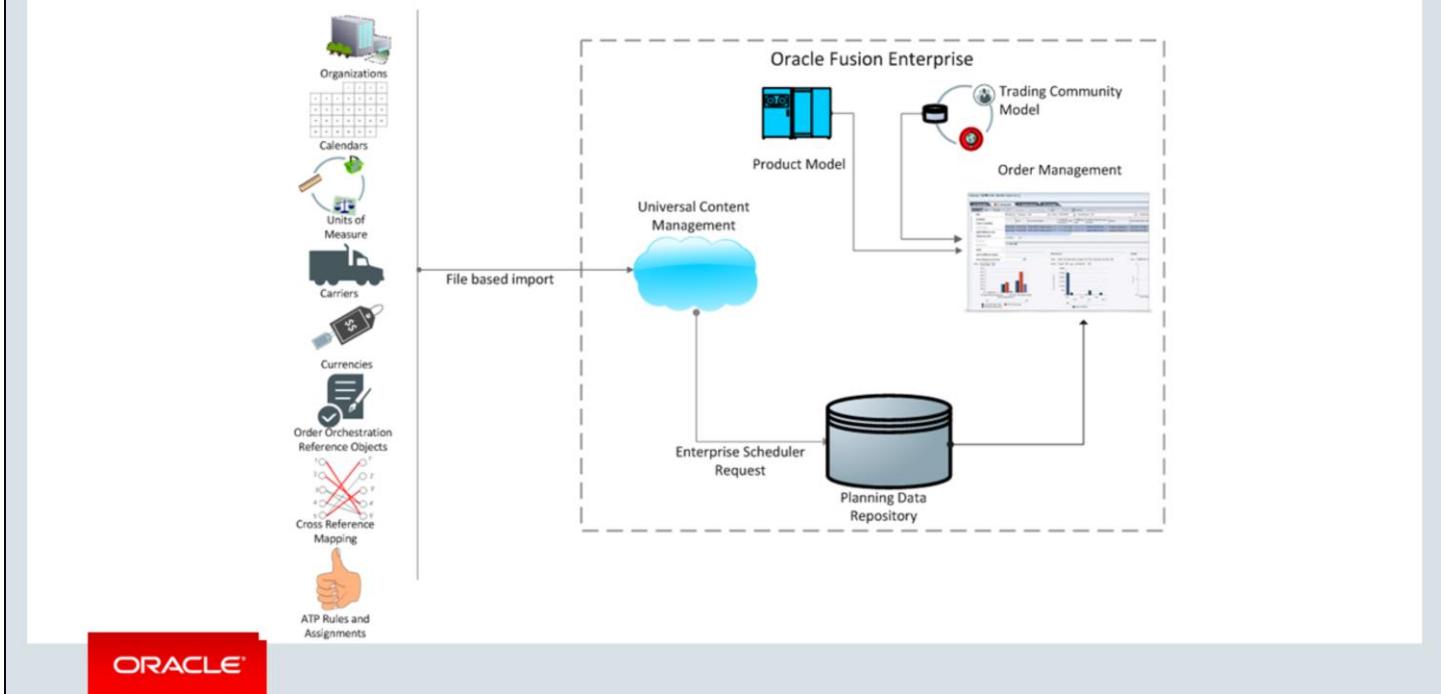
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You can perform enterprise source collections for these business objects:

- From Oracle Fusion Purchasing, Oracle Fusion Inventory Management
 - Purchase orders
 - Requisitions
 - Suppliers
 - Approved supplier lists
 - UOM
 - Transfer orders
 - Shipping methods
 - Subinventories
 - On hand
 - Reservations
- From Manufacturing:
 - Work order supplies
 - Resources
 - Work definitions (routings)
 - Resource availability

- From Product Information Management:
 - Items
 - Item structures (bills of material)
 - Item substitute relationships
 - Organizations
 - Catalogs
- From Oracle Fusion Cost Management, CRM, Order Management, and other Oracle applications:
 - Item costs
 - Currencies
 - Calendars
 - Sales orders
 - Order Management reference objects

Data Collections Using File-Based Import



This diagram shows that external business objects can be collected using file-based data import. The objects are imported into Oracle Universal Content Management and are then stored in the Planning Data Repository.

The business objects that you can collect are listed in the next two slides.

Global Order Promising Data You Can Collect Through File-Based Data Import

You can import these business objects using flat files for a source system:

- Customer-specific item relationships
- Item costs
- Demand classes
- Planning allocation rules and their assignments
- ATP rules and their assignments
- Real-time supply update rules
- Sourcing rules and assignments
- Cross-reference mapping information
- Supplier capacity and approved supplier lists
- Planned order supplies



This is a list of the business objects you can import into a source system for order promising purposes.

Order Management Data You Can Collect Using File-Based Data Import

- Document categories
- Activity type
- FOB points
- Invoicing and accounting rules
- Shipment priority
- Payment method and payment terms
- Receipt method
- Return reason
- Tax classifications
- Tax exemption reasons
- Sales credit types
- Freight terms

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This is a list of the business objects you can import for order management purposes.

Data Collection Configuration Summary

Configuration	Scenario	Setups
Global single installation: Single enterprise source	Implementation of a global single installation configuration that has Product Information Management, Trading Community Model, Order Management, and Supply Chain Planning	<ol style="list-style-type: none">1. Use default settings in the Manage Planning Source Systems page.2. Specify inventory organizations for collecting data.3. Start collections for relevant business objects.
Collect Order Management data from external source systems	Implementation of Order Management with external source systems.	<ol style="list-style-type: none">1. Add external source systems to collect through Manage Planning Source Systems page.2. Import calendar, organization parameter data using files.3. Import relevant data files for performing order management.

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If the implementation footprint corresponds to a global single installation that has Product Information Management, Trading Community Model, Order Management, and Supply Chain Planning, then you can use the default settings in the Manage Planning Source Systems for collection source and destination systems. You can collect data for specific inventory organizations using the Collect Planning Data page.

If you want to carry out order management activities from external source systems, then you must define external source systems on the Manage Planning Source Systems page. Then, upload calendar and organization parameters information using file-based data import, and import the data files for order management.

The information in the table is explained in the notes above.

Data Collection Configuration Summary

Capability	Scenario	Setups
Cross-reference support	Implementation of cross-referencing for select business objects such as currencies, units of measure, Order Management reference objects and so forth	<ol style="list-style-type: none">1. Enable business objects for cross-reference in the Manage Planning Data Collection Processes page.2. Import cross-reference data file for select business objects.3. Review imported data in the Plan Inputs page.4. Collect the cross-referenced business objects through the Collect Planning Data page or using file-based data import.

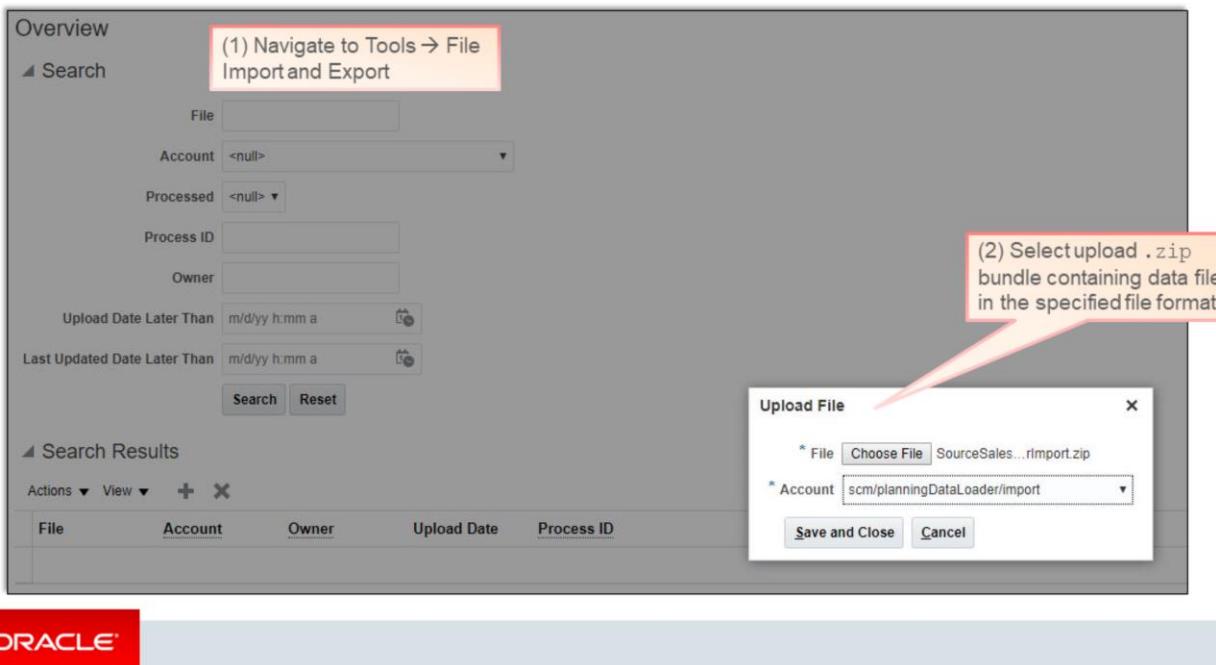
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If you want to support cross-referencing of select business objects such as currencies, units of measure, and Order Management reference objects, then use the Manage Planning Collection Data Processes page to enable the business objects that you want to cross-reference.

You must import the file with cross-reference mapping information before you collect any of the cross-referenced business objects using the Collect Planning Data page or file import. You can view the imported cross-reference data using the Cross-Reference Relationships for Collected Data page.

The information in the table is explained in the notes above.

Data Collection from Files: Uploading the File



Use the Load Planning Data from Files scheduled process to import files for select business objects from internal or external source systems (for Order Management). This screenshot depicts the Upload File dialog box that appears when you click Upload on the File Import and Export page.

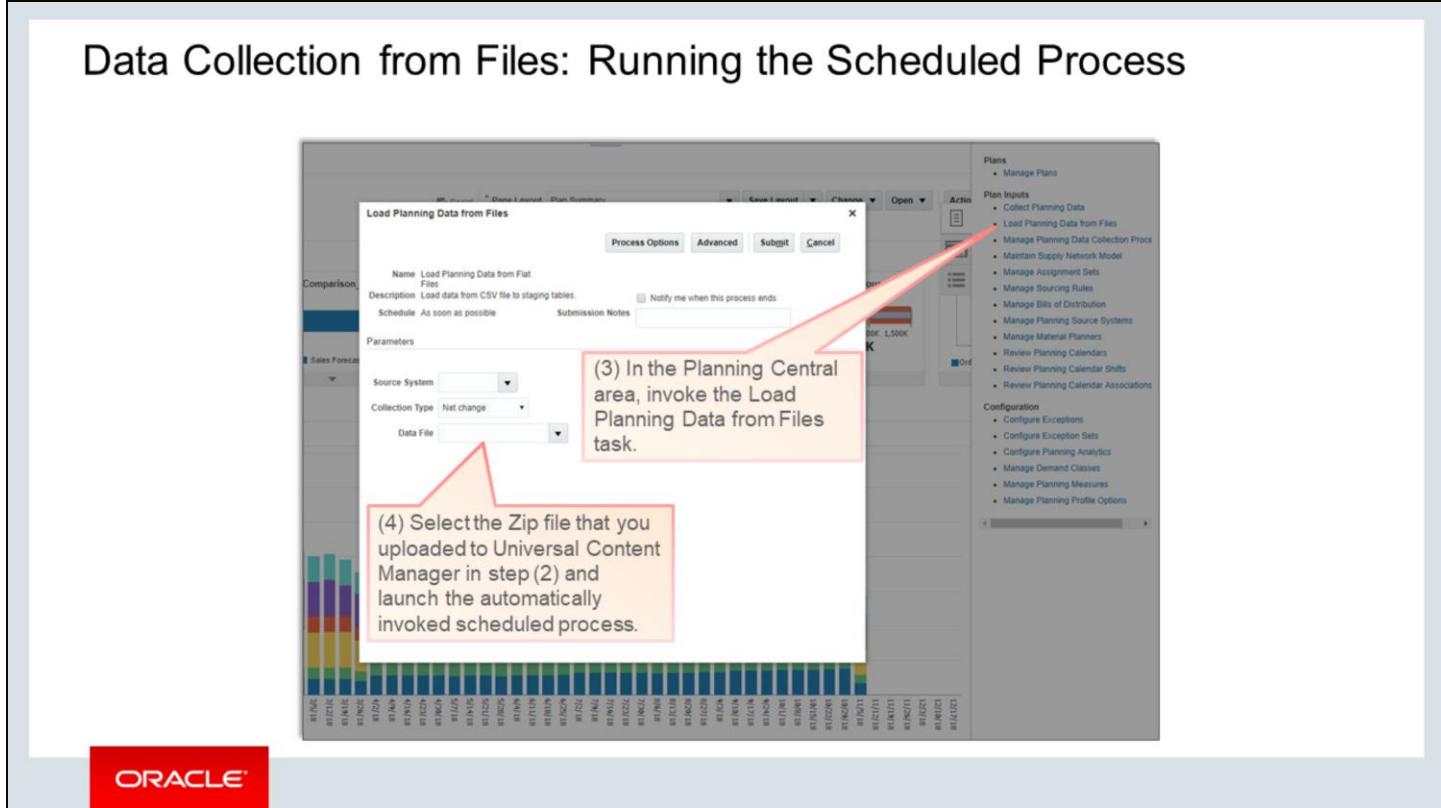
Prepare to import the business objects:

1. Create an Oracle Universal Content Manager account.
2. Enter data in the macro-enabled Microsoft Excel (*.xlsm) files corresponding to the business objects to import, and convert into comma separated (*.csv) files using the macro tool provided in the *.xlsm file. Alternatively, populate the data directly in the *.csv files using scripts or other tools.
3. Create a single ZIP file bundle containing all the files for upload in the current collection cycle. ZIP only the files, not the parent folder that contains the files.

To import business objects using files:

1. In the **Navigator**, select **Tools**, and then click **File Import and Export**.
2. Provide the parameters for uploading your ZIP file. Select the file to import, and then click **Save and Close**. This step uploads the ZIP file to the Universal Content Manager server.

Data Collection from Files: Running the Scheduled Process



To run the scheduled process:

1. In the **Oracle Planning Central** work area, click the **Tasks** panel tab and then select **Load Planning Data from Files**.
 2. In **Data File**, select the Zip file previously loaded to the Universal Content Manager server.
 3. Launch the scheduled process.
 4. Monitor the status of the scheduled process request, and then review the progress from the standard **Scheduled Processes** page.

This screenshot depicts the Load Planning Data from Files task and the dialog box that appears when you select the task.

External Source System Setup

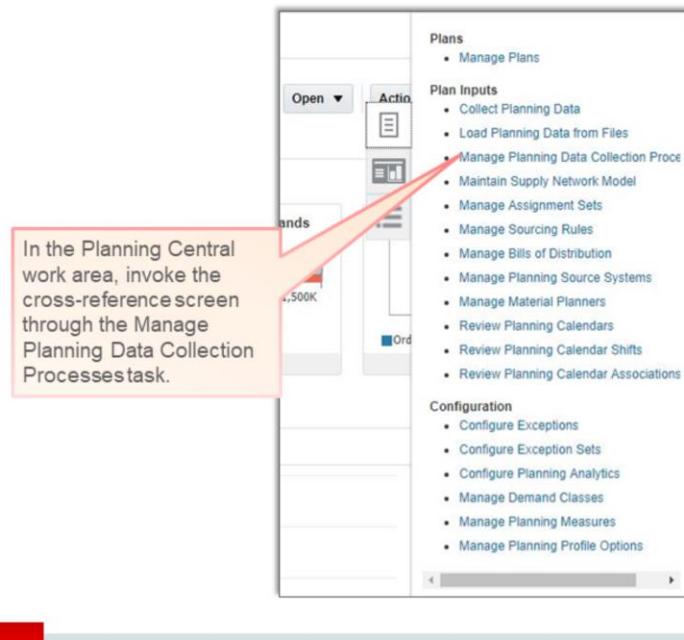


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To import files from external source systems for Order Management:

1. Define item organizations in Product Information Management corresponding to the organizations in the external source system. This step is relevant only if the implementation uses Oracle Fusion Product Hub.
2. On the Manage Planning Source Systems page, define the external source system.
3. Define calendar data using CSV files, and then import them.
4. Upload the organization parameters CSV file, mapping item organizations to external source system and calendars. You can combine this step with step 3.
5. Begin collecting the data elements that are needed for Order Management using file upload of CSV files.

Cross-Reference Data Collections Setup Detail



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Map values from source systems to values from Order Management using cross-referencing. You can use cross-referencing for simple data transformation (for example, map “Kg” in your source system to “Kilogram” in your destination system).

You can cross-reference only the following collection business objects:

- Unit of measure
- Currency and currency conversion type
- Order Management reference objects
- Shipping methods, which includes:
 - Carrier name
 - Shipping service level
 - Shipping mode of transport

To enable cross-referencing in collections, from the Planning Central work area, select the Manage Planning Data Collection Processes task. This screenshot depicts this task in the Plan Inputs list. Click the Tasks panel tab to see this list.

Navigation:

1. From the **Navigator**, select **Supply Chain Planning** and then **Planning Central**.
2. In the workspace, click the **Tasks** panel tab.

Cross-Reference Data Collections Setup Detail

The screenshot shows the 'Manage Planning Data Collection Processes' page. At the top, there are tabs for 'Cross-Reference Preferences' and 'Cross-Reference Entities'. Below these are two tables:

- Cross-Reference Preferences:** This table lists various source systems with their descriptions and versions. The 'Source System' column is highlighted with a red box and a callout 'Select source system'.
- ATG: Collections Cross-Reference Entities:** This table lists business objects like Currencies, Order Orchestration Reference Ob..., and Units of Measure, each with a checkbox under 'Enable Cross-Reference'. These checkboxes are highlighted with a red box and a callout 'Select check boxes to enable cross-referencing'.

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On the Manage Planning Data Collection Processes page, depicted in this screenshot, select the relevant source system in the top half to see the enabled business objects in the lower half of the page.

Select business objects from the list of available ones to enable cross-referencing.

After you enable cross-referencing, collect-cross-reference mapping information:

1. Fill in the *.xlsm file for cross-reference mapping (CrossReferenceDataImportTemplate.xlsm) with source and target values for any or all of the supported business objects, and generate the associated CrossReferenceDataImportTemplate.csv file.
2. Upload the CrossReferenceDataImportTemplate.csv file to the planning data repository. Upload this file before you collect any business object for which cross-referencing is supported. This applies to both internal and external collections.

Navigation:

1. From the **Navigator**, select **Supply Chain Planning** and then **Planning Central**.
2. In the workspace, click the **Tasks** panel tab and then select **Manage Planning Data Collection Processes**.

Viewing the Cross-Reference Collected Data Setup Detail

The screenshot shows a table titled 'Cross-Reference Relationships for Collected Data'. The table has columns: From Source System, Entity Name, Attribute Name, Source Value, Target Value, and Last Updated Date. The data in the table includes various mappings between source systems like ATG, EBIZ, and GPR, and attributes like Payment Terms, Currencies, and Units of Measure. A red callout box with the text 'View cross-reference data that was collected. You can't make updates here.' points to the top right of the table area.

From Source System	Entity Name	Attribute Name	Source Value	Target Value	Last Updated Date
ATG	Payment Terms	Payment Term	44 Net	44 Net	8/19/13 11:17 PM
ATG	Currencies	Currency Code	USD	USD	8/20/13 2:11 AM
ATG	Units of Measure	Unit of Measure	Each	Each	8/19/13 10:34 PM
EBIZ	Units of Measure	Unit of Measure	Each	Each	8/31/12 9:22 AM
EBIZ	Currencies	Currency Code	USD	USD	8/31/12 8:50 AM
EBIZ	Payment Terms	Payment Term	30 Net	30 Net	8/29/12 11:25 AM
EBIZ_02	Units of Measure	Unit of Measure	Each	Each	12/25/12 11:55 PM
EBIZ_02	Currencies	Currency Code	USD	USD	12/25/12 11:54 PM
EBIZ_02	Payment Terms	Payment Term	30 Net	30 Net	12/28/12 1:16 AM
GPR	Document Categories	Document Category Name	MISC	MISC	5/28/10 6:27 AM
GPR	Document Categories	Document Category Name	To Supplier	To Supplier	1/7/14 6:37 AM
GPR	Document Categories	Document Category Name	To Buyer	To Buyer	1/7/14 6:37 AM
GPR	Document Categories	Document Category Name	To Receiver	To Receiver	1/7/14 6:37 AM
GPR	Document Categories	Document Category Name	To Approver	To Approver	1/7/14 6:37 AM

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After collection is complete, view the collected cross-reference mapping information.

On the Cross-Reference Relationships for Collected Data page, depicted in the screenshot, provide search criteria to display relevant cross-reference mapping information.

This page is available for viewing only. You can't make changes to collected data.

Navigation:

1. From the **Navigator**, select **Supply Chain Planning** and then select **Plan Inputs**.
2. On the **Plan Inputs** page, click the **Tasks** panel tab, and then select the **Cross-Reference Relationships for Collected Data** task.

Topics

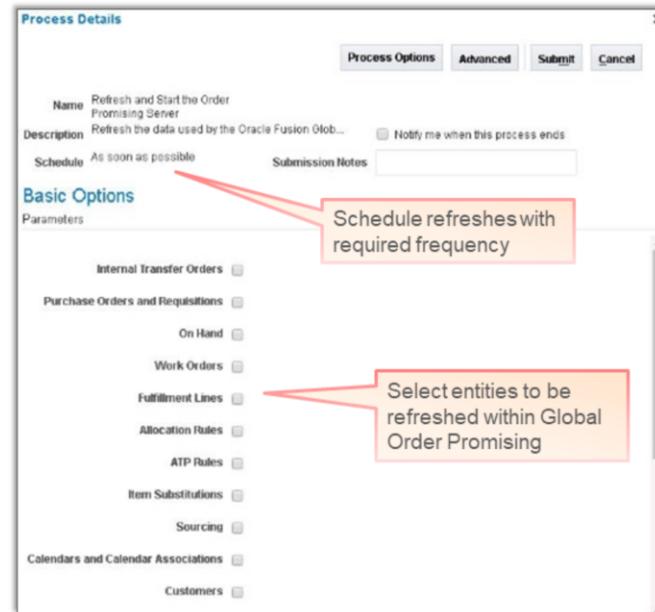
- Data Collections
- Global Order Promising Engine Restart
- Real-Time Supply Updates



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Administration: Restarting the Global Order Promising Engine

- “Refresh and Start the Order Promising Server” scheduled process restarts the Global Order Promising Engine and refreshes its data.
- Global Order Promising continues to promise orders during the refresh.
- Option to select specific entities to refresh.
- Only data that’s collected is refreshed.



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You can refresh the Global Order Promising Engine with the latest supply chain data and restart it automatically through a scheduled process, as shown in this screenshot.

Global Order Promising continues to promise orders during the refresh.

Navigation:

- From the **Navigator**, select **Tools** and then click **Scheduled Processes**.
- On the **Scheduled Processes** page, click the **Schedule New Process** button.
- In the **Schedule New Process** window, click the arrow next to the **Name** field, and select **Search**.
- In the **Search and Select** window, search for and select **Refresh and Start Order Promising Server**.

Topics

- Data Collections
- Global Order Promising Engine Restart
- Real-Time Supply Updates



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Administration: Real-Time Supply Update

- Synchronize supply updates within Cloud ERP into Global Order Promising without restarting the engine.
- Enable items relevant for real-time updates through the Manage Real-Time Supply Update Rules task.
- Run collections frequently for supply data.
- Schedule the Start Real Time Supply Update scheduled process to run frequently.



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The real-time supply update capability reflects changes to supply into Global Order Promising without requiring a Global Order Promising Engine restart. Global Order Promising supports changes to multiple supply types, such as: On hand, purchase orders, transfer orders. Global Order Promising also automatically recalculates the shipment or delivery date when you override it manually. This means that if you override the scheduled shipment date on a sales order, then Global Order Promising processes automatically calculate the expected delivery date.

It's sufficient to simply collect the latest supply and then reflect the latest supply within Global Order Promising using the real-time supply update capability. Changes made to supply never impact the promising of already scheduled demands. Updated supply only impacts the promising for new demands.

