# Oracle SCM Cloud
## Using Supply Chain Orchestration

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Preface

This preface introduces information sources that can help you use the application.

Using Oracle Applications

Using Applications Help

Use help icons to access help in the application. If you don’t see any help icons on your page, click your user image or name in the global header and select Show Help Icons. Not all pages have help icons. You can also access Oracle Applications Help.

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- **Community:** Use Oracle Cloud Customer Connect to get information from experts at Oracle, the partner community, and other users.
- **Guides and Videos:** Go to the Oracle Help Center to find guides and videos.
- **Training:** Take courses on Oracle Cloud from Oracle University.

Conventions

The following table explains the text conventions used in this guide.

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates user interface elements, navigation paths, or values you enter or select.</td>
</tr>
<tr>
<td><strong>monospace</strong></td>
<td>Monospace type indicates file, folder, and directory names, code examples, commands, and URLs.</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than symbol separates elements in a navigation path.</td>
</tr>
</tbody>
</table>

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Videos included in this guide are provided as a media alternative for text-based help topics also available in this guide.
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Supply Chain Orchestration: Overview

Oracle Fusion Supply Chain Orchestration provides a business process-based interface to execute and manage complex supply-creation processes across multiple products. You can use Supply Chain Orchestration with applications from the Oracle Applications Cloud, such as Manufacturing, Procurement, and Logistics, to establish consistent and comprehensive supply execution processes.

Using Supply Chain Orchestration, you can:

- Receive supply requests from multiple Oracle Fusion applications, such as Planning Central, Inventory Min/Max Planning, Order Management, and Global Order Promising (GOP).
- Launch and manage complex business processes.
- Automate change management to match supply to demand.
- Observe a 360 degree view of the supply-creation process.
- Create rules for business process management.
- Enable central control and decentralized execution.
- Scale process monitoring and exception management.

Supply Chain Orchestration supports standard business processes to create supply in warehouse and fulfill demands. You can create supply through the predefined Back-to-back (make, buy, or transfer), Contract manufacturing, or Internal Materials Transfer business process.

For demand-specific supply requests, such as back-to-back, Supply Chain Orchestration creates supply request documents by combining the demand details from Oracle Fusion Order Management with the supply suggestion from Global Order Promising (GOP).

Supply Chain Orchestration provides end-to-end visibility into the supply-creation process with status updates. Supplies at risk are characterized as errors, exceptions, and jeopardy. When changes occur in demand or supply, Supply Chain Orchestration uses automated change management to maintain balance of quantity and fulfillment dates. In case of a supply exception, predefined rules reduce excess inventory, and find alternate supply sources. Automated change management is used to manage:

- Changes in supply quantity by supply providers such as manufacturing plants and suppliers.
- Changes in supply completion date by supply providers.
- Changes in demand quantity of a sales order.
- Changes in need-by date of a sales order.
- Cancellation of a sales order, purchase order, transfer order, or work order.
- Splitting of a sales order, purchase order, or transfer order.

Supply Chain Orchestration also provides the ability to access supply execution documents, such as manufacturing work order or purchase order, to identify the cause of supply exceptions. After a supply risk is resolved, it is possible to resubmit a supply order. If a supply risk cannot be resolved, it is possible to cancel the supply flow.

The following process flow diagram provides an overview of the Supply Chain Orchestration application components and processes. The supply requests received from supply requesting applications are directed to the Decomposition component to assign and launch orchestration processes. The Orchestration component executes business processes to manage tasks,
which send requests to execution systems and record the response to provide run-time status. The execution systems process the requests received and update the execution documents. These processes are discussed in detail in a later topic.

### Supply Chain Orchestration Overview

<table>
<thead>
<tr>
<th>Related Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Chain Orchestration Setup: Overview</td>
</tr>
</tbody>
</table>

### Supply Chain Orchestration Components: How They Work Together

The Oracle Supply Chain Orchestration Cloud forms a link between the applications requesting supply and those fulfilling supply.
Supply requests may be received from various applications, such as Planning, Global Order Promising (GOP), Order Management, and Inventory. Supply fulfilling applications can be applications from the Oracle Applications Cloud, such as Purchasing, Manufacturing, Shipping, and Receiving.

Based on the process and actions performed, the Supply Chain Orchestration application components are:

- Decomposition
- Orchestration
- Enterprise Integration Layer (EIL)
- Task Layers

The following table describes the internal processes and actions of the supply chain orchestration components.