The graphic depicts this flow:

1. Supplies are updated within Inventory Management, Manufacturing, and Procurement
2. Collect latest supply
3. Global Order Promising engine is updated with latest supply
4. Updated supply is used for new order promising transactions

Summary

In this lesson, you should have learned how to:

- Restart the Global Order Promising Engine and refresh its data
- Perform real-time supply updates



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25



Shipping Orders: Overview

- Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	30 minutes	Lecture and Demo
	NA	Practice
	30 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Describe the shipping process flow
- Explain the various activities performed when processing a shipment
- Describe how Oracle Fusion Order Management and Oracle Fusion Inventory Management support the shipping process
- Explain why a company might want to use quick shipment

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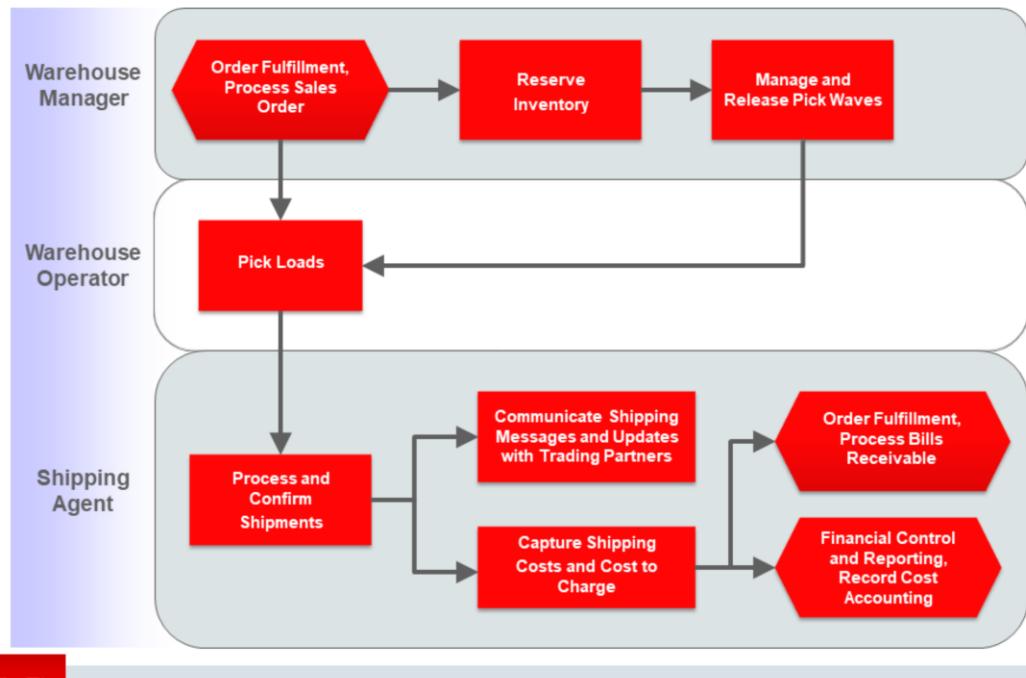
Topics

- Shipping Process Flow
- Pick Release Process Flow
- Ship Confirm Process Flow
- Quick Shipment



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Shipping Process Flow and User Roles



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The shipping process flow is initiated with a sales order that's generated from Order Management. A reservation is then created, designating the material for a specific sales order. A reservation protects inventory by preventing the material from being used by other demand sources. The Warehouse Manager:

- Monitors and releases sales orders for picking in the warehouse
- Generates pick slips for picking material for outbound material movement
- Creates pick waves by using a variety of criteria leading to more efficient warehouse operations

The Warehouse Operator monitors and performs the picking activity. The Pick Loads activity includes picking outbound, replenishment, and requisition pick slip types. The Warehouse Operator can easily search for a pick slip and confirm the pick slip in a single action. The Warehouse Manager can generate and distribute pick slip reports to provide instructions to Warehouse Operators on material movement.

The Shipping Agent can:

- Process and confirm outbound shipments, including packing, creating shipments, and resolving exceptions
- Generate outbound shipping documentation, such as the carrier bill of lading upon ship confirmation
- Communicate shipping messages and updates to trading partners. Shipping messages include the contents or a shipment, shipment status, shipment arrival details, and shipment requests. Communicating shipping messages and updates with trading partners provides the ability to integrate with external systems.
- Manage pending transactions and transactions with processing errors from external systems through a spreadsheet interface using ADFdi technology. The Manage Shipment Transactions Corrections in Spreadsheet task allows you to review and edit the interface transactions and the corresponding errors related to the shipping transactions received from external systems or otherwise through open interfaces.
- Capture all shipping costs that are associated with a shipment and assign them to a shipment, shipment line, or packing unit.

The final process in the flow is to pass shipping information to order fulfillment and cost management for further downstream processing.

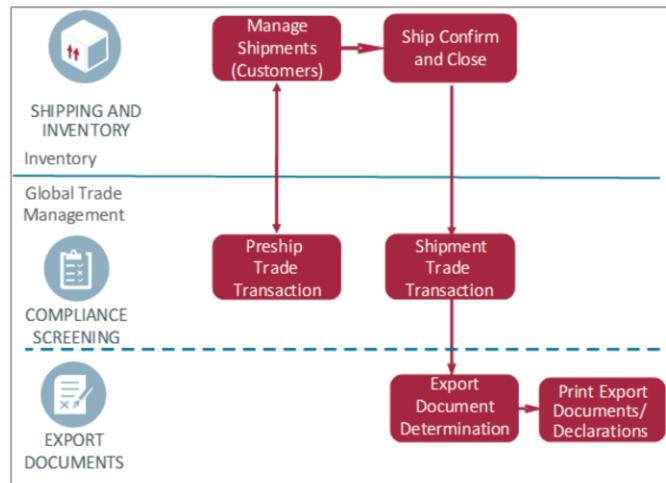
- **Pick Loads:** Monitor picking activity for outbound, replenishment, and requisition pick slips. Generate and distribute related pick slip reports to provide instructions on material movement.
- **Process and Confirm Shipments:** Manage all delivery processing for outbound shipments, including packing, delivery creation, exceptions, confirmation and end-of-day activities. Generate outbound shipping documentation.
- **Capture Shipping Costs:** Capture all shipping costs that are associated with a shipment. Assign costs to a shipment, shipment line, or packing unit.
- **Communication Shipping Messages and Updates with Trading Partners:** Communicate messages to trading partners related to shipment contents, requests for shipment, and status of shipment requests. Efficiently support and automate the outsourcing of your logistics operations.

You can capture electronic signatures on these pages:

- Manage Shipments
- Edit Shipments

Integrated Trade Compliance in Inventory Cloud

- Supports automated and manual requests to screen shipment lines
- Enables users to determine which lines to screen and when
- View screening results in the Shipping UIs
- Send shipments and shipment lines to Oracle Global Trade Management Cloud Service for Export Documents

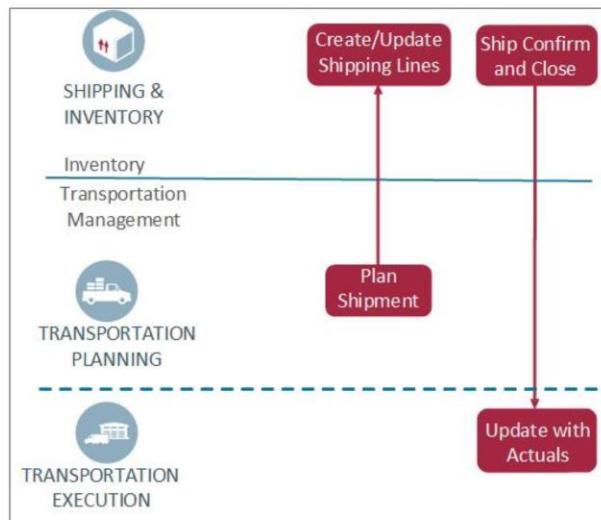


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The graphic depicts the integration between Oracle Inventory Cloud and Global Trade Management. It shows that you can trigger compliance screening before the shipment occurs. You can view the screening results in the Manage Shipments UI. After ship confirm and close of the shipment line, you can initiate compliance screening again. After this screening, Global Trade Management determines and produces the appropriate export documents.

Integrated Transportation in Inventory Cloud

- Receives fulfillment lines from Order Management that are waiting for transportation planning
- Receives transportation shipment planning information from Oracle Transportation Management Cloud Service and updates shipping lines
- Releases planned shipment lines for pick, pack, ship
- Groups one or more shipments into a single transportation shipment
- Enables you to release, pick, and ship using transportation shipment or initial leg destination location
- Ship confirms planned shipment and sends actual shipment data to Trade Management
- Backorders unshipped planned shipment lines



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The graphic depicts the integration between Oracle Inventory Cloud and Transportation Management. The transportation planning functionality plans the shipment and passes the information to the shipping lines in Shipping and Inventory. When a shipping line is ship confirmed and closed in Shipping and Inventory, the information about actual shipments is passed to the transportation execution functionality in Transportation Management.

Integrating with an External Manufacturing System

You can integrate your Oracle Cloud system with an external system, such as a third-party logistics system, warehouse manufacturing system, or contract manufacturer. Take advantage of the following integration capabilities:

- Transmit receipt advices for inbound material
- Accept receipt confirmations for material received
- Transmit shipment requests for fulfilling demand
- Accept shipment confirmations for material shipped
- Accept inventory balance details



Specifically, you can:

- Accept inventory balances coming through a new REST service called `inventoryBalanceTransactions`.
- Import inventory balances in bulk using SAAS spreadsheet.
- Review and resolve any processing exceptions using the new desktop integration spreadsheet.
- Purge these balance messages periodically to free up space.

All these capabilities are automatically available and require no additional setup. They're available to the Warehouse Manager, Receiving and Inspection Manager, and Shipping Manager job roles.

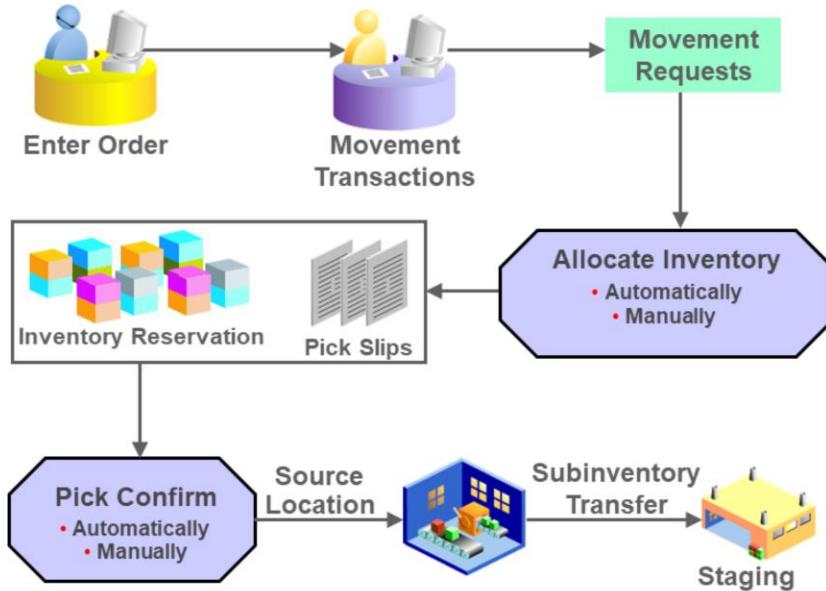
Topics

- Shipping Process Flow
- Pick Release Process Flow
- Ship Confirm Process Flow
- Quick Shipment



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Pick Release Process Flow



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The pick release process begins with a pre-approved movement request that's automatically created in Inventory Management. A movement request represents a request to transfer material from a source (stocking) subinventory to a destination (staging) subinventory. Movement requests are created for sales orders that are awaiting shipping. The destination subinventory is the staging subinventory entered in Order Management or defaulted from the Manage Shipping Parameters user interface. Only one staging subinventory is allowed per pick wave.

Allocate Inventory to Movement Request

If you select the Autoconfirm Pick check box on the Create Pick Wave page, then inventory is allocated automatically after the movement request. Alternatively, you can postpone allocation until later and then manually allocate inventory from the Confirm Pick Slip page. Shipping uses the Release Sequence Rule that you entered on the Pick Wave page or that's defaulted from the Shipping Parameters to determine the sequence to fulfill the movement request. Movement requests use inventory picking rules to determine how to allocate the material. Shipping defaults the sourcing values for subinventory, locator, revision, lot, and serial number onto the movement request. You can update the source defaults manually from the Confirm Pick Slip user interface.

You can skip pick release and pick confirm if you perform a quick shipment.

Allocating inventory is a prerequisite for printing pick slips. Shipping uses the Pick Slip Grouping Rule that was entered on the pick wave or defaulted from the Shipping Parameters while printing pick slips.

Pick Confirm Movement Request

If you select the Autoconfirm Picks check box on the Create Pick Waves page, or clear the Pick Confirmation Required check box on the Inventory Organization Parameters page, then pick confirm is performed automatically during the picking process. If it isn't done automatically during Pick Release, then you can manually pick confirm on the Confirm Pick Slip page. The Pick Confirm transaction executes the subinventory transfer by moving the material from the source location to the destination staging location.

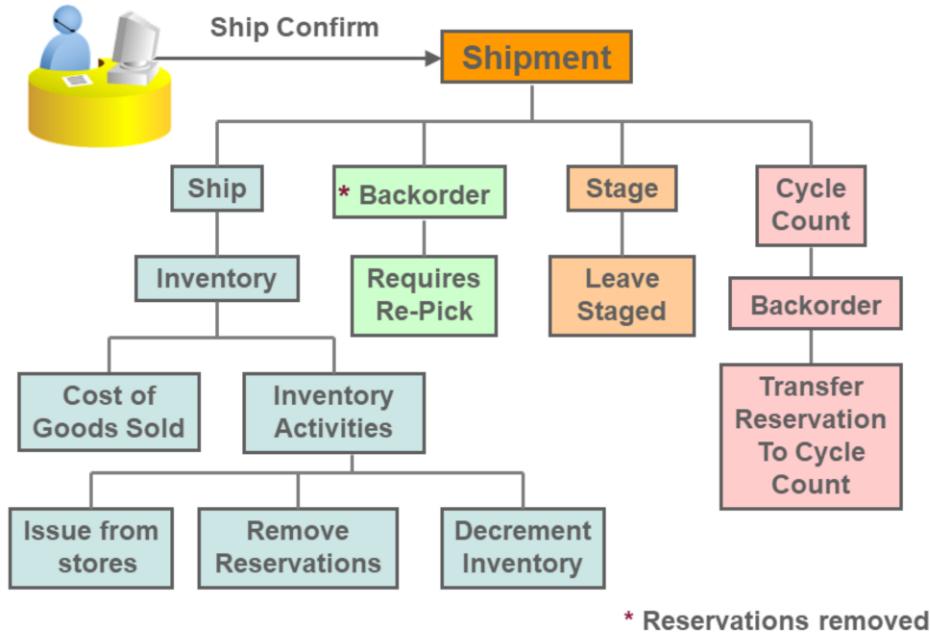
Topics

- Shipping Process Flow
- Pick Release Process Flow
- Ship Confirm Process Flow
- Quick Shipment



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Ship Confirm Process Flow



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A shipment is composed of a set of shipment lines, grouped by certain common shipping attributes, that are scheduled for shipment to a customer's ship-to location on a specific date and time. The ship confirm process involves marking the shipment as confirmed, meaning that all lines in the shipment are loaded for shipping to the customer's ship-to location. The ship confirm process involves selecting the shipment on the Manage Shipments page or the Edit Shipment page and selecting the Ship Confirm option. However, you must select a ship confirm rule or specify ship confirm options, as well as resolve all shipping error exceptions, before you can ship confirm the selected shipment. You must also record lot and serial numbers for items that have that requirement. You can perform a ship confirm on shipments only when the associated shipment lines are pick confirmed. Ship confirm can also result in shipment lines being shipped, backordered, staged, or cycle counted. The ship confirm activity is completed when the quantity picked is recorded as Shipped.

After the lines are ship confirmed, shipment advice is sent back to Order Management with the details of the shipment.

Shipping Quantities

After a shipment is closed, the order line is updated with the shipped quantities and the status of the sales order line is changed to Shipped. The Ship Confirm transaction initiates the Oracle Inventory interface to generate the issue from stores transaction, which decrements Oracle Inventory and removes the inventory reservation. The Order Management interface is initiated to update the sales order line with shipped quantities and freight charges. Oracle Inventory creates a material distribution record, which is ultimately passed to the general ledger. If a partial Ship Confirm is performed, then the remaining quantity can be staged or backordered.

Backordered Quantities

Backordered quantities are left in the staging subinventory. They aren't automatically returned to their source location. The backordered quantity is removed from the shipment and the reservation is removed.

Staged Quantities

Staged quantities are left in the staging subinventory and can be ship confirmed at a later time. The staged quantity is removed from the delivery that's being confirmed and optionally can be linked to a new shipment number.

Cycle Count

Cycle counting is the periodic counting of individual items throughout the course of the year to ensure the accuracy of inventory quantities and values. If you select Submit All for Cycle Count, then the entire reserved quantity for a shipment is transferred to Cycle Count and the shipment line status is changed to Backordered.

Topics

- Shipping Process Flow
- Pick Release Process Flow
- Ship Confirm Process Flow
- Quick Shipment



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Quick Shipment

- When you perform a quick shipment, you:
 - Bypass reservations, picking and pick confirmation steps
 - Go straight to entering a shipment
 - Choose the material to ship, and manually enter the detail
 - Enter serial numbers and lots only at shipment confirmation, regardless of the item serial and lot control settings
- Benefits
 - Choice of material and the serial numbers you ship
 - Streamlined page navigation
 - Not required
 - Setup of picking rules and assignments
 - Setup of pick wave release rules and release sequence rules
 - Reservations to ship the material you select
 - Pick release and pick confirm

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Perform quick shipment in the Inventory Management work area.

When you perform a quick shipment, you choose the material and serial numbers instead of allowing the application to assign them automatically.

Quick Shipment

- Quick shipment may be right for your organization if:
 - Simple, small warehouse processing
 - The same person performing multiple warehouse fulfillment activities
 - No need to identify serial numbers and lots until shipment confirmation
- Enable quick shipment in the Setup and Management work area

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To enable quick shipment:

1. In the **Setup and Maintenance** work area, select the Manufacturing and Supply Chain Materials Management offering.
2. On the **Setup: Manufacturing and Supply Chain Materials Management** page, click **Change Feature Opt In**.
3. On the **Opt In: Manufacturing and Supply Chain Materials Management** page, click **Features for Shipping**.
4. On the **Edit Features: Shipping** page, select **Enable for the Perform a Quick Shipment by Skipping Pick Release and Pick Confirmation** feature.
5. Click **Done**.

Demonstration: 25-1

Viewing the Inventory Management Landing Page



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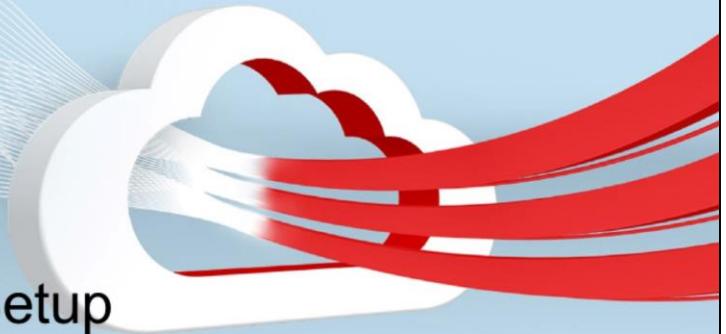
Summary

In this lesson, you should have learned how to:

- Describe the shipping process flow
- Explain the various activities performed when processing a shipment
- Describe how Order Management and Inventory Management support the shipping process
- Explain why a company might want to use quick shipment



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Shipping Orders: Basic Setup

- Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
-----------	--------	-------

25 minutes	Lecture and Demo
15 minutes	Practice
40 minutes	Total

Learning Objectives



- Explain and describe shipping parameters
- Define a carrier
- Explain shipping cost types
- List the shipping documents that are supported
- Describe shipping exceptions
- Identify shipping lookups
- Verify user roles

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Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- Shipping Documents and Sequences
- Exceptions
- Lookups
- User Roles



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Shipping Parameters

Used to define organization-level default values that control behavior in picking and shipping processes.

Manage Shipping Parameters

General

Shipment Creation Criteria: Across orders
Appending Unit: Do not append
Packing Unit Capacity Method: Weight
Ship Confirm Rule: Auto Ship
Weight UOM Class: Weight
Volume UOM Class: Volume
Currency: USD
Inventory Interface Batch Size
Shipment Set Behavior: Warning
Packing Slip Document Sequence Category
Bill of Lading Document Sequence Category
Commercial Invoice Document Sequence Category
 Automatically pack

Pick Release

* Release Sequence Rule: All Standard Orders
* Pick Slip Grouping Rule: Customer, Ship To, Carrier
Print Pick Slip: At the end
Number of Pick Slip Lines
* Staging Subinventory: Staging
Staging Locator

Advanced Options

Inventory Organization: [dropdown]
Change Organization: [button] New: [button] Save and Close: [button] Cancel: [button]

Consolidate backordered lines
 Enforce packing
 Enforce shipping method
 Allow future ship date
 Delay sending inventory updates to integrated applications
 Enable carrier handling
 Delay online processing of inventory updates
 Publish transactional events
 Enable quick ship

Required on Packing Slip: All
 Packing slip status
 Shipment description
 Transshipment reason

Subinventory for Quick Ship: Stores
Locator for Quick Ship: [dropdown]

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26 - 4

The Manage Shipping Parameters page is where you (Warehouse Manager) select options for defining default shipping parameters for the organization.

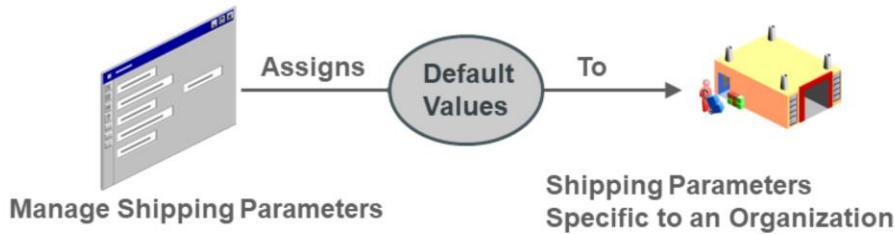
Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Manufacturing and Supply Chain Materials Management offering.
3. Search for the **Manage Shipping Parameters** task. Select the task in the **Shipping** functional area.

This screenshot depicts the Manage Shipping Parameters page with default values. It shows most, but not all, of the page.

Shipping Parameters

- Used to define organization-level default values that control behavior in picking and shipping processes
- Defined on the Manage Shipping Parameters page in the Setup and Maintenance work area



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26 - 5

Assign default values to shipping parameters that are specific to an inventory organization. You can define the default values for basic shipping information, such as:

- Shipment creation criteria
- Pick release behavior
- Shipment grouping settings

Parameters appear in the following regions of the Manage Shipping Parameters page:

- General
- Pick Release
- Optional Shipment Grouping Attributes

Shipping Parameters: General

Determine shipping behavior, such as:

- Shipment creation criteria
- Shipment merging
- Packing
- Ship confirm
- Shipment sets
- Weight, volume, and currency
- Interface with Inventory and other applications



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26 - 6

Shipping Parameters: General Region

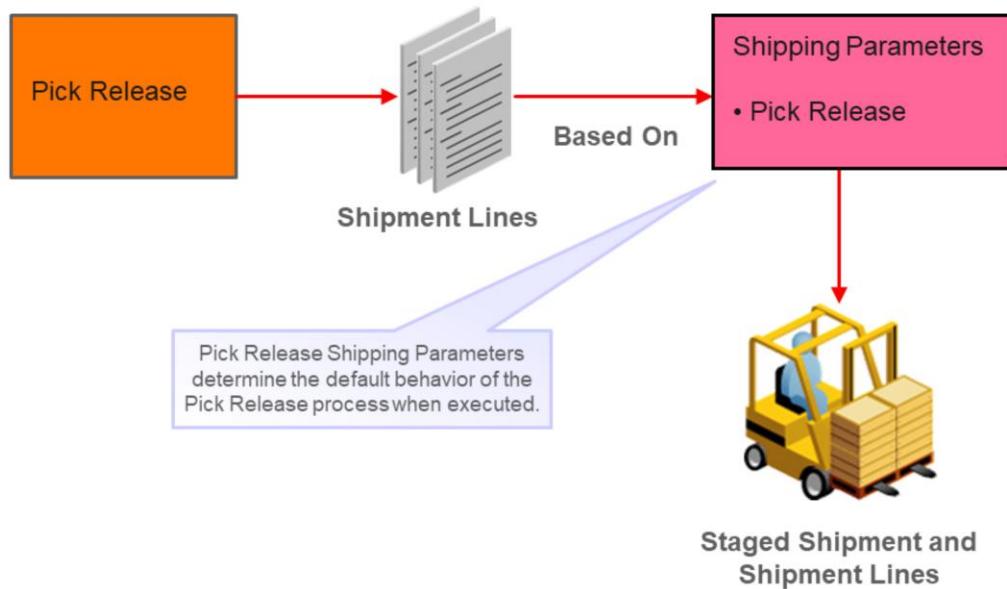
- Shipment Creation Criteria: Determine whether to autocreate shipments within the same sales orders or across orders.
- Appending Limit: Indicate the point at which you want to stop the application from adding lines to a shipment (the point that ends the ability to merge shipments).
- Packing Unit Capacity Method: Select the default unit of measure to use for the Packing Unit Capacity Method for a container. This selection determines whether containers have met their minimum fill percentage requirements
- Ship Confirm Rule: Select a rule that your organization will use as a default for automatic ship confirm.

Note: If you want to define a default ship confirm rule, then you must select Ship All as your option when you define your ship confirm rules in the Ship Confirm window.

- Weight and Volume UOM Class: Select the default weight UOM class.
- Currency: Select the default currency used for the carrier services rating.
- Inventory Interface Batch Size: Specify the number of lines to interface to Oracle Order Management Cloud for each call. Specify the batch size that's inserted in the Oracle Inventory Cloud tables.
- Shipment Set Behavior: Indicate how you want the application to react when a user attempts to break a shipment set.
- Automatically pack: Determine whether to allow shipment line items to be systematically packed into LPNs based on container-item relationships.
- Consolidate backordered: Indicate whether you want to consolidate a line that was split and subsequently backordered. If you select this parameter, then the line is consolidated automatically with other backordered lines that it was part of originally.

- Enforce packing: Indicate whether you want to display a warning when confirming a shipment with unpacked shipment lines.
- Enforce shipping method: Indicate whether you want to require a user to enter and record a shipping method (carrier) for each shipment.
- Allow future ship date: Allow a user to enter a future date as the Actual Departure Date while ship confirming the shipment.
- Defer sending inventory updates to integrated applications: Defer shipping interfaces from initiating updates to the Order Management and Inventory interface tables. If you defer sending updates, then you must manually run the interface to update the interface tables.
- Enable carrier manifesting: When this parameter is enabled, (along with additional setup on the carrier), the shipping organization can send an outbound message to a carrier manifesting system, including data pertinent to the shipment, that allows the manifesting system to calculate the total weight, calculate the total freight costs, and produce the required shipping labels and paperwork for the shipment.
- Defer online processing of inventory updates: If you select this parameter, then you must run the inventory interface scheduled process separately to update and decrement inventory with the shipped quantities. If you don't select this parameter, then the inventory interface occurs automatically after ship confirmation.

Shipping Parameters: Pick Release



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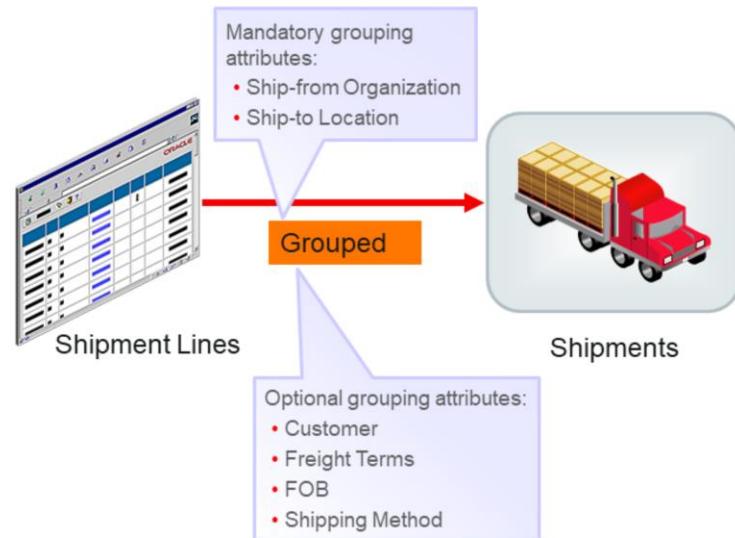
This diagram shows that the Pick Release Shipping Parameters determine the default behavior of the pick release process when executed.

- Release sequence rule: Determine the order in which shipment lines are allocated to Inventory. It appears as the default release sequence rule on the Pick Release page.
Note: It is recommended that you select the most frequently used release sequence rule. Although it becomes the default, you can change it any time you launch pick release.
- Pick slip grouping rule: Determine how the released shipment lines are grouped on pick slips and how the pick slip number is generated by pick release.
- Print pick slip: Determine when to print the pick slips.
- Number of picking lines: Enter the number of pick slip lines to print on each pick slip.
- Staging subinventory: Select the staging subinventory where you want to transfer orders.
- Staging locator: Select a locator in the staging subinventory where you want to transfer orders.
- Number of pick release child processes: Enter the number of child pick release concurrent programs that you want to run in parallel.
- Pick release batch size: This parameter enables you to set the number of lines released in a pick release batch. The minimum batch size is 50, and the maximum batch size is 1000. If you enter a number less than 50, then Shipping treats it as 50. If you enter a number greater than 1000, then Shipping treats it as 1000. Any number in between is treated as actual.
- Create shipments: Indicate whether to create shipments and assign lines to them automatically based on the shipment grouping attributes.
- Enforce shipment set: Indicate whether to enforce that all lines in a shipment set or ship model are released together.

Express pick: Determine whether to skip movement request line creation, allocations, and the pick confirm process. All will be skipped under these conditions:

- Prior Reservations Only is selected in the Release Sales Orders window before the pick release request is submitted.
- Auto Pick Confirm is set to Yes in the Release Sales Orders window before submitting pick release request.
- If the preceding conditions are met, then the lines aren't staged if any of the following applies:
 - The organization to which the line belongs is a logistics services organization.
 - The sales order line doesn't have detailed reservation.
 - The line isn't part of a ship set but is part of a model or kit (which has Ship Model Complete set to Yes) and the shipping parameter Enforce Ship Sets and Ship Models is set to Yes.
 - Apply reservations at the locator level for locator-controlled subinventories, and at the subinventory level for subinventories that aren't locator-controlled. No pick slips are generated for lines processed as part of express pick. The subinventory where reservation was created (before pick release) is used for storage of material and staging. The staging subinventory and locator entered on the Release Sales Order window is always ignored.

Shipping Parameters: Shipment Grouping



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The shipment grouping attributes determine how shipment lines are grouped into shipments when shipments are created automatically. The mandatory default attributes are ship-from location and ship-to location. In addition, you can select these optional grouping parameters:

- Shipping method
- FOB
- Freight terms
- Customer

Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- Shipping Documents and Sequences
- Exceptions
- Lookups
- User Roles

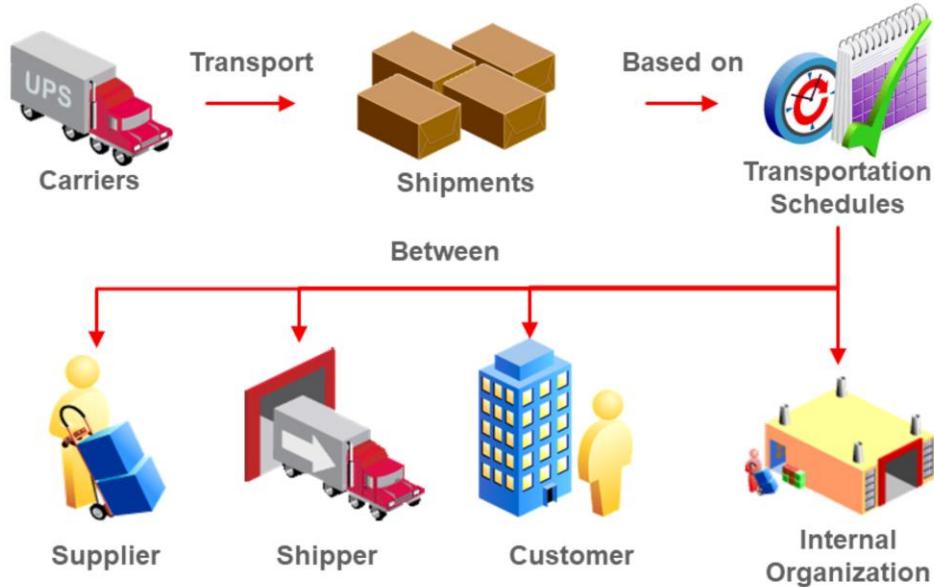


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Carriers



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A carrier is a commercial company that transports shipments to and from customers, suppliers, and internal organizations. A carrier can consist of different service levels and modes of transportation. If the Enforce Ship Methods Shipping parameter is enabled, then you must assign a carrier to a shipment to ship confirm it.

A carrier is stored as a party in Oracle Fusion Trading Community Model with TRANSPORTATION_PROVIDER as the assigned party usage. Some attributes of the carrier, such as the Active flag, Manifesting Enabled flag, and any flexfields are stored in WSH schema for the carrier entity.

The Active check box indicates whether the carrier is active. It's selected by default.

When a carrier is created, a party usage assignment is also created for this carrier in the Trading Community Model schema. If the carrier is active, then the party usage assignment record has a defined future end date. If the carrier isn't active, then the party usage assignment record has a defined past end date.

Shipping Method

Ship method is the concatenation of freight carrier, service level (such as next-day air), and mode (such as LTL). You must assign a shipping method to an organization so that the organization can use it.

Transportation Schedules

Transportation schedules define valid shipping days and hours for a supplier, shipper, customer, and internal organization, as indicated in the diagram. You aren't required to use these calendars.

The shipping and receiving calendars are used to designate when your customers, customer sites, suppliers, supplier sites, and internal organizations can ship and receive.

The transportation schedules don't affect scheduling performed by Oracle Advanced Planning and Scheduling.

Topics

- Shipping Parameters
- Carriers
- **Shipping Cost Types**
- Shipping Documents and Sequences
- Exceptions
- Lookups
- User Roles

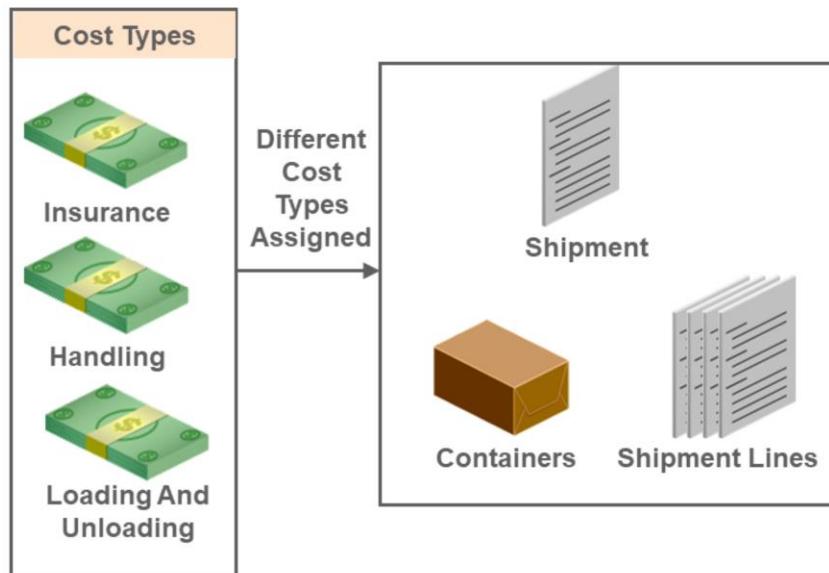


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Shipping Cost Types



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You can define shipping cost types, such as insurance, handling, and loading and unloading. Shipping cost types can be attached to shipments. You can attach multiple shipping cost types to a shipment. You can group costs based on the shipping cost types.

Prerequisites for defining freight costs:

- Define values for Freight Cost Type lookups.
- Define pricing modifier and optionally a pricing formula to pass freight costs to Order Management and Oracle Fusion Receivables.

Define the freight costs in the Freight Cost Types window. You can define the freight cost name, type, currency, amount, and effective period.

The diagram in the slide shows a variety of shipping cost types, which you can assign to shipments, shipment lines, and containers.

Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- **Shipping Documents and Sequences**
- Exceptions
- Lookups
- User Roles



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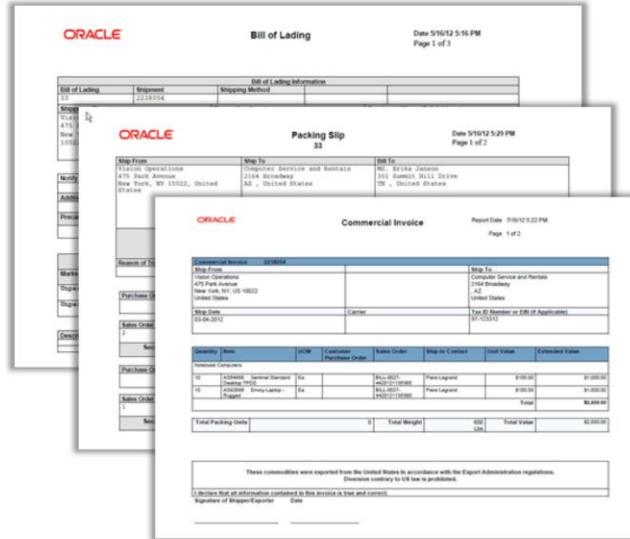
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Shipping Documents

The following shipping documents are supported:

- Bill of lading
- Packing slip
- Mailing label
- Commercial invoice



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This slide contains screenshots of a commercial invoice, packing slip, and bill of lading.

For additional information, see “Manage and Distribute Shipping Documents” (Update 17D)
https://cloud.oracle.com/en_US/saas/readiness?offering=inventory-management&version=r13

Shipping Document Job Sets

Shipping Document Job Set: Grouping of standard or user-defined shipping reports generated at the time of pick release or shipment confirmation

The screenshot shows a table with the following data:

Name	Display Name	Description	Path	Execution Mode
*ODMTrainProc...	ODM processing job	ODM processing job	/oracle/apps/ess/spe/batchprediction/	Parallel
*ODMTrainJobSet	ODM training job set	ODM training job set	/oracle/apps/ess/spe/batchprediction/	Serial
*LeadGenPrePr...	Generate Predictor Leads...	Builds the Oracle Business Rules dictionary and refreshes the product cache before starting the lead generation proc...	/oracle/apps/ess/spe/batchprediction/	Parallel
*LeadGenFram...	Generate Predictor Leads...	Generates predictor leads for all recommended products to customers.	/oracle/apps/ess/spe/batchprediction/	Serial
*LeadGenFram...	Generate Predictor Leads...	Generates predictor leads for all recommended products to customers.	/oracle/apps/ess/spe/batchprediction/	Serial

What is a job set?

Collection of several jobs in a single process set that you can submit instead of running individual jobs separately. You can create your own shipping job sets and invoke them based on rules at ship confirmation.

Navigation:

1. From the **Navigator**, select **Others** and then **Setup and Maintenance**.
2. On the **Setup** page, select the Order Management offering.
3. In the **Search Tasks** field, enter: Manage Enterprise Scheduler. Select **“Manage Enterprise Scheduler Job Definitions and Job Sets for Financial, Supply Chain Management, and Related Applications.”**

Shipping Document Job Sets

- Use the following setup tasks as indicated:

TASK	PURPOSE
Manage Shipping Document Job Set Rules	Configure business rules
Manage Shipping Document Output Preferences	Configure document output preferences



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A shipping document job set could include required shipping paperwork, such as the bill of lading, packing slip, and commercial invoice. You might want to define a shipping document job set to print a specific set of required documents when a shipment is destined for a specific country.

To enable the Manage and Distribute Shipping Documents feature:

1. From the **Navigator**, select **Others** and then **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Manufacturing and Supply Chain Materials Management offering.
3. On the **Setup: Manufacturing and Supply Chain Materials Management** page, click **Change Feature Opt In**.
4. On the **Opt In: Manufacturing and Supply Chain Materials Management** page, click **Features for Shipping**.
5. On the **Edit Features: Shipping** page, select **Enable for the Manage and Distribute Shipping Documents** feature.
6. Click **Done**.

To define shipping document job sets:

1. From the **Navigator**, select **Others** and then **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Manufacturing and Supply Chain Materials Management offering.
3. Select the **Manufacturing Master Data** functional area.
4. Select the **Manage Custom Enterprise Scheduler Jobs for Financial and Supply Chain Management and Related Applications** task.
5. Click the **Manage Job Sets** tab.

Configure business rules to run a shipping document job set using the Manage Shipping Document Job Set Rules task. Configure document output preferences to print, email, or fax a shipping document job set using task Manage Shipping Document Output Preferences. You can communicate reports to external parties using Integration Cloud Service for shipping documents. You can use a service to get a particular report from a job set used for a shipment.

Managing Shipping Document Job Set Rules

- Set up job set rules to trigger the creation of particular document under specified circumstances.
- Example: If the Customer Ship-to attribute equals Italy, then print an Italian packing slip, a commercial invoice, and a bill of lading.
- Attributes available for rules:
 - Ship-from Organization
 - Ship-to Organization
 - Customer
 - Customer Ship-to
 - Supplier
 - Supplier Order Type
 - Customer Country
 - Carrier
 - Shipping Method



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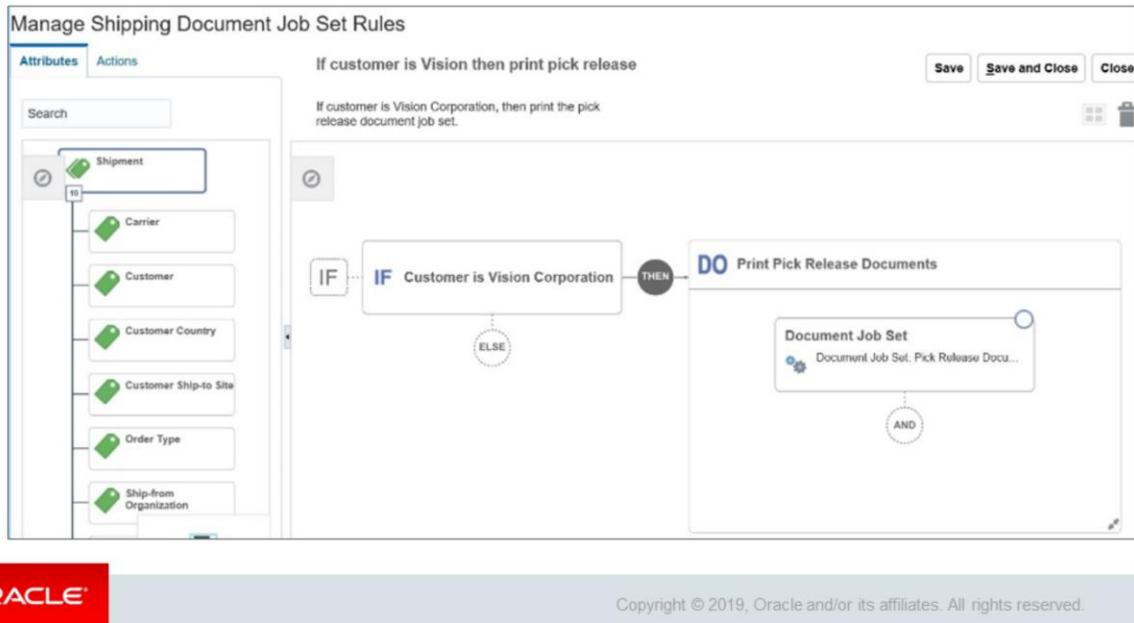
26 - 19

Use shipping document job set rules to trigger the creation of particular shipping documents under a specified set of circumstances.

Attributes available for rules:

- Ship-from Organization
- Ship-to Organization
- Customer
- Customer Ship-to
- Supplier
- Supplier Order Type
- Customer Country
- Carrier
- Shipping Method

Managing Shipping Document Job Set Rules



Create and edit shipping document job set rules in the Setup and Maintenance work area. You create the rules using the Visual Information Builder, which you use for other rules we discussed earlier in this course. This screenshot shows a rule on the Manage Shipping Document Job Set Rules page.

For details, see the Manage and Distribute Shipping Documents transfer of information video:

http://download.oracle.com/ocomdocs/global/fusion_r13/scm/Manage_and_Distribute_Shipping_Documents/index.html

Navigation:

1. From the **Navigator**, select **Others** and then **Setup and Maintenance**.
2. On the **Setup** page, select the Manufacturing and Supply Chain Materials Management offering.
3. In **Search Tasks**, enter: Manage Shipping Document Job Set Rules.

Managing Shipping Document Output Preferences

- Set preferences for shipping documents
 - Delivery method, such as print, email, and fax
- Set preferences based on user, job role, inventory organization, or subinventory.
- Define at the job set level or the job level. Preferences include layout and format, which are defaulted from the Oracle Business Intelligence Publisher (BIP) server level settings. You can also set output preferences at the job level.



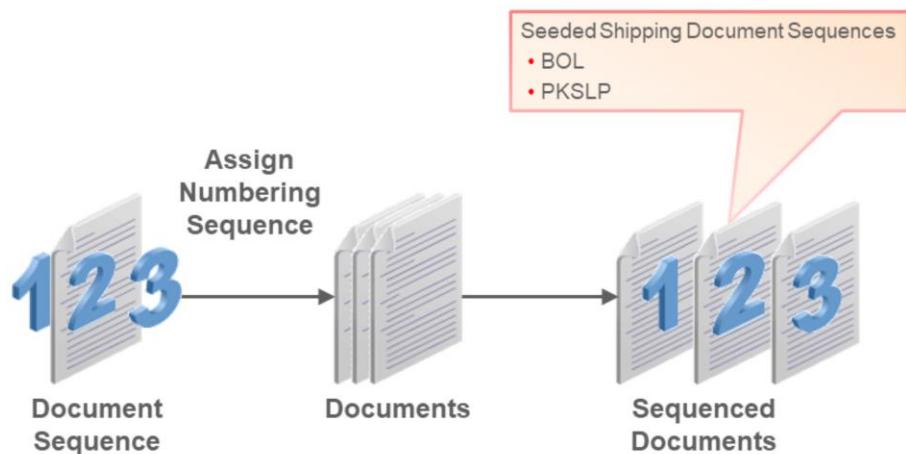
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When you ship confirm a shipment, a shipping document job set is triggered. If you defined the shipping document job set preferences, then the shipping documents in the job set are printed, emailed, or faxed according to the preferences of the user, organization, or subinventory.

Shipping Document Sequences



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Each business document or business event is uniquely identified by a document sequence number that you assign to it. However, you must enable the document sequencing feature on the business document or event to allow the assignment. For example, if document sequencing is enabled, then you can assign a document sequence number to an invoice that's generated in response to a purchase order.

You can use document sequences to track proof of successfully executed transactions, as well as failed transactions. Additionally, a document sequence helps in generating an audit trail, which can be used to identify how a particular transaction passed through various applications.

You can manage document sequencing as follows:

- Automatic sequencing: Assigns a unique number to each document as it's generated, and this unique number is stored in the database. The numbering is sequential by date and time of creation. If you define a sequence to automatically number documents, then you can provide an initial value to begin the sequence. In the absence of a user-provided value, the default value 1 is used.
- Manual sequencing: Requires you to assign a unique number to each document before it's generated. The numerical ordering and completeness of a transaction isn't enforced. You can skip or omit numbers when entering the sequence value. However, each time a number is assigned, the application validates its uniqueness.
- Gapless sequencing: Automatically generates a unique number for each successfully generated document. As a result, the sequence is maintained for all the documents that are generated, and no sequence numbers are lost due to incomplete or failed document generation. Additionally, you can control the gapless document sequencing by enforcing the Transaction Date Validation option. When enabled, this option checks for the transaction date of a particular document and assigns the sequence number accordingly, to maintain the chronological order in which the documents are created and assigned sequence numbers. The sequence numbers and the transaction dates are chronologically correlated to prevent any mismatch of a new document sequence being assigned to an older document or vice-versa.

Shipping Document Sequences

Use the Document Sequences page to define the document sequence. You can specify unique document sequencing for bill of lading (BOL) and packing slips (PKSLP) in Oracle Shipping.

You can define the following on the Manage Shipping Document Sequence page:

- Application: The application to which the document sequence can be applied
- Module: Same as the application
- Type: You can select the following options:
 - Automatic: This option automatically assigns a number to the document based on setup.
 - Manual
 - Gapless
- Determinant Type: You can associate the document sequence with the following determinants—Business Unit, Ledger, Legal Entity, or Tax Registration.
- Start Date: The start date from which the document sequence is valid
- End Date: The end date till which the document sequence is valid
- Initial Value: Initial value of the document sequence
- Audit: You can audit document sequences, if required, to provide an audit trail of the document sequences used in a specific product.
- Display Message: Select this check box to display a message to inform the user sequence and name.
- Validate Transaction Date

The diagram in the previous slide shows document sequences, which are then assigned to documents. The result is sequenced documents. The BOL (bill of lading) and PKSLP (packing slip) document sequences are predefined.

Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- Shipping Documents and Sequences
- **Exceptions**
- Lookups
- User Roles



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Shipping Exceptions



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During shipping and transportation of goods, many possibilities may arise for violating the requirements of a shipper, transportation carrier, or the customer. These situations are called shipping exceptions. The process of handling the exception is called Handling Shipping Exceptions. Use shipping exceptions to identify and handle nonconforming operations that violate the requirements of your business or those of your carriers and customers.

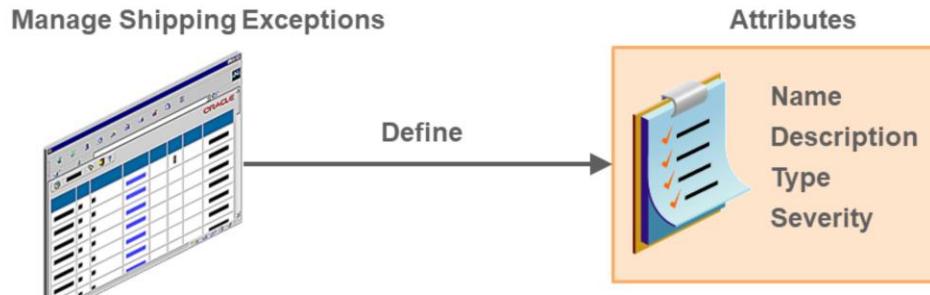
Some exceptions are seeded by default. You can define your own manual exceptions, as well.

Shipping exceptions are raised on shipments, shipment lines, containers. For each shipping entity the shipping exceptions that are logged against it appear on the Review Shipment Exceptions page.

Shipping exception types:

- Error
- Warning
- Information

Shipping Exceptions



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You can define shipping exceptions to meet your unique business requirements. For example, you can define a shipping exception for a scenario where the transportation carrier doesn't deliver the goods to the customer on time. You can manually log this exception within the entity against the transportation carrier.

Define the shipping exceptions on the Manage Shipping Exceptions page.

This diagram shows that you can define shipping exceptions by using attributes such as name, description, type, and severity.

Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- Shipping Documents and Sequences
- Exceptions
- **Lookups**
- User Roles



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Shipping Lookups

Shipping lookups with a customization level of User:

Lookup Type	Meaning
WSH_SHIPPING_PRIORITY	Shipping Priority
WSH_FREIGHT_COST_TYPE	Shipping Cost Types
WSH_FREIGHT_CHARGE_TERMS	Shipping Freight Terms
ORA_WSH_TRANSPORT_REASON	Transportation Reason



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Lookups are lists of values in applications. You define a list of values as a lookup type consisting of a set of lookup codes, each code's translated meaning, and optionally a tag. Users see the list of translated meanings as the available values for an object.

Lookups provide a means of validation and lists of values where valid values appear on a list with no duplicate values. For example, an application might store the values Y and N in a column in a table, but when displaying those values in the user interface, Yes or No (or their translated equivalents), are available for users to select.

Creating a new standard lookup involves creating or selecting a lookup type containing the lookup code and determining appropriate values for the lookup codes and their meanings.

Customization levels are defined on lookup types and can be used to enforce predefined data security policies that restrict how and by whom lookup types and their codes can be edited.

Shipping provides numerous Shipping lookups, of which four have a customization level of User. The table in the slide shows the lookup type followed by the meaning:

- **WSH_SHIPPING_PRIORITY:** Shipping priority
- **WSH_FREIGHT_COST_TYPE:** Shipping cost types
- **WSH_FREIGHT_CHARGE_TERMS:** Shipping freight terms
- **ORA_WSH_TRANSPORT_REASON:** Transportation reason

Topics

- Shipping Parameters
- Carriers
- Shipping Cost Types
- Shipping Documents and Sequences
- Exceptions
- Lookups
- User Roles

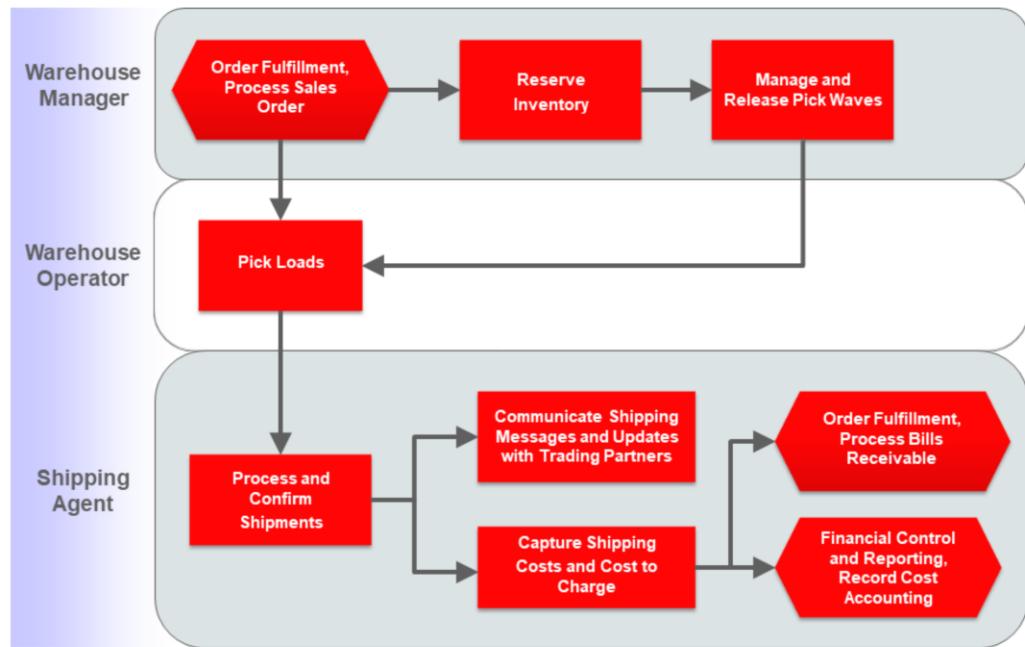


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Shipping Process Flow and User Roles



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The shipping process flow starts when a sales order is generated in Order Management. A reservation is then created, designating the material for a specific sales order and preventing it from being used by other demand sources. The Warehouse Manager:

- Monitors and releases sales orders for picking in the warehouse
- Generates pick slips for picking material for outbound material movement
- Creates pick waves by using a variety of criteria leading to more efficient warehouse operations

The Warehouse Operator monitors and performs the picking activity. The Pick Loads activity includes picking outbound, replenishment, and requisition pick slip types. The Warehouse Operator searches for a pick slip and confirms the pick slip in a single action. The Warehouse Manager generates and distributes pick slip reports to provide instructions to Warehouse Operators on material movement.

The Shipping Agent can:

- Process and confirm outbound shipments including packing, creating shipments, and resolving exceptions
- Generate outbound shipping documentation, such as the carrier bill of lading upon ship confirmation
- Communicate shipping messages and updates to trading partners. Shipping messages include the contents or a shipment, shipment status, shipment arrival details, and shipment requests. Communicating shipping messages and updates with trading partners provides the ability to integrate with external systems.
- Capture all shipping costs that are associated with a shipment and assign them to a shipment, shipment line, or packing unit

Finally, Shipping passes shipping information to order fulfillment and cost management for further downstream processing.

Demonstration: 26-1

- Defining Shipping Parameters



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Practice: 26-1

- Creating a Carrier



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Summary

In this lesson, you should have learned how to:

- Explain and describe shipping parameters
- Define a carrier
- Explain shipping cost types
- List the shipping documents that are supported
- Describe shipping exceptions
- Identify shipping lookups
- Verify user roles



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Shipping Orders: Manage Pick Waves

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
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30 minutes	Lecture and Demo
20 minutes	Practice
50 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Describe the pick wave process
- Understand pick release-related setup activities
- Demonstrate pick wave release rules
- Define release sequence rules
- Create picking rules
- Make picking rule assignments
- Select a pick slip grouping rule
- Describe how job sets are used

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Topics

- Managing Pick Waves: Overview
- Movement Requests
- Pick Wave Release Rules
- Release Sequence Rules
- Picking Rules
- Pick Slip Grouping Rules



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What Is a Pick Wave?

A batch of shipment lines that are pick released together based on certain business-related criteria



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Pick release finds and releases eligible shipment lines that meet the release criteria, and creates movement requests. The movement request transaction creates a reservation and determines the inventory source subinventory. Then Shipping creates pick slips, which allocate specific details to the line to be picked, such as locator, lot, or serial number.

The screenshot in the slide shows infolets from the Inventory Management landing page. In the Inventory Management work area, you can monitor the progress of a pick wave after it's created and released for picking.

Pick Wave Usage

You might want to use pick waves when:

- Fulfilling a particular customer demand
- Optimizing transportation
- Fulfilling backorders to reduce delay in shipment

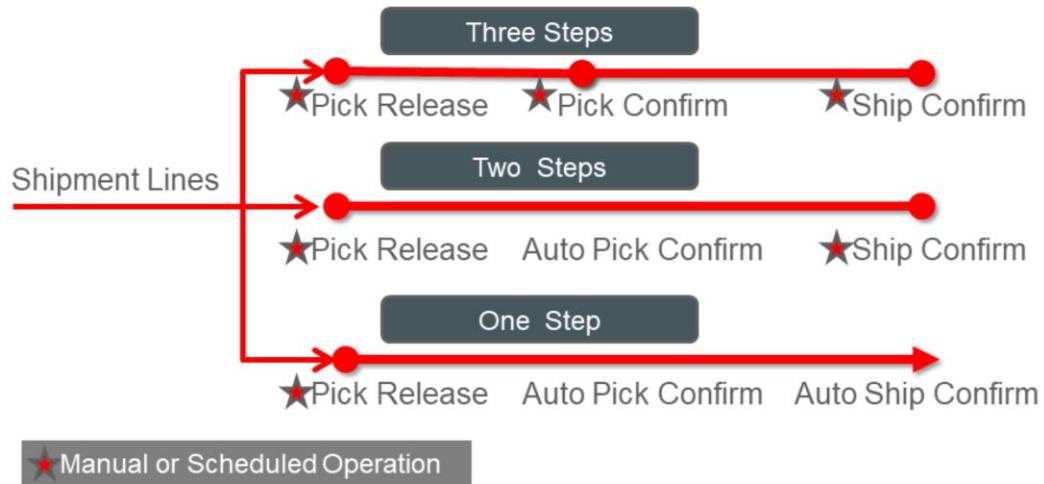
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Examples of when you might want to use pick waves:

- Fulfilling a particular customer demand: Your customer has specific quality demands, so you create a pick wave to perform extra quality checks or follow special procedures during shipping.
- Optimizing transportation: Your organization has several customers in one location, so your organization collects all the shipment lines for those customers and ships them together through a common carrier.
- Fulfilling backorders to reduce delay in shipment: Your organization creates a pick wave to fulfill all backordered lines and ship them using a faster shipping method.

Pick Release Process Options

You can determine the number of pick release steps.



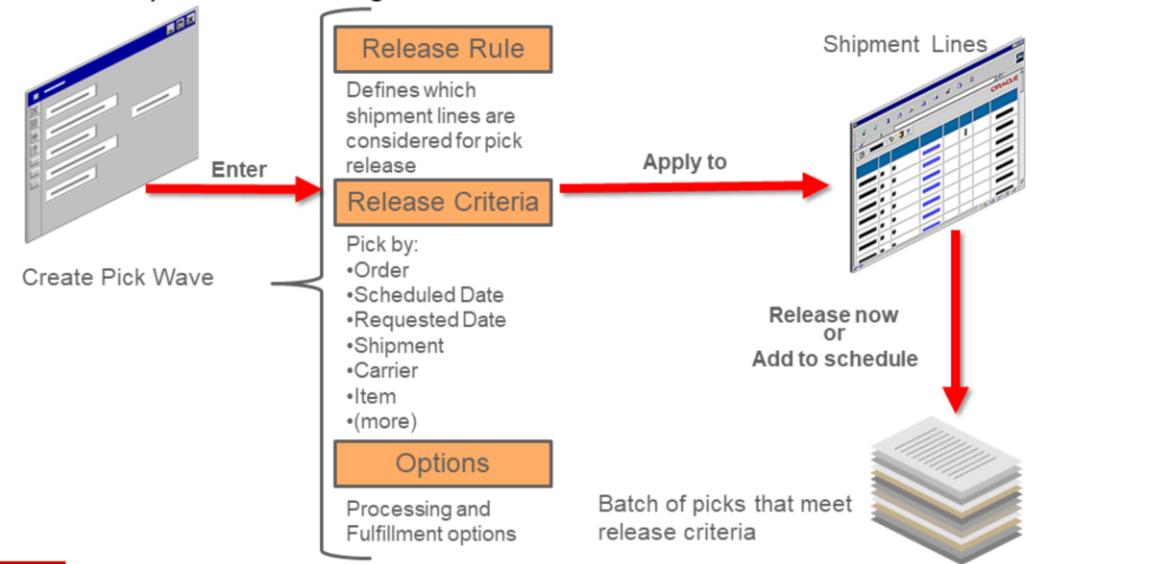
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You can determine the number of pick release steps. These steps are:

- Pick release
- Pick confirmation (automatic or manual)
- Ship confirmation

Pick Release

Shipment lines are pick released together based on certain business-related criteria.



The graphic shows that a pick wave contains the following:

- Release rule that defines which shipment lines are considered for pick release
- Release criteria, which are the attributes that will be considered
- Processing and fulfillment options

The shipment lines are evaluated using the rules, release criteria, and options of the pick wave. You can release them immediately or schedule their release.

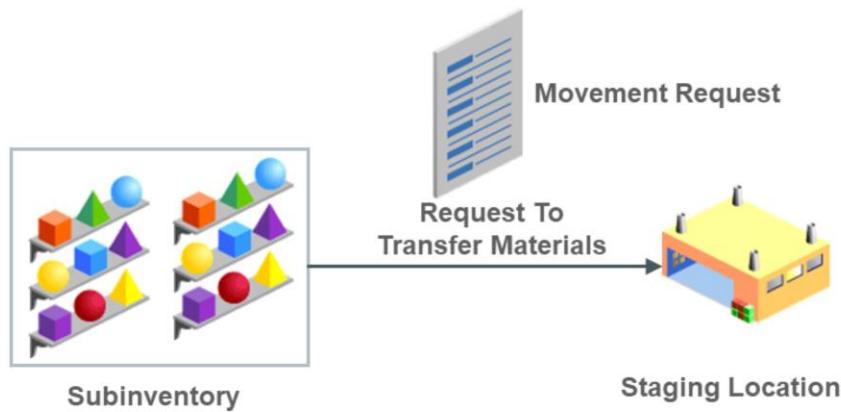
Topics

- Managing Pick Waves: Overview
- **Movement Requests**
- Pick Wave Release Rules
- Release Sequence Rules
- Picking Rules
- Pick Slip Grouping Rules



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Movement Request



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A movement request is a request to transfer materials from a subinventory to a staging location. The pick release process creates movement requests in the background for lines and subinventory transfers. The pick consists of lines that must be picked from the subinventory.

To release the lines, the lines must be allocated with materials from the subinventory. In a process called allocation, the Inventory picking engine populates the lines with the transaction details and places a high-level reservation on the material. A high-level reservation is a guarantee of available inventory. When you create a pick wave, if sufficient inventory is available, then a high-level reservation is created. This high-level reservation guarantees that the quantity you need is available.

Staging Location

A staging location is the destination subinventory where the materials are deposited after picking. Material deposited in the staging location is then in position for its next step, which is ship confirmation. Each organization must designate at least one staging subinventory. In a warehouse, the staging location is physically located typically near the shipping dock. Staging subinventories must be reservable. Each pick wave that's created at pick release has the same destination staging subinventory.

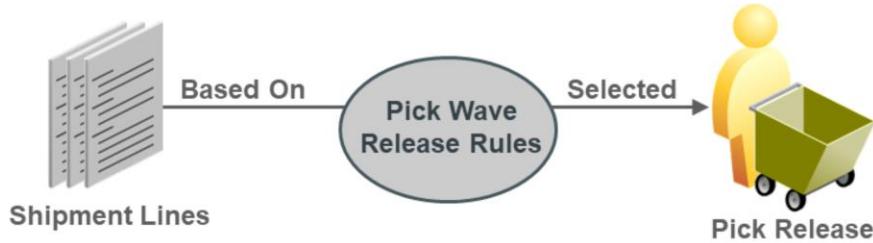
Topics

- Managing Pick Waves: Overview
- Movement Requests
- **Pick Wave Release Rules**
- Release Sequence Rules
- Picking Rules
- Pick Slip Grouping Rules



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Pick Wave Release Rule



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Define the pick wave release rules to specify the criteria by which the shipment lines are selected for pick releasing and to determine the picking operations to perform on the shipment lines. Pick wave release rules provide a means for defining one-time setup for your pick release process. You can create a pick release rule with its own set of unique parameters for pick releasing. Pick release rules are most convenient to use when you run pick release regularly based on the same set of criteria.

Note: You must have a release rule defined when you pick release using a scheduled process or when you use the automatic pick, pack, and ship features.

Criteria for Pick Wave Release Rules

Demand selection: Ship-from organization, subinventory, release status

The graphic in the slide represents release sequence rules and how they relate to inventory allocation.

Demonstration: 27-1

- Managing Pick Wave Release Rules



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Topics

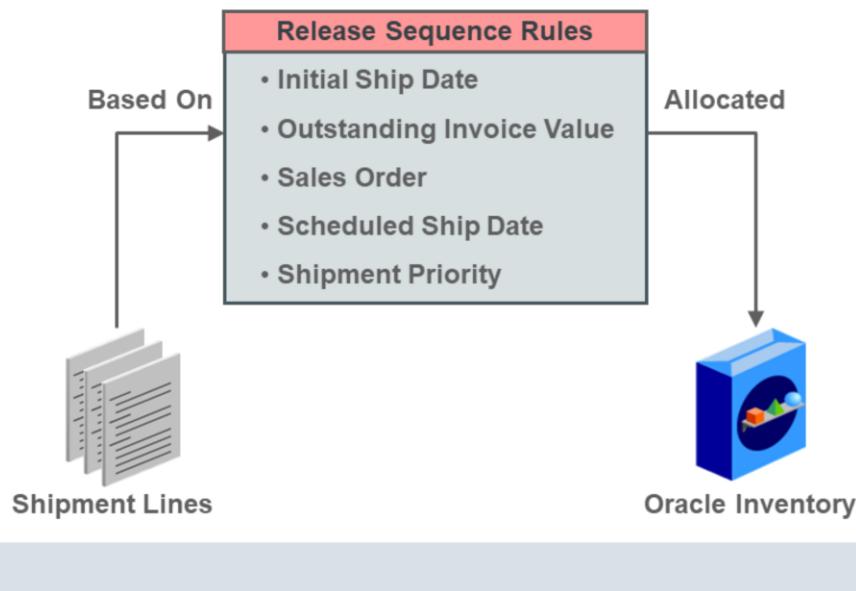
- Managing Pick Waves: Overview
- Movement Requests
- Pick Wave Release Rules
- **Release Sequence Rules**
- Picking Rules
- Pick Slip Grouping Rules



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Release Sequence Rules

Specify the order in which to allocate the eligible picking lines to Oracle Inventory.



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Release sequence rules specify the order in which to allocate the eligible picking lines to Inventory during pick release. You can release the picking lines by selecting any of these attributes:

- Initial ship date: Release picking lines based on the initial ship date.
- Outstanding invoice value: Release picking lines based on the outstanding invoice value.
- Sales order: Release picking lines based on the order number. If you define a priority for the order number, then you can't define priority for outstanding invoice value.
- Scheduled ship date: Release picking lines based on scheduled date of delivery.
- Shipment priority: Release picking lines based on the shipment priority.

You can assign a priority of 1 to 5 to these attributes, where 1 is the highest priority and 5 is the lowest. You can also determine whether to pick the lines based on ascending or descending order.

Example

Attribute	Priority Level	Order
Shipping Priority	1	Ascending
Schedule Date	2	Ascending

According to the preceding table, the order lines with the highest shipping priority and the earliest scheduled date are allocated with the material first.

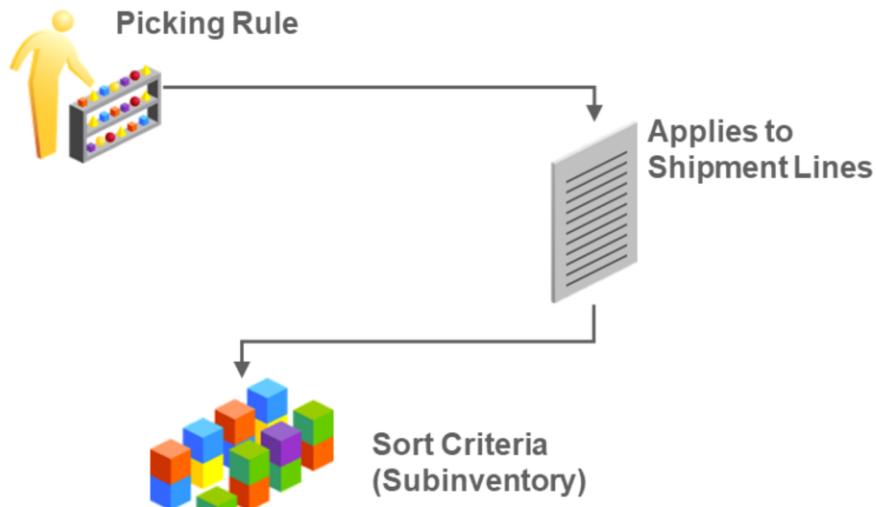
Topics

- Managing Pick Waves: Overview
- Movement Requests
- Pick Wave Release Rules
- Release Sequence Rules
- **Picking Rules**
- Pick Slip Grouping Rules



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Picking Rules



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A set of criteria that you define that defines the priorities that Order Management uses when picking items out of finished goods inventory to ship to a customer.

Define picking rules in Oracle Fusion Inventory. Movement requests use the picking rules that are set up in Oracle Fusion Inventory to locate the material that's required to fulfill the movement request line. The picking rules suggest the staging transfer transaction lines with appropriate source information that's required to obtain enough material in the staging location for the shipment.

You can create picking rules that enable you to determine which material to pick and the order in which to pick it for shipment lines. Oracle Fusion Inventory observes the picking criteria order and the options for each criterion.

You can create rules based on the following restrictions:

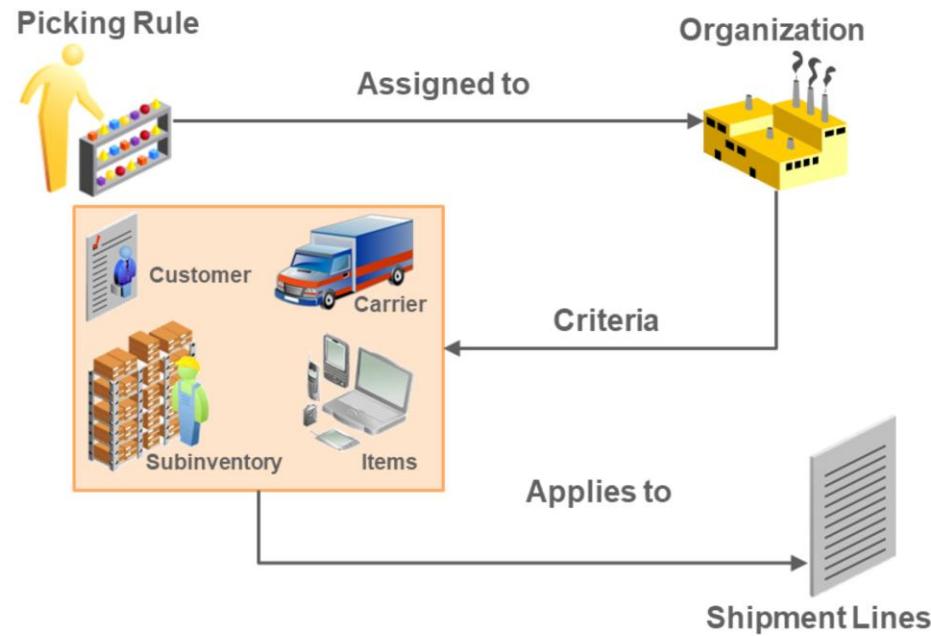
- Shelf life days: Number of days each lot is active
- Single lot: Allows allocation of multiple lots for a particular demand
- Allow partial picking: Allows allocation of quantities less than the total lot quantity available
- Customer specification matching: Requires quality specification matching

You can also create sort criteria that determine which material is picked first:

- Lot: FIFO (First In First Out) or FEFO (First Expired, First Out)
- Lot: Ascending or descending
- Locator: Ascending or descending
- Locator Receipt Date: Ascending or descending
- Revision: Ascending or descending
- Revision Effective Date: Ascending or descending
- Subinventory: Ascending or descending
- Subinventory Receipt Date: Ascending or descending

When you define an item, you choose a picking rule to determine the order in which to pick revisions, lots, subinventories, and locators for shipment lines. Oracle Fusion Shipping submits requests to Inventory, which uses the information in the picking rules to generate pick slips for shipment lines. Inventory examines the picking criteria in the order of sequence number in the Picking Rules Assignment window. Then, Inventory examines the options for each criterion.

Picking Rule Assignments



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After you create a picking rule, use the Picking Rule Assignments page to assign the picking rule to an inventory organization. You must select an organization and enter a sequence number and picking rule.

Other options:

- Make the rule active or inactive.
- Select a date type (such as month, week, or a date range) in which the rule is applicable in the organization.
- Determine how the inventory is allocated:
 - Customer
 - Carrier
 - UOM or UOM Class
 - Subinventory (source or destination)
 - Movement Requests Created By
 - Item (type or category name)
 - ABC Assignment Group and Class
 - Transaction (source type, type, or action reason)

Example 1: If you create a rule that allocates lots based on FIFO, then you can assign that rule to a particular customer, so that material you pick for that customer is allocated based on FIFO.

Example 2: If you create a picking rule that allocates material by lot number in ascending order followed by locator in ascending order, then you can assign that rule to a particular item so that material you pick is allocated based on the lowest lot number of the item in the lowest locator number where the item resides.

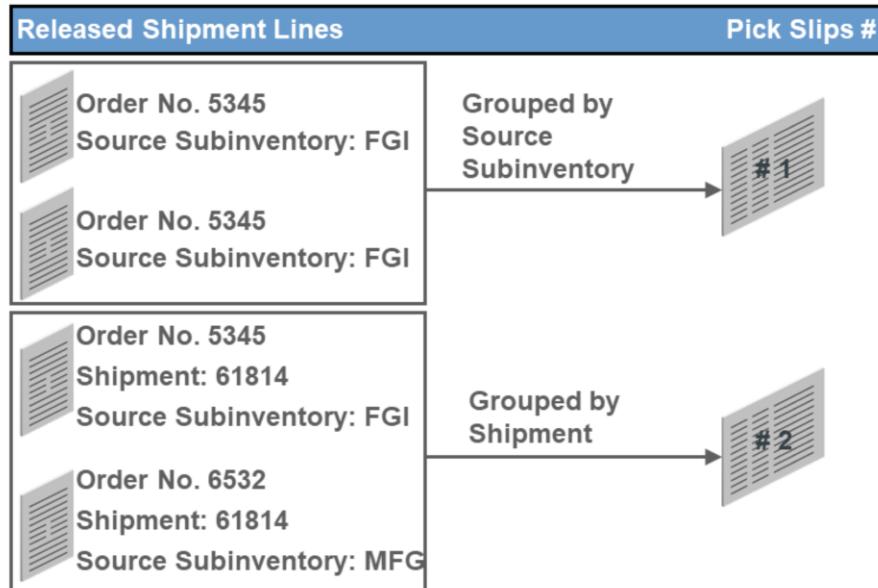
Topics

- Managing Pick Waves: Overview
- Movement Requests
- Pick Wave Release Rules
- Release Sequence Rules
- Picking Rules
- Pick Slip Grouping Rules



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Pick Slip Grouping Rule



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Use pick slip grouping rules to specify the criteria to group the shipment lines together in a pick slip. For example, if you select shipment as your grouping criteria, then all shipment lines for the same shipment are grouped together on a pick slip. Use the Pick Slip Grouping Rules window to define the pick slip grouping rule.