<table>
<thead>
<tr>
<th>Supply Chain Orchestration Components</th>
<th>Internal Process</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Requesting Applications</td>
<td>Supply requests received:</td>
<td>Requests recorded in Supply Chain Orchestration interface tables.</td>
</tr>
<tr>
<td></td>
<td>• Planning: Planned recommendations</td>
<td>• Supply Order documents created</td>
</tr>
<tr>
<td></td>
<td>• GOP, OM: Back-to-back orders</td>
<td>• Launches orchestration process</td>
</tr>
<tr>
<td></td>
<td>• Inventory: Internal Transfer Requests for Min/Max replenishment</td>
<td></td>
</tr>
<tr>
<td>Decomposition</td>
<td>Requests are processed:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Reads payloads from the interface table.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Creates a Supply Order document, used by Supply Chain Orchestration to create supply.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Transforms payload attributes to enterprise-specific attributes, if required.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Interprets execution rules to determine if special processing is needed for transfer order requests.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Applies defaulting rules</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Assigns and launches orchestration process. The assigned process determines how supply is created, such as back-to-back or contract manufacturing.</td>
<td></td>
</tr>
<tr>
<td>Orchestration</td>
<td>Orchestrates supply:</td>
<td>Each supply order tracking line sent to task layer for processing.</td>
</tr>
<tr>
<td></td>
<td>• Executes the determined business process.</td>
<td>Enables runtime process viewing</td>
</tr>
<tr>
<td></td>
<td>• Uses business services layer (EIL) to launch tasks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manages the tasks.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manages and calculates cost of change.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Runtime process view.</td>
<td></td>
</tr>
</tbody>
</table>
Oracle SCM Cloud
Using Supply Chain Orchestration

Chapter 1
Introduction

Supply Chain Orchestration Components | Internal Process | Actions
--- | --- | ---
EIL | As part of Orchestration layer, EIL: | N/A

1. Creates payload and invokes appropriate supply execution systems to request services.
2. Supply execution systems notify Supply Chain Orchestration in case of changes. EIL accepts notifications, processes them, and manages exceptions.

Task Layers

1. Identifies target service or execution system that will fulfill current requests.
2. Transforms the data using connectors.

• Send request to execution systems.
• Record status response from execution systems and process downstream tasks.
• Record any exceptions in the execution systems and notify supply requesting applications.

Execution Systems

Execution systems:

- Inventory Transfer Orders
- Inventory Reservations
- Purchasing
- Manufacturing
- Shipping
- Receiving

Processes execution document related to create, cancel, or update requests received from Supply Chain Orchestration task layer.

Creates, updates or cancels supply execution documents in response to Supply Chain Orchestration requests to communicate request status and execution document fulfillment updates.

The various entities that are created and managed during supply orchestration are:

- Supply Order: Contains all supply order lines created to fulfill a specific supply request.
- Supply Order Line: Contains information about individual supply requests.
- Supply Order Tracking Line: The tracking line monitors the process needed to fulfill a supply request with a specific supply type.
- Supply Transfer Order Details: Contains information for transfer supply requests. Captures Transfer Order execution document details from Inventory when the tracking line supply type is Transfer.
- Supply Buy Order Details: Contains information for buy supply requests. Captures Purchase Order execution document details from Purchasing when the tracking line supply type is Buy.
- Supply Make Order Details: Contains information for make supply requests. Captures Work Order execution document details from Manufacturing when the tracking line supply type is Make.

Back-to-back Business Process

In back-to-back fulfillment, a supply request is created only after scheduling of a sales order. It is best suited for items that organizations choose not to stock. It offers organizations the flexibility to expand their product offerings even if they do not directly stock goods.
The essence of a back-to-back flow is a firm link between the demand document (sales order) and the supply document (purchase order, transfer order, or work order). This ensures that supply cannot be allocated incorrectly or diverted to fulfill another demand. The back-to-back flow is effective in ensuring on-time order fulfillment and a higher customer satisfaction.

Fulfillment decisions in back-to-back are controlled centrally. Organizations can designate an item to be back-to-back enabled in Product Information Management and set up sourcing rules in GOP to determine supply creation options. The process provides visibility into demand, supply, and exceptions in the flow.

**Contract Manufacturing Processing**

For contract manufacturing fulfillment, a manufacturing work order is created in the enterprise and a matching purchase order is created in the contract manufacturer.

- The purchase order serves as an agreement between the enterprise and manufacturer.
- The work order in the enterprise is used to track progress of supply in the contract manufacturer’s plant.
- The work order and purchase order documents are linked to ensure that the document parameters and progress are synchronized. This synchronization is facilitated by Supply Chain Orchestration.
- Supply Chain Orchestration provides visibility into the contract manufacturing processes. Automated exception management is used to balance supply and demand, and avoid excess or short supply.

**Outside Processing**

In outside processing, a one or more manufacturing operations in a work order are outsourced to external service providers. The Original Equipment Manufacturers (OEM) handle selective manufacturing operations in-house and outsource some manufacturing operations to one or more external service providers, who are referred to as Manufacturing Partners (MP) and are paid for performing the value-added services.