Some of the ways you can group pick slips:

- Order number
- Customer
- Ship to
- Carrier
- Trip stop
- Delivery
- Shipping priority
- Subinventory (source or destination)
- Locator (source or destination)
- Item or revision
- Project
- Task
- Job or schedule
- Operation
- Department
- Push or pull

Note: The last four attributes are available only if Oracle Warehouse Management system is installed.

Shipping Document Job Sets

- You can define sets of shipping documents, called shipping document job sets, and use them to generate shipping documents at pick release.

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Practice 27-1:

- Creating a Pick Wave for a Single Order

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Summary

In this lesson, you should have learned how to:

- Describe the pick wave process
- Understand pick release-related setup activities
- Demonstrate pick wave release rules
- Define release sequence rules
- Create picking rules
- Make picking rule assignments
- Select a pick slip grouping rule
- Describe how job sets are used



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Shipping Orders: Confirm Picks

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Learning Objectives



After you complete this lesson, you should be able to:

- Explain the difference between manual and automatic pick confirmations
- Describe the setup required for manual and automatic pick confirmations
- Pick confirm a shipment line

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Topics

- Pick Confirmation: Overview
- Pick Confirmation Setup



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Pick Confirmation: Overview

Pick confirmation performs the subinventory transfer that systematically moves the material from its source location to the staging location.

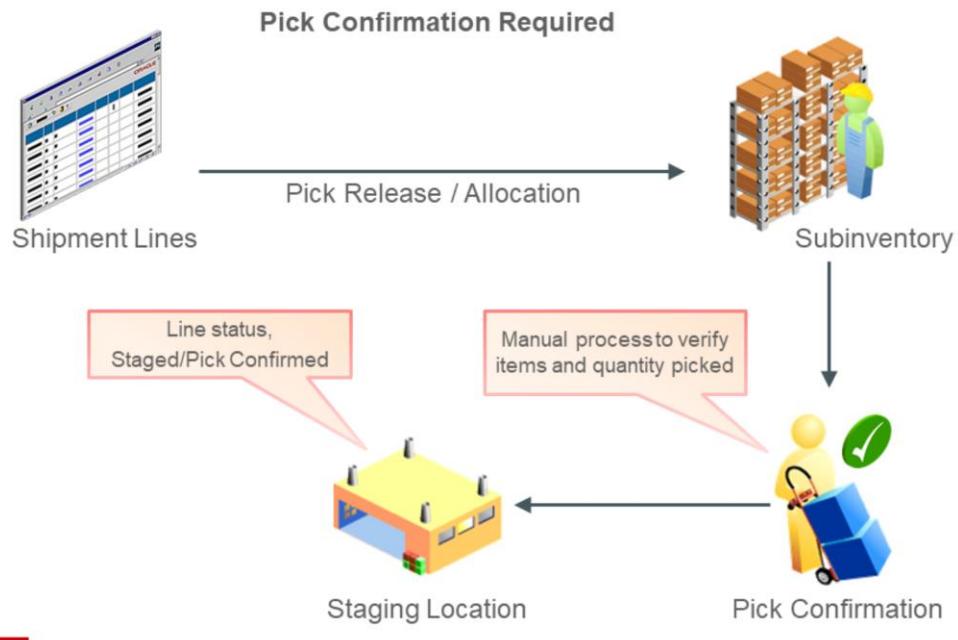


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Pick confirmation is a process that transfers materials from the source subinventory location to the staging location. The transfer is performed based on the allocation made by Oracle Fusion Inventory to the movement request lines. Pick confirmation automatically transfers the organization-level reservation to an allocated reservation (including lots, subinventory, and locators) in the staging location. Use Inventory to detail and pick confirm manually, or set up pick confirmation in Organization Parameters to occur automatically at pick release.

The purpose of pick confirmation is to confirm the material dropped off in staging. Pick confirmation ensures that the system's records match actual inventory movements. At pick confirmation, you can report a missing quantity or change information if material is picked from a different lot, serial, locator, or subinventory. You can use the pick confirmation pages to swap commitments.

Pick Confirmation Process



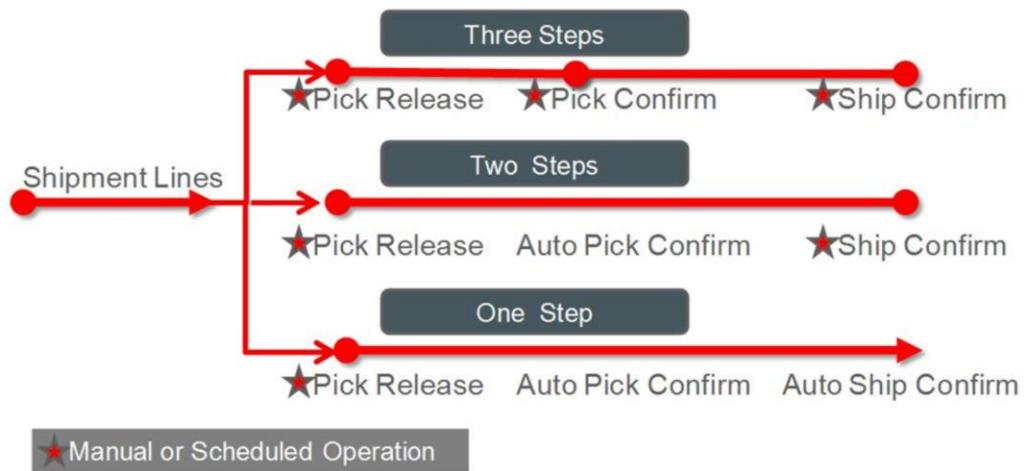
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The movement request line details are transacted (in Inventory) to confirm the material drop-off in staging. Pick confirmation performs the subinventory transfer that systematically moves the material from its source location in the warehouse to the staging location.

The diagram in the slide shows the pick confirmation process steps, which are listed as follows:

1. Inventory pick releases and allocates the shipment lines to the movement request lines.
2. The material is readied for transfer out of the subinventory.
3. You verify the picked item and item quantity manually.
4. The materials are put in the staging location. The pick confirmed quantity is assigned a status of Staged/Pick Confirmed. Unconfirmed quantity changes to Backordered status (not shown in the diagram).

Release Process Options



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This graphic shows release process options. Automatic and manual pick confirmation are options in this process. You can combine the following steps:

- Pick release
- Pick confirmation (automatic or manual)
- Ship confirmation

If your organization's picks rarely deviate from the suggested picking lines, or if the overhead of requiring a manual pick confirmation is unmanageable, then you might want to pick confirm automatically immediately after the lines are detailed.

If your organization ships high volumes, then it can benefit from a one-step process for speed and efficiency. However, if your organization has a lot of deviation in ordered versus shipped quantities and highly detailed picks, then it may benefit most from a two-step process that includes manual pick confirmation.

Topics

- Pick Confirmation: Overview
- Pick Confirmation Setup



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Manual Pick Confirmation Setup

The screenshot shows the 'Manage Inventory Organization Parameters' page for the organization 'Seattle'. The 'Item Sourcing Details' tab is selected. In the 'Picking Defaults' section, there is a checkbox labeled 'Pick confirmation required'. A blue callout box points to this checkbox with the text: 'Select when manual confirmation of the picked item and quantity is required.'

Manage Inventory Organization Parameters: Seattle

Financial Information

Management Business Unit US1 Business Unit Legal Entity US1 Legal Entity

Primary Ledger US Primary Ledger Profit Center Business Unit US1 Business Unit

General Lot, Serial Number, and Packing Unit Item Sourcing Details Additional Information

Picking Defaults

Picking Rule Absolute LIFO

Subinventory Order Pick confirmation required

Locator Order Overpicking for movement requests enabled

Quantity Exception Reason Automatically populate picked quantity during pick confirm

Item Sourcing Details

Type Capture picking exceptions

Purchasing by revision

Distribution Parameters

Logistics services organization

Back Next Save Save and Close Cancel

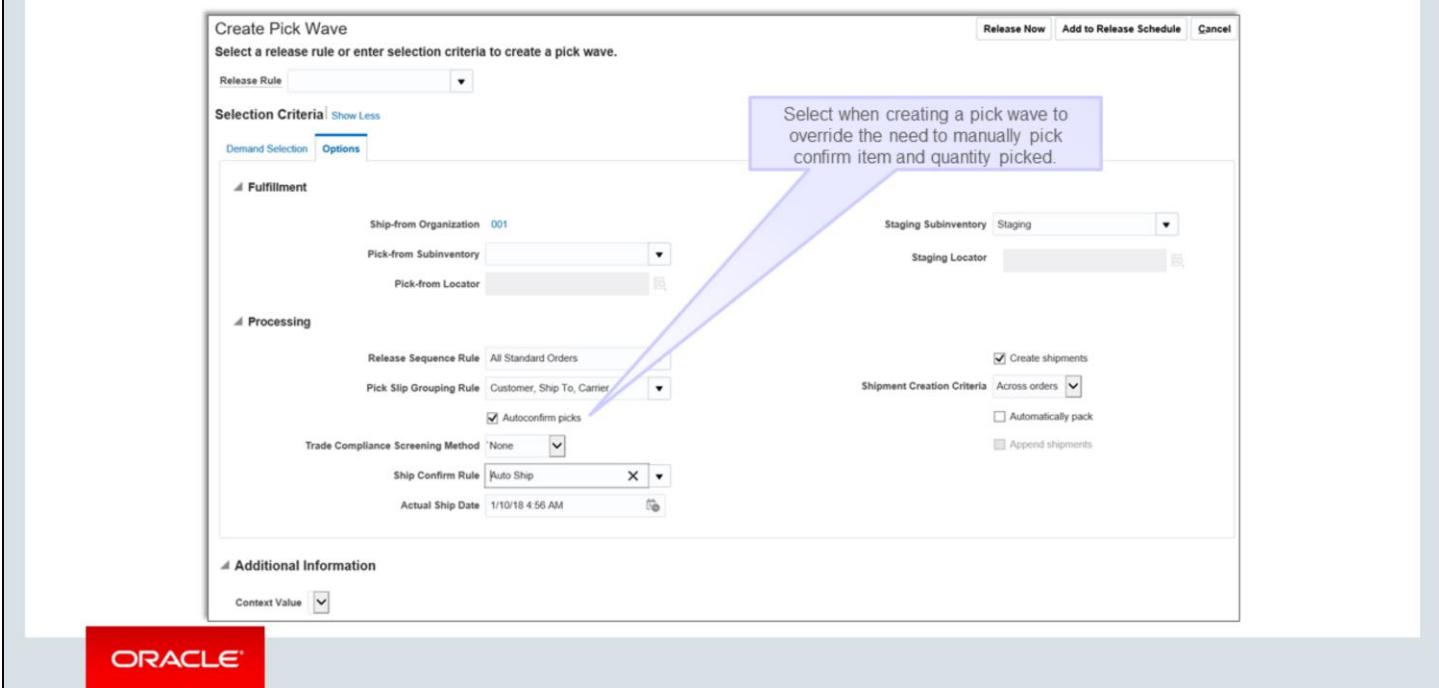
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If you want your pickers to manually pick confirm, then select the **Pick Confirmation Required** check box on the Manage Inventory Organization Parameters page (shown in this screenshot). If you don't select the check box, then pick confirmation occurs automatically.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Manufacturing and Supply Chain Materials Management offering, and then search for the **Manage Inventory Organizations** task. Select the task in the **Customers** functional area.
3. On the **Manage Inventory Organizations** page, search for an organization. Then select the organization and click **Manage Organization Parameters**.
4. On the **Manage Inventory Organization Parameters** page, click the **Item Sourcing Details** tab.

Automatic Pick Confirmation Setup



If you want to enable automatic pick confirmation, then select the Autoconfirm Picks check box on the Options tab of the Create Pick Wave page, as shown in this screenshot. Otherwise, you must pick confirm manually.

Navigation:

1. From the **Navigator**, select **Supply Chain Execution**, and then click **Inventory Management**.
2. In the **Inventory Management** work area, click the **Tasks** panel tab and then select **Shipments** in the **Show Tasks** list.
3. Select **Create Pick Wave**.

Demonstration: 28-1

- Confirming a Pick Slip

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Instructor note: Instructor should demonstrate the above practice.

Practice: 28-1

- Confirming a Pick Slip

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Summary

In this lesson, you should have learned how to:

- Explain the difference between manual and automatic pick confirmations
- Describe the setup required for each process
- Pick release and pick confirm a shipment line



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Shipping Orders: Confirm Shipment

Part 4: Fulfilling Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	15 minutes	Lecture and Demo
	25 minutes	Practice
	40 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Describe ship confirmation key concepts
- Explain one-step shipping
- Define a ship confirmation rule
- Explain how to control ship confirm using shipping parameters

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Topics

- Ship Confirmation: Key Concepts
- One-Step Shipping
- Shipping Confirmation Rules
- Shipping Parameters
- Shipment Consolidation



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What Is Ship Confirm?

Ship confirm is the process of confirming that items have shipped from the staging location. When you ship confirm a shipment, Oracle Shipping confirms that the shipment lines associated with the shipment have shipped.



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Different options are available to provide flexibility for automating many tasks that are associated with ship confirmation. For example, if you select the Ship Entered Quantities, Unspecified Quantities Ship option when you ship confirm, then the shipped amounts are processed automatically, so that each shipment line with a missing shipped quantity value is recorded as fully shipped. This saves you from manually entering each item as fully shipped.

Shipment lines must be in the Staged status to perform ship confirm.

Pick Release and Ship Confirmation Process Options



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An automated shipping process is useful when you rarely modify attributes of the shipment. You can use the automated shipping process to perform the following automatically:

- Pick release: You can automate the pick release process to perform shipment creation, pick selection, pick allocation, and pick confirmation.
- Packing: You can run the Pack Shipments scheduled process to automatically pack shipment lines within a range of parameters such as pick wave, from shipment, to shipment, bill of lading, ship-to location, and customer.
- Ship confirmation: You can run the Confirm Shipments scheduled process to automatically ship confirm shipments within a range of parameters, such as ship confirm rule, actual ship date, ship-from organization, pick wave, from shipment, and to shipment.

One step: Performs pick release, automatic pick confirmation, and automatic ship confirmation in one action.

Two steps: Performs pick release, automatic pick confirmation, and ship confirmation in two actions. The two-step process represents the most commonly used process for Shipping users.

Three steps: Performs pick release, pick confirmation, and ship confirmation in three actions.

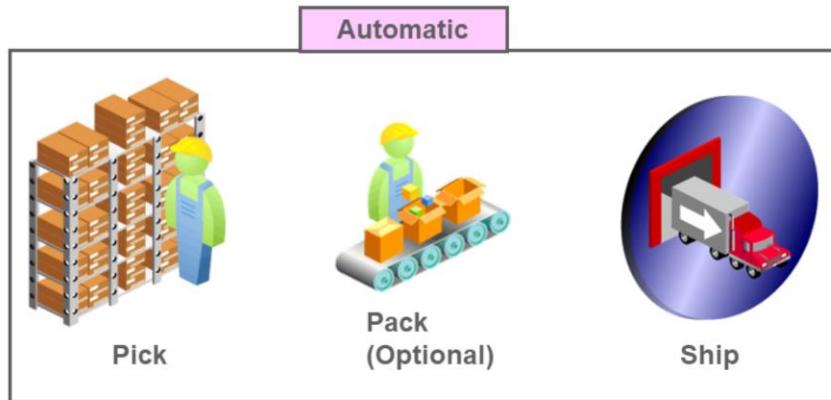
Topics

- Ship Confirmation: Key Concepts
- One-Step Shipping
- Shipping Confirmation Rules
- Shipping Parameters
- Shipment Consolidation



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One-Step Shipping



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One-step shipping involves picking and shipping; or picking, packing, and shipping of one or more shipments or shipment lines. When you perform one-step shipping, you achieve:

- Automatic creation of shipments for shipment lines, if shipment lines aren't associated with a shipment.
- Pick release and pick confirm all shipment lines assigned to the shipments. This includes the shipments that were created automatically.
- Automatic packing of all shipment lines assigned with the shipments that are in the Staged status.

When you use one-step shipping, automatic ship confirmation confirms all shipment lines that are assigned to shipments in Staged status and that don't require assignment of serial numbers.

Note

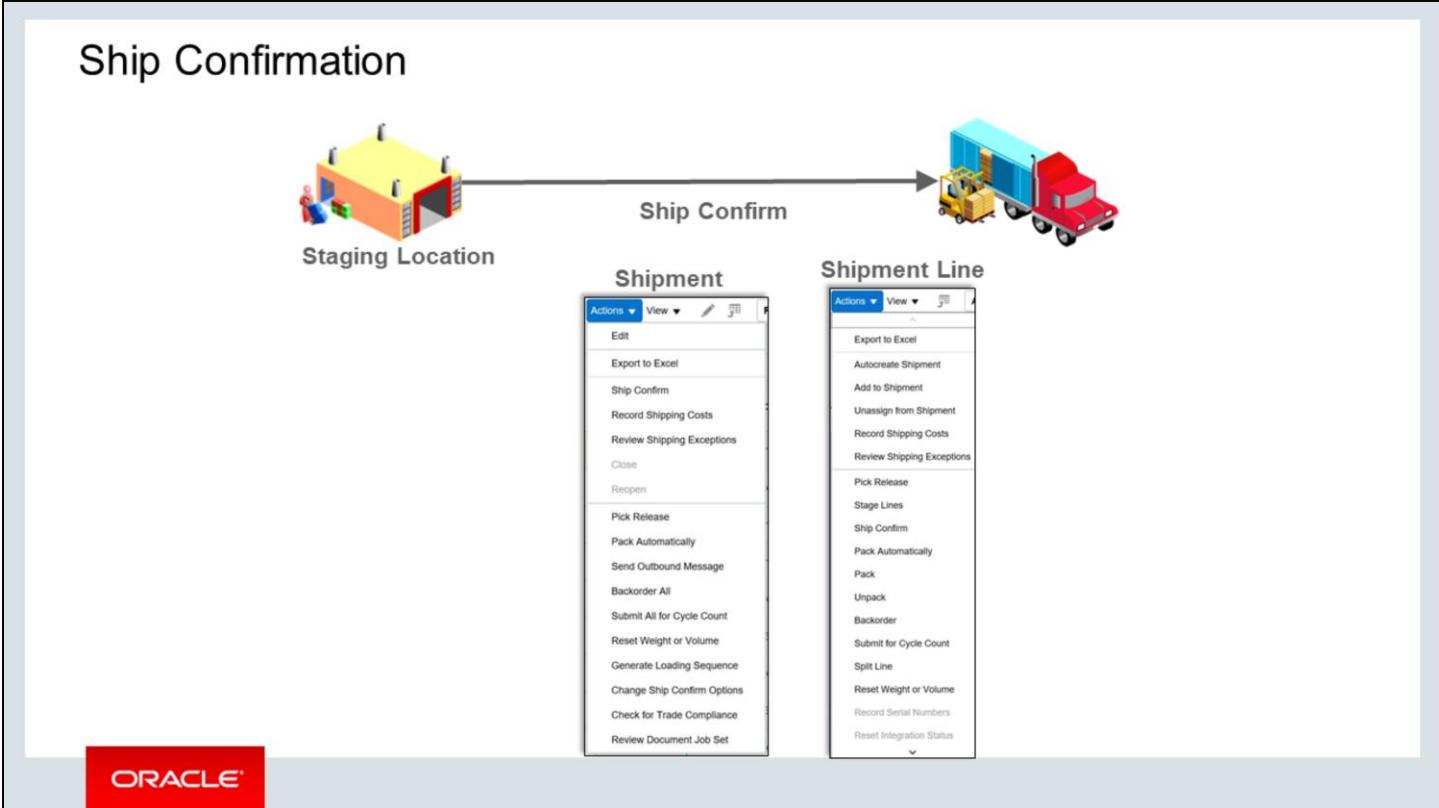
- If you want to pack all shipment lines into LPNs automatically, then you must set the autopack level for your organization to Yes or Autopack Master on the Shipping Transaction tab of the Shipping Parameters window.
- Define Manage Default Packing Configurations for the items on the shipment line items.

Note

- If you want to ship confirm from the Manage Shipments page, then you must attach a ship confirm rule to the organization that the sales order belongs to.
- If you want to ship confirm automatically, then you must assign a ship confirmation rule to your organization. You can assign the same on the Shipping Transaction tab of the Shipping Parameters window.
- If the pick, pack, and ship process isn't successful for even one shipment line of a shipment, then one-step shipping can't be performed on the entire shipment.

The graphic in the slide shows the following tasks: pick, pack (optional), and ship.

Ship Confirmation



When a shipment line has a status of Staged, you can perform the following actions:

- Export to Excel: Export page contents to a Microsoft Excel file for review purposes.
- Ship Confirm: Confirm all lines in a shipment.
- Record Shipping Costs: Enter specific costs that are related to the shipment.
- Review Shipping Exceptions: View any exceptions that are associated with the shipment.
- Automatically Pack: Automatically pack the shipment line into a container based on container load relationships.
- Send Outbound Message: Initiate the Send Manifest request process.
- Shipping Document Job Set: You can define sets of shipping documents, called shipping document job sets, and use them to generate shipping documents at ship confirmation. For more information about shipping document job sets, see lesson 26.

These same actions appear in the screenshots on the slide.

- Backorder All: Backorder all shipment lines in the shipment. Backordering also happens when only a partial quantity of items that were pick released are shipped. When a shipment line is backordered, the shipment line is split into two shipment lines. The original line quantity is the detailed quantity. The new line quantity is the difference between the requested quantity and the detailed quantity.

Note: Backorder consolidation is an automatic process that combines several backordered shipment lines that have the same source line, back into one shipment line. Backorder consolidation is performed during pick release, cycle count, or ship confirmation. To consolidate backorders, you must select the Consolidate Backorder Lines check box on the Shipping Parameters page.

- Submit All for Cycle Count: Submit shipment for cycle counting.
- Reset Weight and Volume: Recalculate weight and volume for the lines and LPNs in the shipment based on changes that were made in the picking and shipping process.

- Generate Load Sequence: Determine the order in which lines are loaded into an LPN or lines loaded within a shipment. The order lines must be associated with a customer production sequence on the sales order line. The loading options are: Forward, Reverse, Forward Inverted, and Reverse Inverted.
- Change Ship Confirm Options: Manually change the default ship confirm options that have been determined by the shipping parameters and ship confirmation rules.

Topics

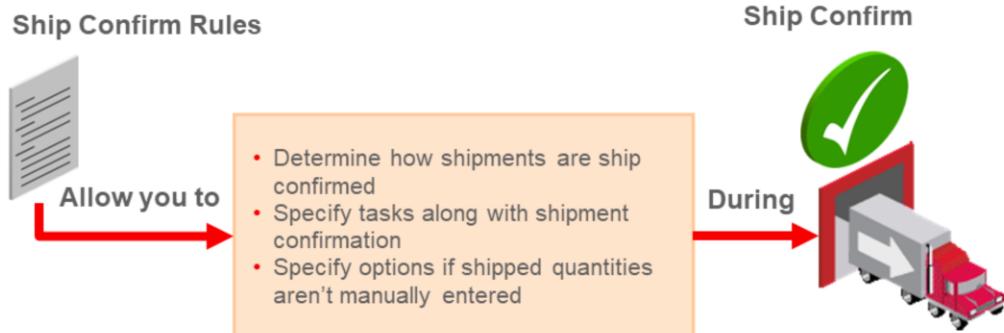
- Ship Confirmation: Key Concepts
- One-Step Shipping
- **Shipping Confirmation Rules**
- Shipping Parameters
- Shipment Consolidation



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Shipping Confirmation Rules

Configure ship confirm rules to define frequently used sets of ship confirm options used for confirming shipments.



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A ship confirm rule enables you to determine how shipments are ship confirmed.

With a ship confirm rule, you have the flexibility to specify tasks along with shipment confirmation. You can specify options if shipped quantities aren't manually entered and your organization's preference of tasks to complete along with shipment confirmation. These options are available:

- Create shipment for remaining staged quantities: A new shipment will be created for lines with remaining staged quantities. Remaining staged quantity is applicable when shipped quantity differs from picked quantity on the line.
 - Create bill of lading and packing slip: A bill of lading and packing slip are created.
- Note:** You must define sequences of type "Automatic" for the application and module "Shipping." The sequences must be assigned to document sequence categories "BOL" or "PKSLP."
- Close shipment: The shipment status is set to Closed and, as a result, all the shipment lines' statuses are set to Shipped. This defers sending inventory updates to integrated applications.
 - Specify options if shipped quantities are not manually entered: You must specify an option to apply during ship confirmation if the shipped quantity isn't manually entered for a staged line or lines. For example, consider a scenario where a shipment has 10 staged lines, and the shipped quantity is manually entered for eight of the lines. The ship confirm rule must indicate what to do with the two lines for which the shipped quantity isn't manually entered. The options are:
 - Backorder: The two staged lines are set to Backorder status and are unassigned from the shipment.
 - Cycle count: The two staged lines are marked for cycle count, set to Backorder status, and unassigned from the shipment.
 - Ship requested quantities: The requested quantity on the two staged lines is shipped.
 - Stage: The two staged lines remain staged but are unassigned from the shipment.

The graphic in the slide is explained in the notes.

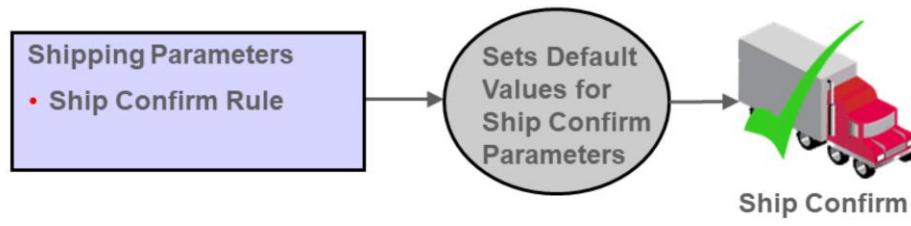
Topics

- Ship Confirmation: Key Concepts
- One-Step Shipping
- Shipping Confirmation Rules
- **Shipping Parameters**
- Shipment Consolidation



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Ship Confirm Rule: Shipping Parameters



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Ship Confirm Rule: This is the default ship confirm rule that your organization uses during ship confirmation. The Ship Confirm Rule in Shipping Parameters determines whether to do the following for the shipments being ship confirmed in your organization:

- Ship with requested quantities or ship quantities. If you select Requested Quantities, then Ship Confirm doesn't recognize any quantity entered in the Ship quantity field. This is the option you must select for Auto Ship Confirm.
- Create shipments for any remaining staged lines after a shipment is ship confirmed
- Create a bill of lading and packing slip for the shipment
- Close the shipment after ship confirm
- Defer the inventory interface
- Override the shipping method on the shipment line with a specified shipping method

The graphic in the slide shows that the ship confirm rule sets the default values for ship confirm parameters.

Topics

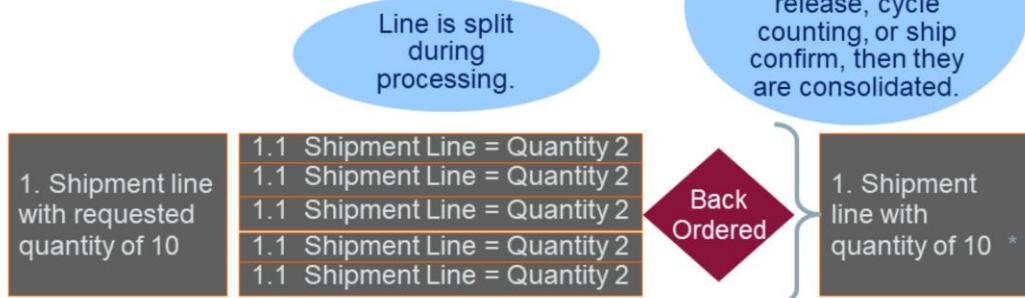
- Ship Confirmation: Key Concepts
- One-Step Shipping
- Shipping Confirmation Rules
- Shipping Parameters
- Shipment Consolidation



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Consolidation of Backordered Lines

Example



* Lines that remain packed are NOT consolidated

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How to Consolidate a Backorder: Example

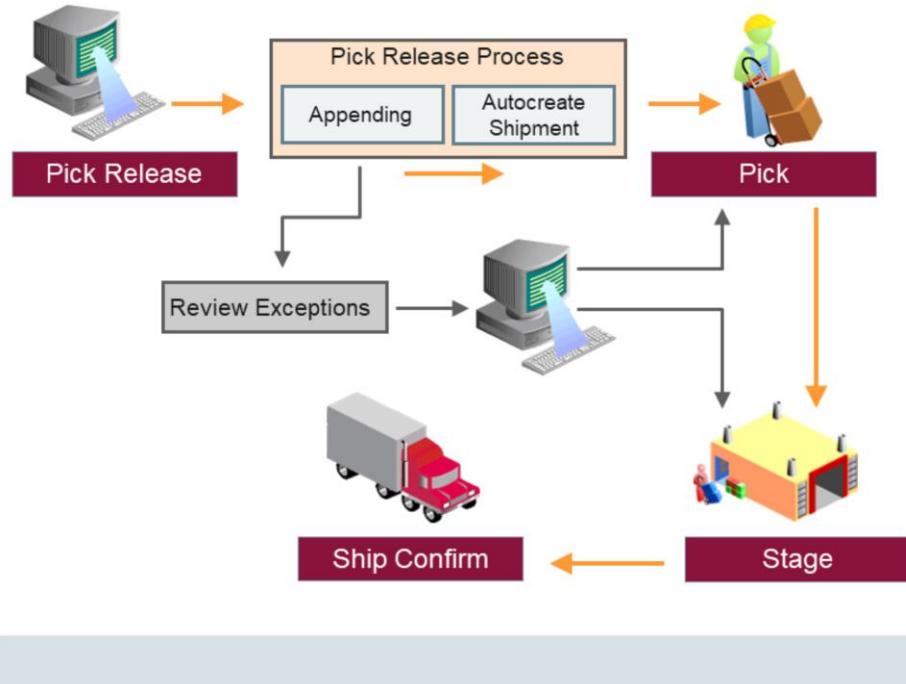
This example starts with a single line with a requested quantity of 10 items. Suppose that during packing, the line is split into five lines with a quantity of two in each container. If two or more of these lines are backordered during pick release, cycle count, or ship confirm, then these backordered lines are automatically consolidated into a shipment line with a quantity of 10. This feature consolidates the lines back into their original lines only. Unassociated lines aren't consolidated with these lines.

When the shipment lines are backordered, a message with the status information is sent back to Order Management.

Note: Lines that remain packed after backordering aren't consolidated. Backordered lines remain packed if they were assigned to a shipment prior to backorder.

The graphic is explained in the notes.

Shipment Consolidation



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The diagram in the slide illustrates the shipment consolidation process. These steps occur sequentially:

1. Pick release
2. Pick
3. Shipments are staged.
4. Shipments are ship confirmed.

After the lines are ship confirmed, shipment advice is sent back to Order Management with the details of the shipment.

Additional details about the preceding steps:

- Pick release:
 - Routinely run with the appending option
 - Attempts to consolidate shipment lines with existing shipments before running the process to create shipments automatically:
 - If consolidation fails (no candidate shipment to append is found), then shipment lines go through the standard autocreate shipment process.
 - If consolidation is successful, then the shipment line is automatically added to the shipment and a shipping exception is logged against that shipment.
- Shipments are staged.
- Shipments are shipped confirmed.

Practice: 29-1

- Confirming Shipments

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Summary

In this lesson, you should have learned how to:

- Describe ship confirmation key concepts
- Explain one-step shipping
- Define a ship confirmation rule
- Explain how to control ship confirm using shipping parameters



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Revising Orders

Part 4: Revising Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	50 minutes	Lecture and Demo
	15 minutes	Practice
	65 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Explain how to submit a change order
- Explain compensation

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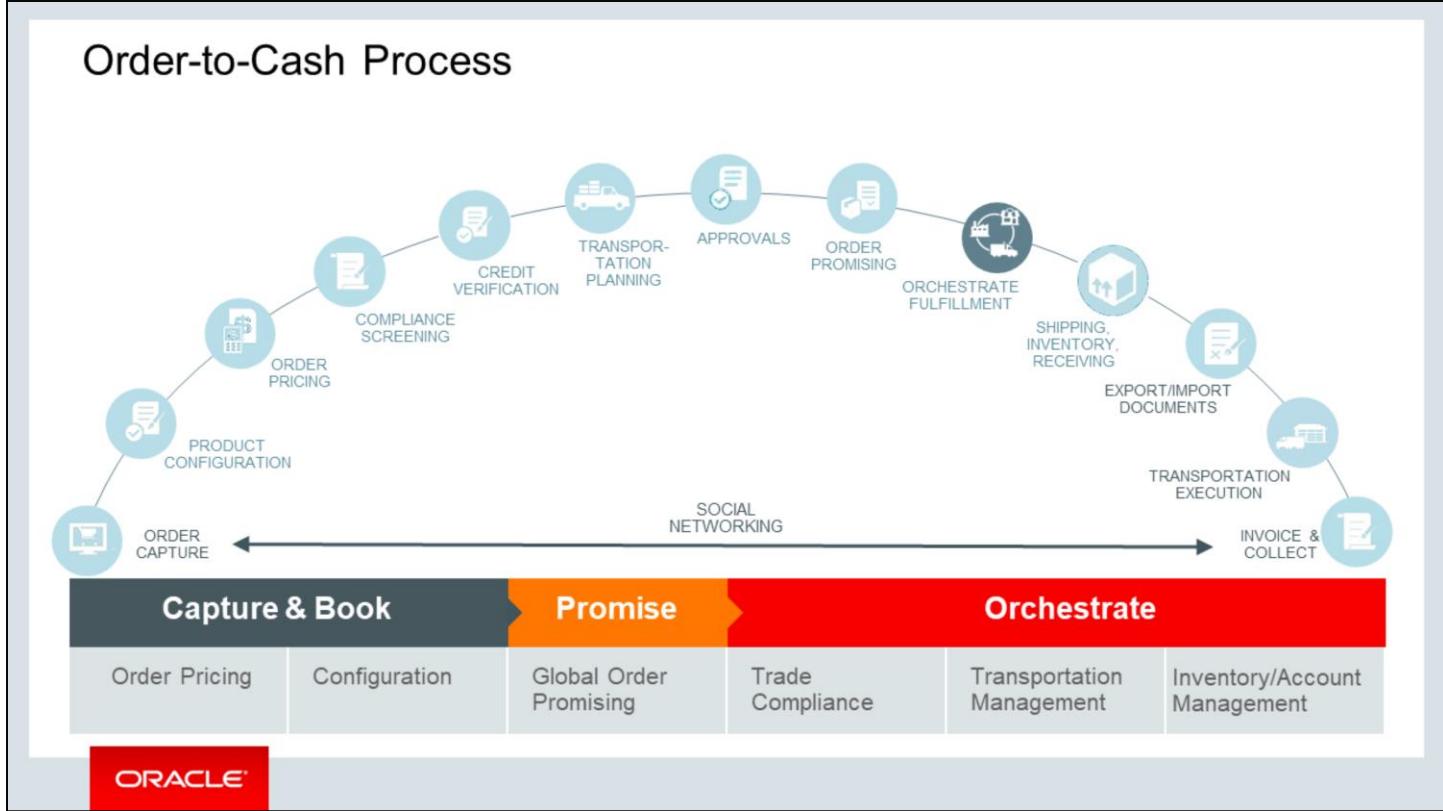
Topics

- Order-to-Cash Data Flow
- Business Flow: Change Order



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Order-to-Cash Process

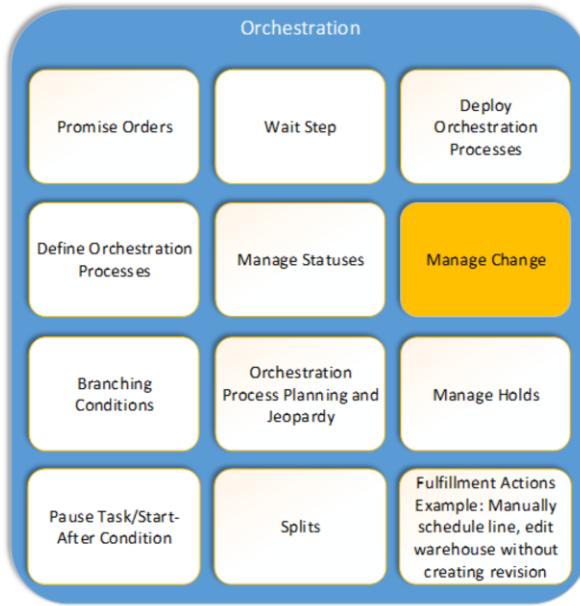


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on change management.

Change Order Processing



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Change management is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning and jeopardy management
- Fulfillment line splits
- Jeopardy management
- Deploy orchestration process
- Hold management

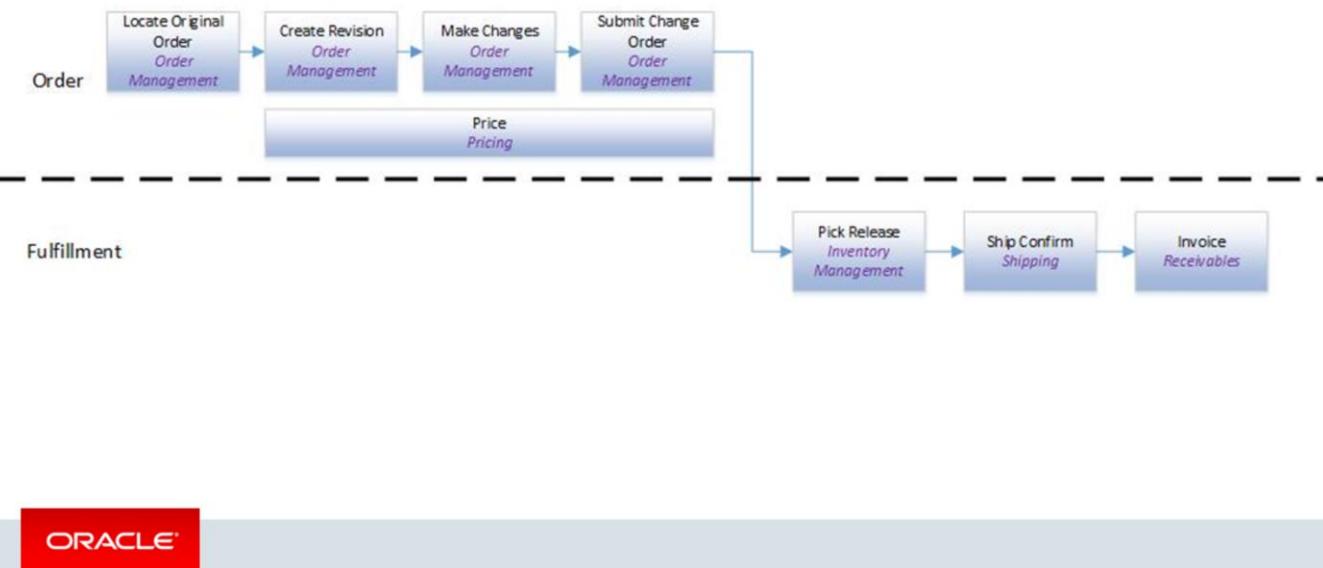
Topics

- Order-to-Cash Data Flow
- Business Flow: Change Order



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Business Flow: Change Order



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This flow chart shows a change order for a submitted order. You may also know this action as revising an order or creating an order revision.

Locate the original order and create a revision of the order, so that you can edit the order. The processing constraints determine whether you can make changes. Depending on the processing constraints, you can make changes to the order even *after* you create the revision. For example, you can cancel existing lines, add new order lines, and edit configurations.

Consider this scenario:-A customer orders an item with a quantity of 10, and 7 of the 10 already were shipped. You can't make changes to the line with the shipped quantity of 7. You can, however, change the line with the backordered quantity of 3.

Note: You can't make certain changes to the PO during drop ship.

After you make changes to the order, you submit it. The rest of the flow is similar to the flow for a physical good that's shipped from your warehouse.

Changes to an order are processed automatically. The application's change management mechanism automatically adjusts the orchestration process that's associated with the changed order. You can configure the application to cancel steps of an orchestration process and to redo them.

Change Processing: Concepts



When a change order comes in, you want Order Management to accommodate this change as seamlessly as possible.

Behind the scenes, Order Management must determine whether it's still possible to make the change and, if so, what steps need to be done, or redone.

- **Compensation:** The actions that must be done or redone because of the change. By default, each step is compensated by updating it with the new information from the change order. You can override this default behavior by specifying a compensation pattern for a particular step.
- **Compensation Pattern:** Rule that governs how a single step of the orchestration process is compensated.
- **Order Attributes That Identify Change (also known as Change Attributes):** Certain attributes of the order indicate that the order must be compensated. For example, a change to the mailing address wouldn't necessarily require rescheduling of the orchestration process. However, an increase in quantity likely would. Order Management compares the new order with the original one to determine whether any of these key attributes was affected.

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Let's talk about a few concepts associated with change processing.

Change Processing: Before

Before change processing

- An order is placed.
- An orchestration process is assigned to each order line and is launched. The orchestration process for one of the lines contains these steps:
 - Create Scheduling
 - Create Reservation
 - Create Shipping
 - Wait for Shipping
 - Create Billing
 - Wait for Billing



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To see how the components of change management work together, consider this example:

A manager at Vision Corporation wants to buy gym bags with the company logo for her 12 employees. She wants to offer a variety of colors. She places an order at the internal purchasing site for 12 bags.

The order header has the following change management settings:

- Change mode=Advanced
- Use transactional item attributes=Yes
- Order Attributes That Identify Change include Ordered Quantity, Demand Class Code, and Requested Ship Date
- Cost of change=If the fulfillment line status value is Reserved, then the cost of change is 15, which is low. If the fulfillment line status value is Shipped, then the cost of change is 100.

The order contains these order lines:

- Sales Order Line 1: 4 red
- Sales Order Line 2: 4 navy blue
- Sales Order Line 3: 4 black

Each of these orchestration order lines corresponds to a fulfillment line, as follows:

- Fulfillment Line 1: 4 red
- Fulfillment Line 2: 4 navy blue
- Fulfillment Line 3: 4 black

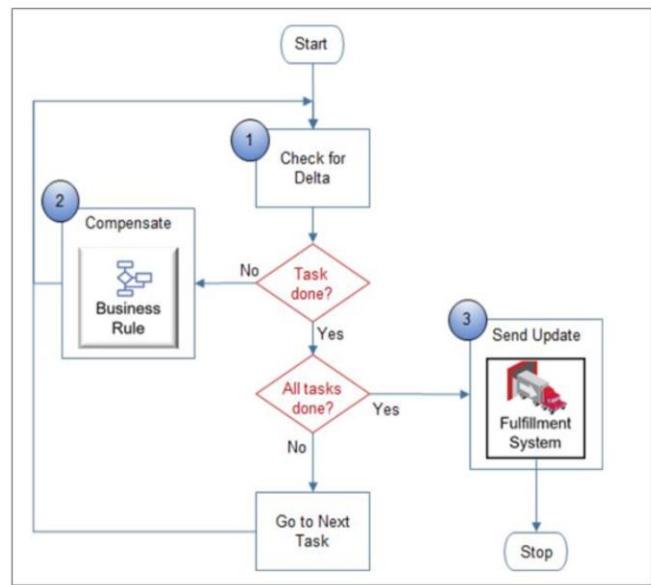
An orchestration process is assigned to each fulfillment line, as indicated in the slide.

Change Processing: How It Works

Order entry specialist submits a change order for the customer.

1. Check for delta

- a) Order Management runs the orchestration process again to determine the difference between the original order and the changed order.
- b) Processing constraints are evaluated at:
 - i. Header, mostly to determine whether the order is closed.
 - ii. Line. Here, the customer changed the ordered quantity, and Ordered Quantity is a change attribute. Therefore, compensation is triggered.



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Within one day of placing the order, one employee resigns and another is transferred to another division of the company. The manager phones the customer service number. She tells the order entry specialist that she wants to change the order to fewer bags, and she wants beige bags instead of navy blue ones. The order entry specialist searches for the existing order. The fulfillment lines are currently on the Create Shipping step.

The order entry specialist submits a change order with these order lines:

- Sales Order Line 1: 3 red
- Sales Order Line 2: 3 beige
- Sales Order Line 3: 4 black

Processing constraints: Default line processing constraints prohibit certain actions, such as updating an order line if the fulfillment line status is Shipped. Only one day passed since the order was placed, so the orchestration process hasn't been shipped yet. Therefore, the change is allowed.

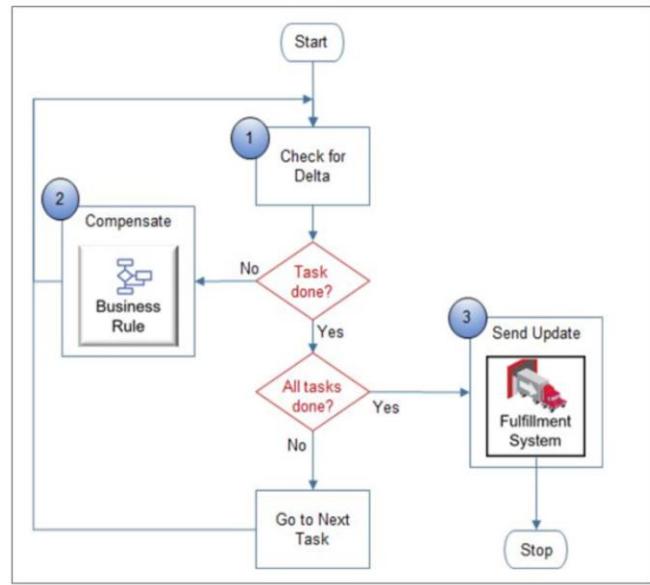
Note: Imported orders are decomposed just as a new order is, at which time items are transformed and an orchestration process is assigned to the change order.

Change Processing: How It Works

The transactional item attributes option is selected, so the application examines these attributes for changes by comparing the changed order to the original. Color is one such attribute, so the color change also would have triggered compensation.

2. Compensate

- a) Create Scheduling step is compensated. Most steps of the orchestration process don't have a compensation pattern, so the default behavior, Update, is used. The Create Scheduling step is canceled and created again. Order promising checks availability, planning is run, and the steps are assigned to new dates.

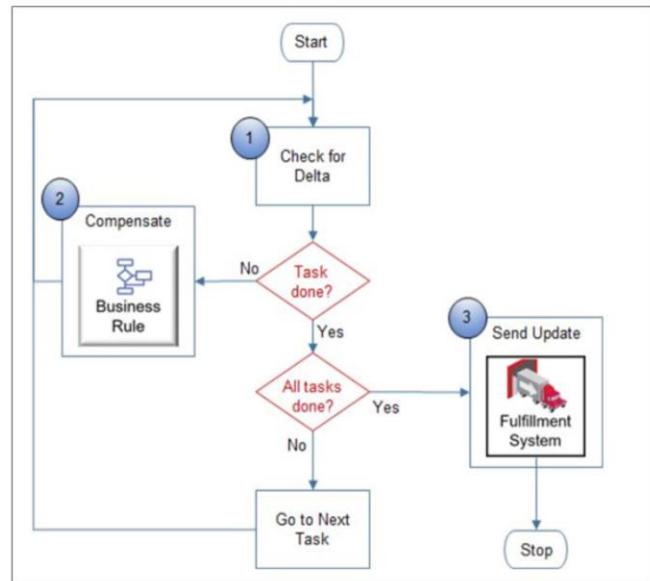


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This slide discusses evaluation of transactional item attributes and compensation.

Change Processing: How It Works

- b) Create Reservation step is compensated. The assigned orchestration process has a specific compensation rule for the Create Reservation step. The rule is: If DemandClassCode isn't gold, then redo (cancel and create) the step. This means that for all customers except high priority ones, supply is released and the reservation is created again. The Create Reservation step is updated with the new dates. The reserved quantity is updated.
- c) Create Shipping step is compensated by updating it with the dates and new item.
- d) Compensation ends. The orchestration process is now where it was when the change order was submitted.

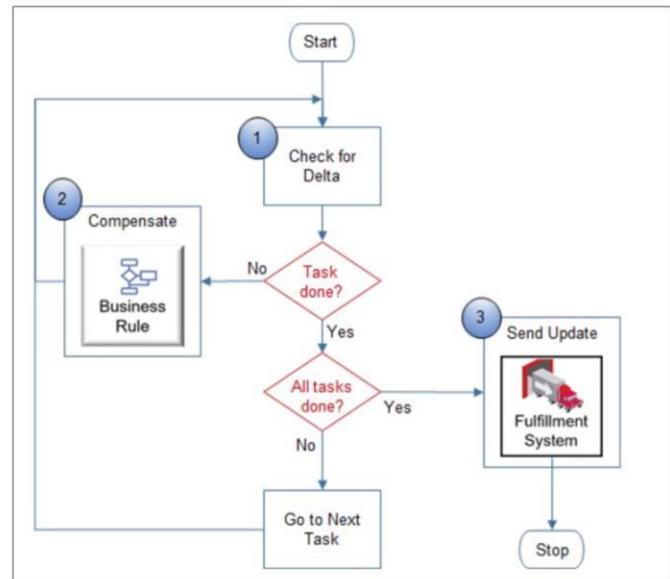


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This slide discusses the compensation process.

Change Processing: How It Works

3. Order Management sends updates to the fulfillment system for each task. If the changed attribute doesn't affect the task, then the orchestration process applies the attribute change to the sales order but doesn't send an update to the fulfillment system.



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Note: After a change is triggered, the corresponding update message is sent to each of the external systems to update the original message with the new changed order (changed attributes). For example, assume the following:

Original inventory – quantity=5

Arrival Date=18Aug15

The change order may trigger an UpdateInventory message with new modified attributes (example: Quantity=10, Arrival Date=18Aug15).

Summary

In this lesson, you should have learned how to:

- Submit a change order
- Explain compensation



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Setting Up Change Order Processing

Part 4: Revising Orders

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	50 minutes	Lecture and Demo
	15 minutes	Practice
	65 minutes	Total

Learning Objectives

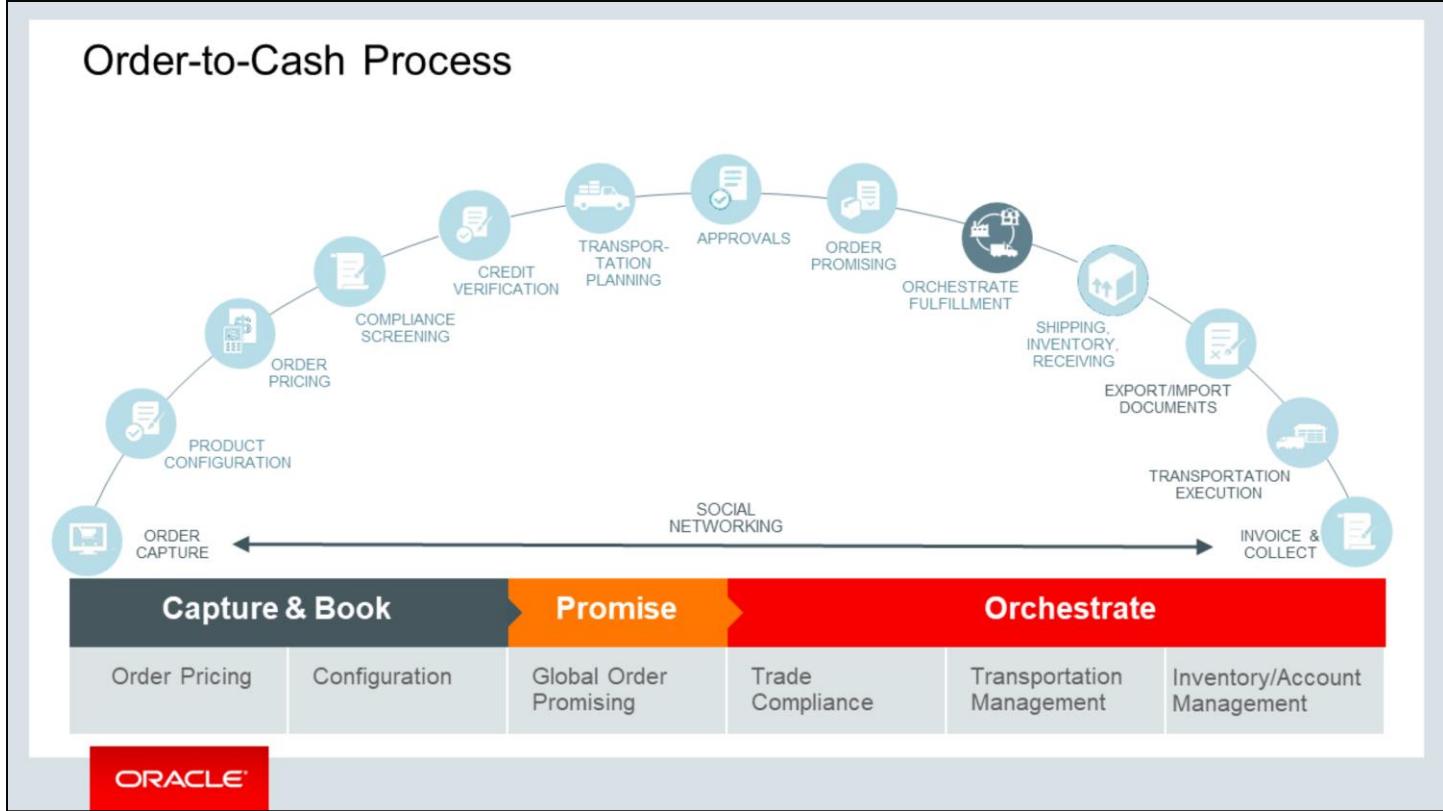


After you complete this lesson, you should be able to:

- List some setup steps of change order processing
- Explain the purpose of processing constraints
- Define order attributes that identify change (change attributes)
- Configure compensation

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Order-to-Cash Process

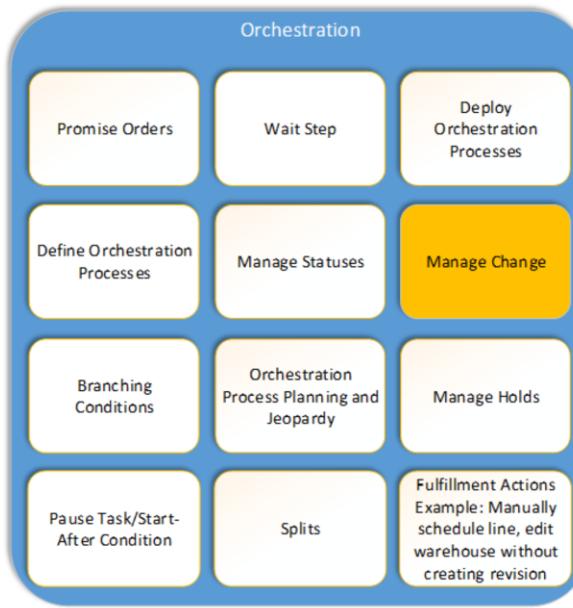


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Order Management is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on change management.

Change Order Processing



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Change management is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning and jeopardy management
- Fulfillment line splits
- Jeopardy management
- Deploy orchestration process
- Hold management

Change Management Setup: Overview

All these areas play a role in change management. They come with default behavior, but you can make changes to suit your organization's needs.

- Processing constraints: Determine who can make changes, what kinds of changes can be made, and when in the process the change can be made.
- Compare Change Order to Fulfillment Values: Parameter that allows a web service or file-based data import to change fulfillment line values even after the Order Entry Specialist revises the sales order in the Order Management work area.
- Order attributes that identify change: Also known as change attributes. When a change to one such attribute is detected, compensation is triggered.
- Change management attributes on the orchestration process: Certain attributes that pertain to change processing appear on the orchestration process definition.
- Compensation pattern (rule): Rule that governs how a step of the orchestration process is compensated.

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Here's a summary of the ways you can control change processing.

Topics

- Change Management and Processing Constraints
- Compare Change Order to Fulfillment Values
- Change Management Attributes on the Orchestration Process Definition
- Order Attributes That Identify Change (Change Attributes)
- Compensation



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Change Management and Processing Constraints

The screenshot shows the Oracle Order Management interface. At the top, there's a header bar with buttons for 'Save', 'Save and Close', and 'Cancel'. Below the header, the title 'Edit Order Attributes That Identify Change' is displayed. The main area is divided into two sections: 'Orchestration Components' and 'Order Fulfillment Line: Attributes'. The 'Orchestration Components' section lists entities like 'Order Fulfillment Line', 'Order Line', and 'Order Header' with their descriptions. The 'Order Fulfillment Line: Attributes' section lists attributes such as 'Scheduled Ship Date', 'Shipping Mode of Transport', and 'Ship-to Contact ID'. A detailed view of the 'Order Fulfillment Generic Process' is shown, including fields like 'Cost of Change Rule', 'Effective Start Date' (set to 1/10/14), 'Effective End Date', 'Status Catalog' (set to 'Change Mode Advanced'), and 'Attachments' (set to 'None'). Callout boxes with arrows point from the text to specific parts of the interface: one arrow points to the 'Orchestration Components' section with the label 'Task-specific parameters for all processes'; another arrow points to the 'Order Fulfillment Line: Attributes' section with the label 'Orchestration process-specific parameters'. The Oracle logo is located at the bottom left of the interface.

This screenshot depicts the Edit Order Attributes That Identify Change page and indicates that the Order Fulfillment Line: Attributes area contains both task-specific parameters for all orchestration processes and parameters that are specific to an orchestration process.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Order Attributes That Identify Change task. Select the task in the **Orders** functional area.
4. On the **Manage Order Attributes That Identify Change** page, click the **Edit** icon.

Change Management and Processing Constraints

Processing constraints aren't part of change management, but they can influence change management because part of their function is to prevent changes that violate the business rules of the company.

* Constraint Name	* Display Name	* Constraint Entity	* Constrained Operation	Attribute Name	* On Operation Action	Applicable Roles	Enabled	Predefined
DOO_FULFILLMENTLINE_SUPPLIER_SITE_UPDATE	Fulfillment Line Supplier Site Update	Order Fulfillment Line	Update	Supplier site	Not allowed	All roles	<input checked="" type="checkbox"/>	✓
DOO_SUPPLIER_SITE_CHANGE	Change Supplier Site	Order Fulfillment Line	Update	Supplier site	Not allowed	All roles	<input checked="" type="checkbox"/>	✓
DOO_FULFILLMENTLINE_SUPPLIER_UPDATE	Fulfillment Line Supplier Update	Order Fulfillment Line	Update	Supplier	Not allowed	All roles	<input checked="" type="checkbox"/>	✓
DOO_SUPPLIER_CHANGE	Change Supplier	Order Fulfillment Line	Update	Supplier	Not allowed	All roles	<input checked="" type="checkbox"/>	✓
DOO_FULFILLMENT_LINE_SUBINVENTORY_UPDATE	Fulfillment Line Subinventory Update	Order Fulfillment Line	Update	SubInventory	Not allowed	All roles	<input checked="" type="checkbox"/>	✓

Fulfillment Line Supplier Update: Details

Conditions	Applicable Roles						
Actions ▾ View ▾ Format ▾ + X Freeze Wrap							
* Group Number	* Validation Entity	Invert Validation Rule Set	* Validation Rule Set	* Scope	* Record Set	* Message	Enabled
10	Order Fulfillment Line	—	Fulfillment Lines Were Shipped	Any	Fulfillment Line Default Record Set	The supplier cannot be updated because the fulfillment line was shipped.	<input checked="" type="checkbox"/>
20	Order Fulfillment Line	—	Fulfillment Lines Were Billed	Any	Fulfillment Line Default Record Set	The supplier cannot be updated because a request to invoice the line was created.	<input checked="" type="checkbox"/>

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This screenshot shows a processing constraint that prohibits any user from submitting a change order with an update to the supplier attribute after the fulfillment line is shipped.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Order Attributes That Identify Change** task.

Topics

- Change Management and Processing Constraints
- Compare Change Order to Fulfillment Values
- Change Management Attributes on the Orchestration Process Definition
- Order Attributes That Identify Change (Change Attributes)
- Compensation



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Compare Change Order to Fulfillment Values

Use this parameter to allow a web service or file-based data import to change fulfillment line values even after the Order Entry Specialist revises the sales order in the Order Management work area.

If you set this parameter to Yes, then Order Management:

- Compares attribute values in the revision to attribute values in the import data to determine whether the user revised the order
- Replaces a user's revisions with values from the imported data



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This parameter, and all order management parameters, affect behavior across Order Management Cloud.

Compare Change Order to Fulfillment Values

If you plan to use this parameter, then:

- Make sure your import data includes values for attributes the user didn't revise. You must get these values from the orchestration process that's currently processing the order.
- Use the `getOrderDetails` operation of web service Order Information Service or use Oracle Transactional Business Intelligence (OTBI) to get attribute values from the sales order that Order Management is currently processing. Create a new payload for the order revision, change attribute values in the payload to reflect the revision, then send the payload to Order Management.

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Set the value for this parameter only one time. For example, if you set it to Yes during set up, then don't set it to No after you deploy your setup.

Topics

- Change Management and Processing Constraints
- Compare Change Order to Fulfillment Values
- **Change Management Attributes on the Orchestration Process Definition**
- Order Attributes That Identify Change (Change Attributes)
- Compensation



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Change Management Attributes on the Orchestration Process Definition

The screenshot shows the Oracle Order Management interface for defining an orchestration process. At the top, there's a header with fields like 'Process Name' (OUStandardOrdersProcess01), 'Version' (1), 'Cost of Change Rule' (Click for Rule), and 'Status' (New). To the right of these are several checkboxes: 'Parent process', 'Use flexfield attributes', 'Use transactional item attributes', and 'Replan instantly'. Below this is the 'Additional Information' section, which includes the 'Process Details' tab. This tab contains a table of steps with columns for Step Number, Step Name, Lead-Time UOM, Lead-Time Expression, Next Expected Task Status, Update Service, Cancel Service, and three checkboxes under 'Change Management': 'Use Transactional Item Attributes', 'Use Flexfield Attributes', and 'Compensation Pattern'. A callout bubble labeled 'Global parameters' points to the header area, and another labeled 'Orchestration process-specific parameters' points to the 'Step Definition' tab.

These change management settings are specific to an orchestration process:

- Change mode: This selection determines how often a snapshot of the orchestration process state is taken. Options are:
 - None: Change isn't allowed.
 - Simple: A snapshot is taken at the beginning of the orchestration process and when a change order is received.
 - Advanced: A snapshot of the state of the orchestration process is taken at each step of the process.
 Advanced mode occupies more server space with the multiple snapshots, but performance is optimized in this mode. Unless server space is an issue, leave change mode set to Advanced.
- Cost of change: Cost of change is a rule that generates a value that an order capture user can consider to determine whether to submit a change order. Cost of change is visible to the order capture system through the use of the Get Orchestration Order Service web service. The order capture system may have some logic to prevent submission of a change order based on a cost of change value. A cost of change rule might be written like this: If the fulfillment line status value is Reserved, then the cost of change is 40. Cost of change is not viewable in Order Management. The value isn't saved.

The screenshot in the slide shows global change parameters, which appear in the orchestration process definition header. Additional change management parameters appear in the Step Definition tab of the orchestration process definition. These change parameters pertain to the selected orchestration process only.

Use Transactional Item Attributes:

If you select this option at the orchestration process header, then transactional item attributes are used to determine whether compensation is needed. Transactional item attributes are characteristics of the ordered item. In contrast, attributes in Order Management pertain to the line. Examples of transactional item attributes are color and size. If you select transactional item attributes at the step level, then during compensation the attributes determine whether a step requires compensation.

Use Flexfield Attributes:

If you select this option at the orchestration process header, then extensible flexfield attributes are used to determine whether compensation is needed. If you select flexfield attributes at the step level, then during compensation the attributes determine whether a step needs compensation.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the **Manage Orchestration Process Definitions** task. Select the task in the **Orders** functional area.
4. On the **Manage Orchestration Process Definition** page, click the **Create** icon.

Topics

- Change Management and Processing Constraints
- Compare Change Order to Fulfillment Values
- Change Management Attributes on the Orchestration Process Definition
- **Order Attributes That Identify Change (Change Attributes)**
- Compensation



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Order Attributes That Identify Change (Change Attributes)

The screenshot shows the Oracle Order Management interface with the following sections:

- Task Type**: Shows tabs for "Task Type" and "Schedule".
- Orchestration Components**: A table with columns "Entity Name" and "Description".

Entity Name	Description
Order Fulfillment Line	Fulfillment Line
Order Line	Orchestration Order Line
Order Header	Orchestration Order
- Order Fulfillment Line: Attributes**: A table with columns "Name", "Description", and "Predefined".

Name	Description	Predefined
Carrier ID		✓
Demand Class Code		✓
Ordered Quantity		✓

Annotations with callouts point to the "Task Type" tab, the "Data Object" row in the components table, and the "Predefined" column in the attributes table.

Change Attributes

Some changes don't require compensation. For example, an order entry specialist submits a change order with an updated Sold-to Contact ID when an orchestration process is on the Ship Goods step. The changed Sold-to Contact ID doesn't affect the orchestration process in any way, so compensation isn't necessary. However, you may want to trigger compensation when a change to an attribute as significant as Inventory Item ID arrives when the orchestration process is on a shipping task. Order attributes that identify change, also known as change attributes, are the attributes that, if changed by order capture or an Order Orchestration work area user, trigger compensation. You designate these attributes on the Manage Order Attributes That Identify Change page. Some attributes are selected by default. You can't remove them, but you can add more.

This screenshot shows the Edit Order Attributes That Identify Change page and indicates the task type designation, the data objects in the Orchestration Components area, and attributes affected by the change in the Order Fulfillment Line: Attributes area.

Navigation:

1. From the **Navigator**, select **Others**, and then click **Setup and Maintenance**.
2. In the **Setup and Maintenance** work area, select the Order Management offering.
3. Search for the Manage Orchestration Process Definitions task. Select the task in the **Orders** functional area.
4. On the **Manage Order Attributes That Identify Change** page, click the **Create** icon.

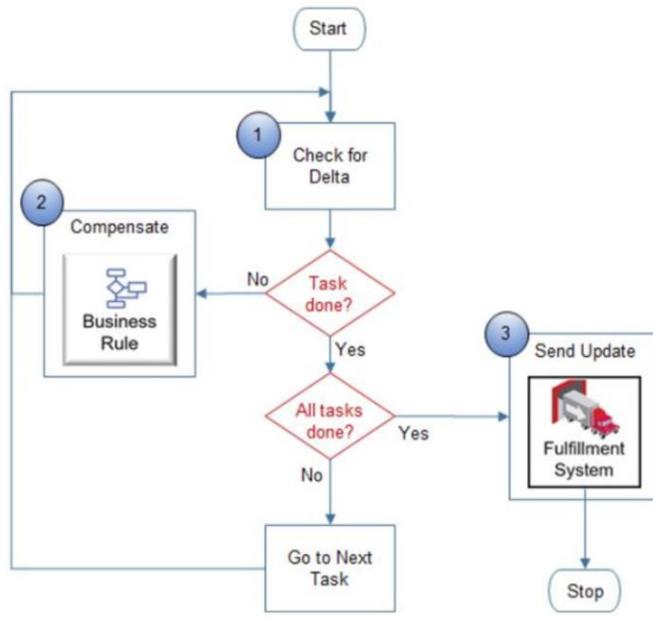
Topics

- Change Management and Processing Constraints
- Compare Change Order to Fulfillment Values
- Change Management Attributes on the Orchestration Process Definition
- Order Attributes That Identify Change (Change Attributes)
- Compensation



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Compensation



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Compensation:

You can control how changes are handled by the orchestration process. When you define an orchestration process, you can designate how changes are compensated. Compensation refers to how the orchestration process is adjusted to respond to the change. By default, each step is compensated by updating it with the new information from the change order. You can override this default behavior by specifying a compensation pattern for a particular step.

Compensation Pattern:

A compensation pattern is a rule that governs how a single step is compensated.

Demonstration: 31-1

- Managing Order Attributes That Identify Change



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Demonstration: 31-2

- Creating a Compensation Pattern



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Practice

- 31-1: Creating a Compensation Pattern

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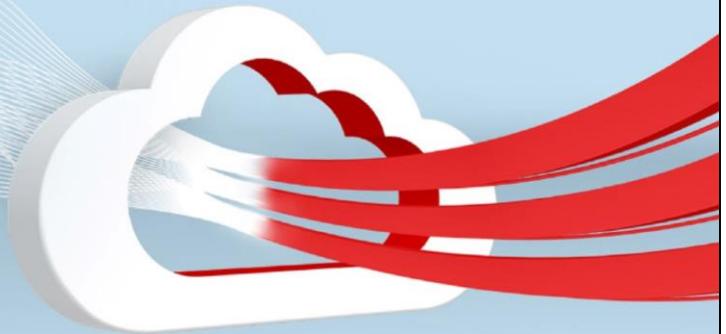
Summary

In this lesson, you should have learned how to:

- Define order attributes that identify change
- Explain compensation



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Managing Holds

Part 6: Managing Holds on Order Processing

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	35 minutes	Lecture and Demo
	NA	Practice
	35 minutes	Total

Learning Objectives

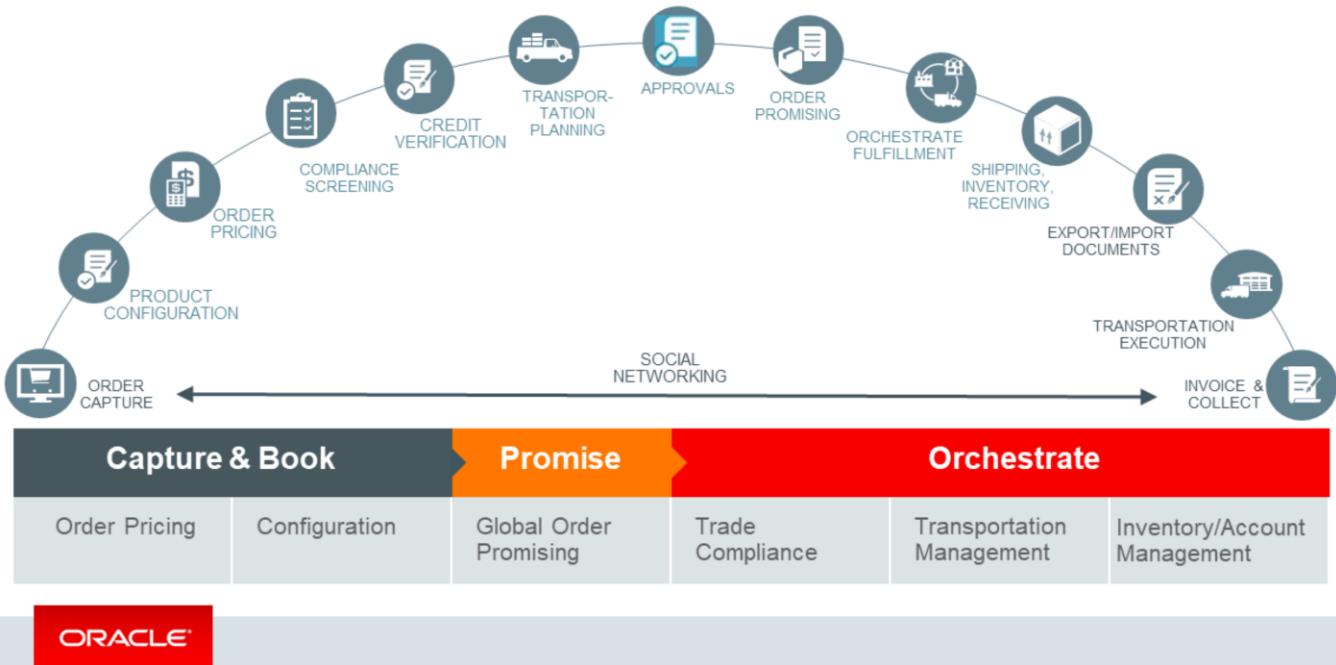


After you complete this lesson, you should be able to:

- Describe how holds are used
- Explain, at a high level, how holds are set up.
- Define a hold code

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Order-to-Cash Process

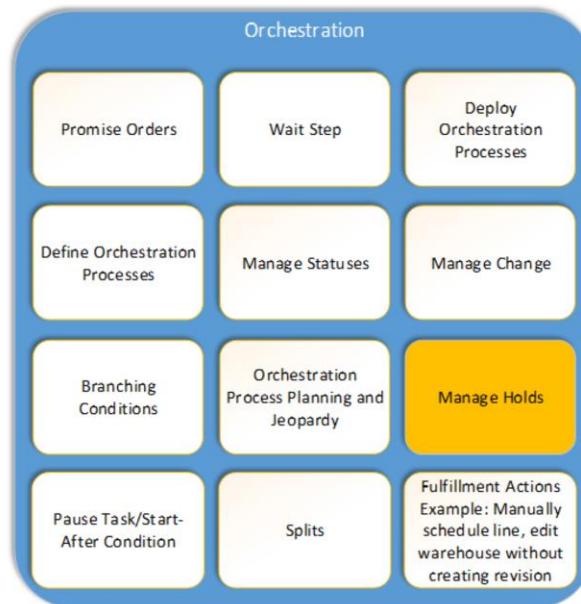


The above graphic illustrates the full breadth of functionality provided by the order-to-cash flow. This functionality is available when Oracle Order Management Cloud is integrated with other Oracle Fusion SCM applications. Note that credit, transport, and compliance screening can happen at the same time as submission, as well as during fulfillment. We offer prebuilt integrations to the applications shown here to make the order-to-cash functionality possible.

In this course, we refer to a certain subset of these applications when we talk about the order management and fulfillment flow. Then we discuss upstream and downstream applications that are integrated.

In this lesson, we focus on holds.

Managing Holds



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Hold management is part of enabling the orchestration of orders. As indicated in the graphic, orchestration also includes:

- Order promising
- Orchestration process definition
- Branching conditions
- Pause tasks
- Wait steps
- Status management
- Orchestration process planning
- Fulfillment line splits
- Jeopardy management
- Change management

Topics

- Holds: Introduction
- Applying Holds
- Releasing Holds
- Setting Up Holds



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Holds in Order Management

The screenshot shows the 'Manage Orders' page in Oracle Order Management. At the top, there is a search bar with various filters like 'Keyword Starts with', 'Source Order Starts with', 'Order Starts with', 'Customer Starts with', 'Customer Registry ID Starts with', 'Status Equals', 'Total Greater than or equal to', and 'Bill-to Customer Equals'. Below the search bar is a 'Search Results' table with columns: Exception Type, Ordered Date, Order, Revision, Status, Customer, Source Order, Total, and Bill-to Account. The table contains four rows of data. A callout box points to the first row's 'Exception Type' column, which contains three small icons: a blue circle with a white exclamation mark, a red circle with a white exclamation mark, and a red circle with a white minus sign. This indicates a 'Runtime hold indicator' for that specific order.

Exception Type	Ordered Date	Order	Revision	Status	Customer	Source Order	Total	Bill-to Account
!	3/18/16 3:41 PM	69263	1	Processing	Computer Service and Rentals (10060)	69263	2,438.00 USD	10060
!	4/20/16 5:07 PM	71263	1	Processing	Computer Service and Rentals (10060)	71263	689.00 USD	10060
!	4/21/16 4:12 PM	73264	1	Processing	Computer Service and Rentals (10060)	73264	44,456.40 USD	10060
	4/21/16 8:25 PM	76263	1	Processing	Computer Service and Rentals (10060)	76263	689.00 USD	10060

Order Management uses holds to help manage order fulfillment. Holds prevent an orchestration process from proceeding by temporarily stopping an action that's currently running on a business object or business service that an orchestration process references. You can also hold scheduled future tasks.

The Hold Source System attribute displays the location of where the hold was applied.

If a fulfillment line includes a hold, and if the orchestration process that this fulfillment line references hasn't yet reached the step that includes the hold, then Order Management might continue to run this process until it reaches the step that includes the hold.

If a fulfillment line includes a hold that Order Management hasn't released, then Order Management displays it as an active hold even if this line doesn't include an active hold.

The screenshot in the slide shows a hold icon next to an order on the Manage Orders page. The hold indicator is in the Exception Type column.

Navigation:

1. From the **Navigator**, select **Order Management**, and then click **Order Management**.
2. On the **Overview** page, select **Manage Orders** from the **Tasks** menu.
3. On the **Manage Orders** page, search for order does not contain X, and then click the **Search** button.

Topics

- Holds: Introduction
- Applying Holds
- Releasing Holds
- Setting Up Holds



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Applying Holds Manually

- Apply to:
 - Order
 - Order line
 - Fulfillment line
- When you apply a hold to a model or shipment set, the hold applies to all levels.
- Define role-based use of holds
 - Determine which users can apply and release holds.
 - Authorize only certain user roles to apply and release specific types of holds.



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The points in this slide concern applying holds manually.

Models and Shipment Sets:

Order Management treats models and shipment sets as single units, so holds apply to all levels.

Role-Based Access:

You might want to define role-based holds access if you want to limit this activity to users with specialized knowledge or authority to make these decisions.

You don't have to create role-based authorization. By default, all roles can apply and release holds.

Applying Holds Automatically

Order Management applies a hold automatically under certain circumstances:

- Credit check
- When a change from the Order Management work area requires Order Management to compensate the orchestration process
- When a source order includes a hold. In this case, Order Management includes this hold on the fulfillment lines that it maps to the sales order.
- When a fulfillment line that has a hold is split. In this case, Order Management automatically applies a hold to each of the lines that result from the split.



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When a change requires Order Management to compensate the orchestration process, Order Management sends a message to the fulfillment system to apply a hold so that fulfillment stops while Order Management compensates the orchestration process.

An orchestration process can automatically apply a hold only when a hold request already exists in Order Management, in the source system, or in the fulfillment system. For example, assume an orchestration process is at the scheduling step when a source system sends a request to hold the shipping task. Order Management stores the request until the orchestration process reaches the shipping step. It then searches for existing requests, and then applies them.

Topics

- Holds: Introduction
- Applying Holds
- Releasing Holds
- Setting Up Holds



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Releasing Holds Manually

- You can release a hold
 - Applied in Order Management in the Order Management work area only
 - In any channel irrespective of the channel where it was applied originally, as long as your role has the privileges. **Note:** The exception is credit check hold. You can release it in the Order Management work area only.
- Unless you cancel an orchestration process, you must manually release each hold and provide a release reason
- Remember that you must have the appropriate privilege to release holds



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The points in this slide concern releasing holds manually.

- Header-level holds: You can apply them using web services and release them from the Order management work area and vice versa.
- Line-level holds: You can apply them using web services and release them only from the Order Management work area - Fulfillment view – Order lines tab and vice versa.
- Fulfillment-level holds: You can apply them in the Order Management work area – View Order and Fulfillment view – Fulfillment lines tab. You can release them only from the View Order and Fulfillment view – Fulfillment lines tab.
- Because Order Capture doesn't understand or support fulfillment lines, you can't apply holds to these types of lines using web services.

Releasing Holds Automatically

Order Management releases a hold automatically under certain circumstances:

- After Order Management finishes compensating for a change to the order
- After you cancel an orchestration process. In this case, Order Management automatically releases any holds that reference this process
- After credit check case folder is approved in Oracle Fusion Credit Management



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An orchestration process can release a hold that you apply in Order Management only in the Order Management work area.

For information on releasing a credit hold, see SCM – Implementing Credit Check in Order Management Cloud, <http://ora-fusion-apps.custhelp.com/euf/assets/fusion/videos/replays/253419/video/presentation.html>.

Topics

- Holds: Introduction
- Applying Holds
- Releasing Holds
- Setting Up Holds



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Setting Up Hold Codes

The screenshot shows the Oracle Order Management interface. At the top, there's a navigation bar with 'Actions', 'View', 'Format', and other standard options. Below it is a table titled 'Manage Hold Definitions' with columns: 'Code', 'Name', 'Description', 'Start Date', 'End Date', 'Hold All Services', 'Predefined', 'In Use', and 'Set'. Six rows of data are listed, each representing a different hold code with its details. Below the table, a specific hold code ('Hold for Export Compliance') is selected, and a detailed view is shown with tabs for 'Services' and 'Applicable Roles'. The 'Services' tab lists a single entry: 'Shipment' under 'Task Type' and 'Create Shipping' under 'Service Name'. The 'Applicable Roles' tab is currently inactive.

Hold codes are used to hold processing. Holds are role-based and set-enabled, meaning you can limit holds to users with certain roles and by the business unit they belong to.

A set provides a way to organize business units and control the business units that can access a hold code.

Set up hold codes on the Manage Hold Definitions page. On this page, you can:

- Define date-enabled hold codes.
- Assign a set. Sets can be referenced by business units.
- Make holds general, or you can make them task-specific and service-specific.

Define hold release reasons on the Manage Standard Lookups page. Search for the lookup code DOO_HLD_RELEASE_REASON.

Navigation:

1. From the **Navigator**, select **Others**, and then select **Setup and Maintenance**.
2. On the **Setup and Maintenance** page, select the Order Management offering.
3. Select the **Manage Hold Codes** task.

Demonstration: 32-1

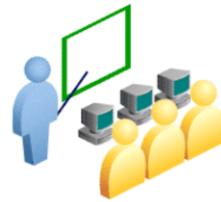
- Creating a Hold Code



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Demonstration: 32-2

- Creating a Hold Release Reason



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Summary

In this lesson, you should have learned how to:

- Describe how holds are used in Order Management Cloud
- Explain, at a high level, how holds are set up
- Define a hold code



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Understanding External Integration

Part 7: Integrating with External Applications

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	25 minutes	Lecture
	25 minutes	Practice
	50 minutes	Total

Learning Objectives



After you complete this lesson, you should be able to:

- Register connector information
- Explain the purpose of Oracle Integration Cloud Service
- Create external interface routing rules
- Associate business event trigger points
- Explain the purpose of the Fulfill Order and Custom task types

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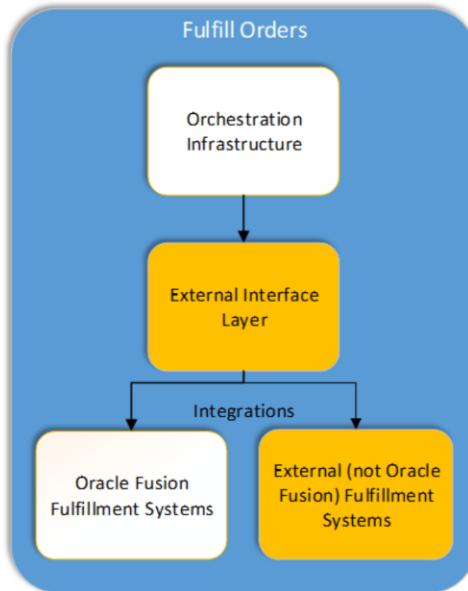
Topics

- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- External Interface Routing Rules
- Business Event Notification
- Fulfill Order Task Layer
- Custom Task Layer



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External Integration: Introduction



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You can integrate Oracle Order Management Cloud on the front end with one or more order capture systems and on the back end with one or more fulfillment systems. The external interface layer contains the services and rules that route requests from Order Management to the correct fulfillment systems and conveys messages back from those systems. The external interface layer uses an extensible SOA-enabled framework to manage communication between Order Management and external fulfillment systems and transforms the requests from those systems. The external interface layer makes it possible to “plug and play” external systems by abstracting them from the orchestration process definition to minimize changes that are required when you add new fulfillment systems.

These tasks involve setup of the external interface layer:

- Manage Integration with Oracle Fusion Order Management
- Manage External Interface Transformation Style Sheets
- Manage External Interface Web Service Details
- Manage External Interface Routing Rules

The Manage External Interface Transformation Style Sheets are required only for external systems (those other than Oracle Fusion). Perform setup in Oracle JDeveloper or in a third-party extensible stylesheet language transformation (XSLT) editor.

Follow these setup steps to integrate external systems with Order Management:

1. Ask your IT department to create a connector service.
2. If transformation is needed, then ask your IT department to create an XSLT transformation file.
3. Ask your IT department to deploy the connector service.
4. Register the connector service on the Manage Web Service Details page.
5. Create routing rules.

Managing Integration with Order Management

This task involves creating and deploying connectors and other artifacts that:

- Transform messages
- Communicate with external systems (additional setup not required for Oracle Fusion systems)

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Web services are used to integrate external applications with Order Management. Order Management has a web service broker that routes requests from the fulfillment task layer to one or more fulfillment systems and vice versa. You need to create, deploy, and register a connector for each integrated external system that supports the enterprise business objects and associated operations.

Ask your IT department to create and deploy a connector service. If transformation is needed, then ask your IT department to create an XSLT transformation file.

Topics

- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- External Interface Routing Rules
- Business Event Notification
- Fulfill Order Task Layer
- Custom Task Layer



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Managing External Interface Web Service Details

- After you create and deploy connectors, register them on the Manage Connector Details page.
- Provide:
 - Connector name
 - Connector description
 - URL
 - Username
 - Password

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After you create and deploy the connectors, register them on the Manage Web Service Details page.

Provide:

- **Connector Name:** Name of the service
- **Connector Description:** Description of the connector name
- **URL:** Physical location (endpoint) of the service
- **Username:** Name used to log in to the external system
- **Password:** Used to log in to the external system

The password value is protected. The user can't see it. The username and password are passed into a credential store, and a user credential key and keystore recipient alias are generated automatically.

Keystore Recipient Alias: Oracle recommends that you configure servers that are running external web services that must be invoked to advertise the security certificate in the WSDL. The default setting in Oracle WebLogic Server is to advertise the security certificates. Check whether your servers support this feature. If so, then enable the feature. If you can't set up the server this way, then use the keystore recipient alias. Ask the service provider for the security certificate. An IT administrator imports the target server security certificate into the invoking server and provides a reference, which is called a keystore recipient alias.

Register this keystore recipient alias on the Manage Connector Details page against the records created for that system. This key applies to all services that the target system offers. For additional information, refer to white papers or technical documentation.

Note: Your IT department may have to provide some of the information for these parameters.

Topics

- External Integration: Introduction
- Web Service Registration
- **Oracle Integration Cloud Service**
- External Interface Routing Rules
- Business Event Notification
- Fulfill Order Task Layer
- Custom Task Layer



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Oracle Integration Cloud Service

Platform that enables integration between Oracle Cloud applications and external applications using SOAP services and business events exposed by Oracle Cloud applications. Available services and events:

- Services
 - OrderInformationService
 - OrderFulfillmentResponseService
- Events
 - OrderStatusUpdated event
 - SalesOrderNotification event



The drag-and-drop interface streamlines integration and makes it easier for less technical personnel to create business flows.

You can integrate any number of channel systems to Order Management.

You can also set up email notification based on order status events.

- OrderInformationService
 - Creates business flows using intuitive drag-and-drop interface.
 - Creates a flow to fetch complete details about an order.
 - Determines whether an order can be changed before accepting the change.
- OrderStatusUpdated event
 - Creates subscriptions to receive business event notifications from Order Management.
 - Deploys a single web service to receive notifications for header and line status changes.
- SalesOrderNotification event
 - Informs a subscriber about a significant development on a sales order.
 - Occurs when the order status changes, the line status changes, the value of an attribute changes, a fulfillment line splits, or an exception occurs, such as a jeopardy or hold.
- OrderFulfillmentResponseService
 - Receives the acknowledgement and the response to an order fulfillment request from a fulfillment system.

Topics

- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- **External Interface Routing Rules**
- Business Event Notification
- Fulfill Order Task Layer
- Custom Task Layer



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Manage External Interface Routing Rules

- Create rules to route fulfillment requests to appropriate connectors to external fulfillment systems.
- You can use order, fulfillment line, and process definition attributes to select the fulfillment system connectors.
- Use the same name in the selection rule as the one you use when you register the system.
- Create and update these rules on the Manage External Interface Routing Rules page.
Note: The rules are executed in Oracle Business Rules engine.
- No additional setup when integrating with only Oracle Fusion applications:
 - Web service details seeded for Oracle Fusion connectors
 - Seeded rules to route fulfillment requests to Oracle Fusion connectors

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Examples of Routing Rules

- **Task Type Determines Routing of Request:** You want orders that are ready for shipment to go to the shipping fulfillment system. You write an external interface routing rule that requires that if the task type code of an order is Shipment, then route the request to the ABCShippingSystem connector.
- **Customer Attribute Determines Routing of Request:** Your company has two invoicing systems. When it's time to send out an invoice, you want only system ABC to invoice Widget Company. You write an external interface routing rule that requires that if the customer is Widget Company and the task type code is Invoice, then route the request to ABCInvoicingSystem.

For more information, see: SCM – Implementing Order Management Cloud: Tips & Best Practices (Part 5), <https://cloudcustomerconnect.oracle.com/posts/e2485fec2d>

Topics

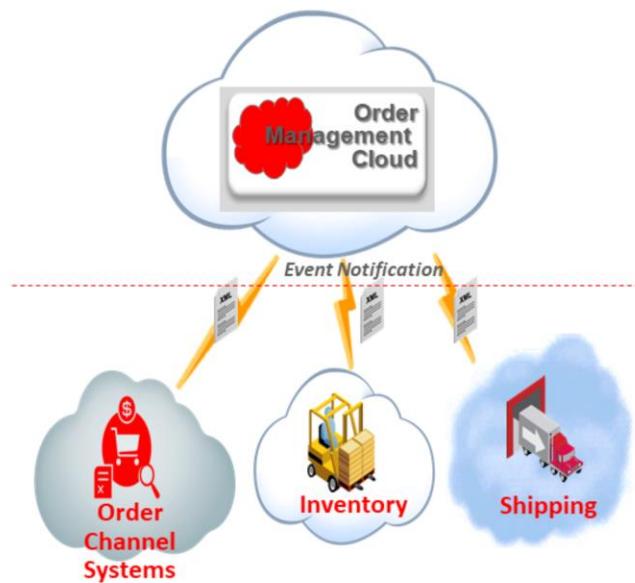
- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- External Interface Routing Rules
- **Business Event Notification**
- Fulfill Order Task Layer
- Custom Task Layer



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Business Event Notification

- One-way notification from Order Management to interested subscribers
- Notification sent when a change occurs that's significant to the subscriber system
- Notification criteria are defined using a setup task



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Use web services are used for both upstream (for example, order channel) and downstream (for example, fulfillment system) integrations with Order Management. However, Order Management uses another pattern of integration that broadcasts events of interest to the systems involved in the order management and fulfillment flow. Order Management has a predefined set of business events that represent significant occurrences in the context of the business process. You determine whether these occurrences are important in the context of your functional and business requirements.

This diagram depicts Order Management sending event notifications to order channel systems, to Inventory, and to Shipping.

Business Event Notification

- Use the Manage Business Event Trigger Points setup task to:
 - Choose the right set of events to be raised at runtime from a preset list.
 - Define very specific criteria for some of the events.
 - Associate appropriate connectors that you already set up by using the Manage External Interface Web Service Details task.
- Configure setup details, which at runtime are used to determine:
 - Whether to raise an event
 - Which connectors to notify when event is raised

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Manage Business Event Trigger Points is the name of the task and page where the predefined business events appear. The set of business events is:

- Change Order Compensation Complete: Informs the subscribing application that change order processing is completed. If a change order results in an error, then this event reports the error.
- Fulfillment Line Status Update: Allows you to specify which of the fulfillment line status values you are interested in on the Edit Status Rule Set page, which is part of the Manage Orchestration Process Definitions task. Select the Notify External System check box next to the value that you want a fulfillment line to achieve to raise an event.
- Fulfillment Line Closed: Informs the subscribing application that a fulfillment line was closed. Systems such as Cost Management can use this information to perform downstream processing on the fulfillment line.
- Hold: Notifies the subscribing application that a hold was applied at the order or line level. An order manager or order entry specialist can apply a hold, or the order capture or channel system can request a hold.
- Jeopardy: Allows you to specify the jeopardy priority values (high, medium, and low) that you want this event to be raised for. When process planning determines a change in jeopardy priority value such that the new value is enabled, this event is raised.
- Order Attribute Update: Allows you to determine whether changes to specific fulfillment line attributes and fulfillment line details attributes, including extended flexfield segments, are of interest to any of the systems, especially your order capture system. You can choose these attributes from among a set of attributes exposed in this task. During order progression, if one or more of the chosen attributes experiences a change, then Order Management raises an event.
- Order Header Status Update: Informs the subscribing application when an order is canceled, partially closed, or closed. Set the status value that you want to trigger the event.
- Split: Notifies the subscribing application that a fulfillment line was split due to a partial shipment or by an integrated application.

For each of these events, you must associate the connectors that you created as part of the Manage External Interface Web Service Details task using the Manage Connector Details page. Recall that you specified the endpoint URL of the web service you want to invoke and security credentials on that page. During the execution of the order fulfillment process in Order Management, the conditions for each of the events mentioned here are monitored. As determined by this setup, when it's appropriate to raise an event, Order Management sends a notification to the endpoint URL for each connector that you associated with the event trigger point in question. For example, if you selected the "Notify External System" check box for the status value "Shipped" whenever a fulfillment line status is set to Shipped, then the endpoint URL of the connectors associated with the Fulfillment Line Status Update event is called.

Topics

- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- External Interface Routing Rules
- Business Event Notification
- **Fulfill Order Task Layer**
- Custom Task Layer



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Fulfill Order Task Layer



- Set of services that enable integration between Order Management and a system that manages enterprise resource planning.
 - Runs multiple fulfillment actions through a single request. Examples: Schedule, ship.
 - Sends an update to the fulfillment system each time Order Management accepts a change order that affects order fulfillment.
 - Receives interim and final status updates from the fulfillment system. Fulfillment Order doesn't send a reply immediately, only when the fulfillment activity runs.
- Can send a request that modifies a sales order that resides in Order Management, and that the fulfillment system uses.
 - Create
 - Update
 - Place hold
 - Release hold
 - Update status
 - Cancel

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For more information, see the help topic, “Actions You Can Set When Routing Requests to Fulfillment Systems: Explained.

Topics

- External Integration: Introduction
- Web Service Registration
- Oracle Integration Cloud Service
- External Interface Routing Rules
- Business Event Notification
- Fulfill Order Task Layer
- Custom Task Layer



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Custom Task Layer



- Web service wrapper that you use to create a new task type while maintaining data integrity in Order Management Cloud. That means that the task type you create appears correctly throughout Order Management.
- You can:
 - Define a new fulfillment task type, fulfillment task, or service that an orchestration process can call.
 - Validate that the service data object includes data for each required attribute.
 - Add processing logic to the outbound request or to the inbound reply for an action that comes predefined with the custom task layer service. You can add logic that defaults data onto the outbound request or that validates the data. For the reply, you can add logic that interprets attributes or messages that the fulfillment system sends that might require split processing.
 - Determine the transaction data to update as a result of the external service call. This data resides in the transaction tables that Order Management uses.

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Example

Let's say that your company offers gift wrapping services. You might want to have a set of services called Gift Wrapping with individual services called Send to Gift Wrapping and Wait for Gift Wrapping.

Practices: Overview

- 33-1: Registering Connectors
- 33-2: Setting Up a Jeopardy Business Event for a Channel System
- 33-3: Creating External Interface Routing Rules in Visual Information Builder

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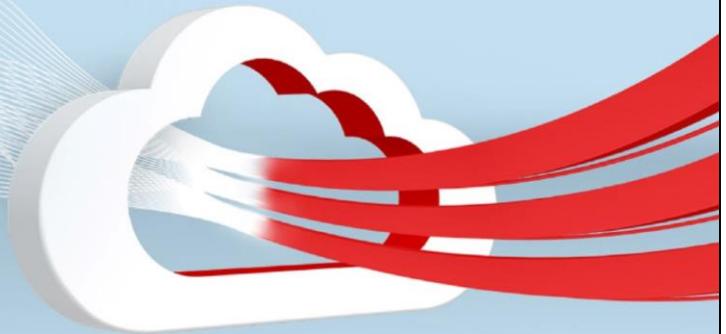
Summary

In this lesson, you should have learned how to:

- Register connector information
- Explain Oracle Integration Cloud Service
- Create external interface routing rules
- Associate business event trigger points



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Conclusion

- Part 9: Conclusion

Order Management and Fulfillment Cloud Implementation

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Schedule:	Timing	Topic
	5 minutes	Lecture
	25 minutes	Practice
	30 minutes	Total

Course Summary

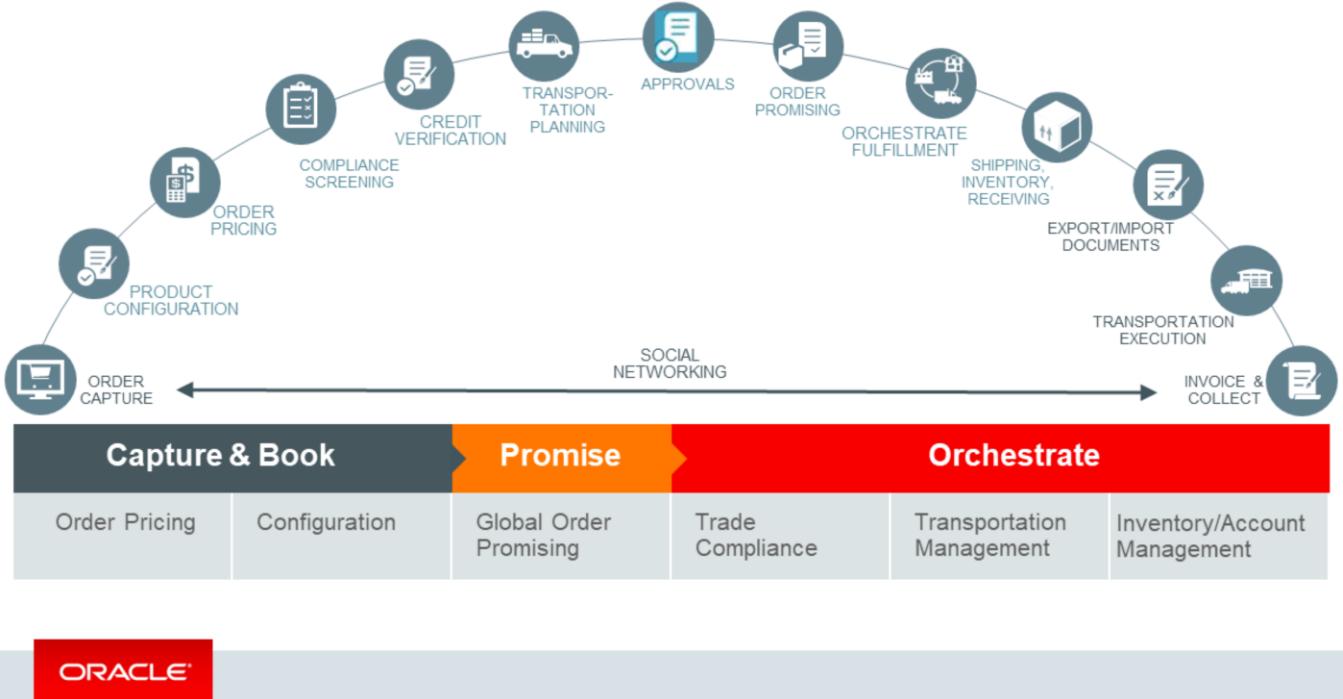
During this course, we introduced:

- Order management and fulfillment process
- Setup of the products that are used to implement the order management and fulfillment process
- Initial order creation, scheduling, pricing, order promising, fulfillment, and shipping



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Order-to-Cash Process



In this course, we discussed the full breadth of functionality provided by the order-to-cash flow, of which the order management and fulfillment process is a part.

We focused on:

- Order Management: Order capture, constraints, holds, approvals, pause, jeopardy
- Configurator: Product configuration
- Pricing: Order pricing, manual adjustments
- Inventory Management: Picking
- Shipping: Shipping, trade compliance, transportation management

You've learned, at a high level, how to implement these applications to enable the flows discussed earlier in this lesson.

Optional Practice: 34-1

- Creating and Submitting a Sales Order for a Standard Item

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You may want perform this optional practice. In this practice, you create and submit a sales order for a standard item.

Optional Practice: 34-2

- Viewing Fulfillment Lines and Orchestration Plan

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In this optional practice, you search for an existing order, navigate to the fulfillment view, and check the orchestration plan for the lines on an order.