On receiving an outside processing supply request from Manufacturing cloud, the Supply Chain Orchestration Cloud:

- Initiates purchase requests for the outside processing items.
- Notifies the Manufacturing cloud about the purchase requisition or purchase order details. Attributes include PO Number, PO Line Number, and Supplier.
- Initiates shipment requests for partially finished assemblies (PFAs).
- After confirmation of shipping, notifies the Manufacturing cloud about shipment details.
- Handles automatic change management.
- Tracks and monitors the outside processing operations.

On the Supply Lines Overview page, the supply orders with outsourced manufacturing operations are indicated in the **Outside Processing** column.

**Deviations in Supply Orchestration Process: Explained**

In Supply Chain Orchestration, the supply processes are managed by tracking transactions associated with the supply life-cycle of buy, transfer, and make processes. It provides a complete view of supply request and supply execution status, and indicates any exceptions or potential issues.
Changes or delays may result in deviations in the supply chain orchestration process. Supply side changes that may result in deviations are canceled purchase, work, or transfer orders, items rejected due to quality issues, supplier unable to meet requested quantity or scheduled date, and reserved supply reassigned before shipment.

You can use automated change management to manage the changes in the supply side, and can create and manage alternate supply sources to meet demand. Automated change management supports the splitting of an existing supply tracking line into multiple tracking lines and the creation of parallel flows on a supply chain orchestration process instance for the split supply tracking lines.

For example, consider a buy supply request tracking line for 100 items. A supply request for 100 quantity is sent to a procurement system where a requisition and purchase order (PO) is created. If the procurement system returns the PO with three PO schedules of 50, 30, and 20 quantity, each PO schedule is tracked independently. To support this, the single tracking line of 100 items is split into three supply tracking lines of 50, 30, and 20 items respectively. The three tracking lines are also associated with unique supply orchestration process instances to track each PO schedule. The supply tracking lines are visible in the Supply Overview work area, and exceptions for each tracking line are managed independently.
2 Overview

Supply Lines Work Area: Overview

The Supply Lines Overview page is the landing page or dashboard that gives a comprehensive view of the supply lines being processed and their current status. To access the page, select **Supply Orchestration** in the Oracle Fusion application.

Supply orchestration is tracked and managed at the level of a supply line. The Supply Lines Overview page displays the following:

- The Overview table lists the supply lines being tracked and the exceptions recorded for each. It also indicates the supply lines that are on track. You can choose to display a list view or a hierarchical tree view.
- A sunburst chart depicting deviations by the Make, Buy, Transfer, or Available to Promise supply types.
- An analytics region that uses bar graphs to display supply data and deviations. You can use this view for analysis and optimization of the supply processes.

Supply Lines Overview Analytics: Explained

In the **Supply Lines Overview** page, the **Deviations by Supply Type** and **Current State: Analytics** sections provide visualization of the information in the Overview table.

Deviations by Supply Type

The **Deviations by Supply Type** sunburst chart in the Supply Lines Overview page contains segments that represent the number of supply tracking lines in deviation. By default, the chart represents the deviations for all supply tracking lines displayed in the Overview table.

The Deviations in Supply Type chart displays information at the following levels of granularity:

- Supply order type (Make, Buy, and Transfer)
- Deviation type (Jeopardy, Exceptions, and Errors)
- Deviation classification or reason

When you double-click a deviation type, you can drill down to any level to view more information about each deviation type. You can also click **Detach** to view an expanded view of the chart in a separate page and drill down further. The additional classification or reason that is displayed for each deviation is as follows:

- Jeopardy: Displays the tracking lines that are in the High jeopardy state.
- Exception: Displays the tracking lines in the Supply Date Pushed Out or Quantity Reduced states.
- Error: Displays the tracking lines in the Undefined state.

Current State Analytics

The **Current State: Analytics** section displays the following bar charts:

- **Deviations by Type**: Represents the kinds of deviations and the number of deviations in the open supply orders.
• **On Track by Supply Type**: Compares on-track supply types by organizations. You can identify and analyze the supply type that needs to be managed the most.

• **Status by Supply Type**: Compares Available to promise, Buy, Make, and Transfer supply types by status. You can identify and analyze each supply type by status, for example identify if supply lines are in a status for long or not being processed as expected.

### Supply Lines Status: Explained

Supply orchestration is tracked and managed at the level of a supply line. If a supply line deviates from the expected date or item quantity, it is indicated on the dashboard or the Supply Lines Overview page.

The following table lists the statuses that can be assigned to supply lines based on the severity of change.

<table>
<thead>
<tr>
<th>Supply Line Status</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>Functional errors or technical errors. For example, purchase order not created in Oracle Procurement Cloud because of a missing charge account or because a web service is down.</td>
</tr>
<tr>
<td>Exception</td>
<td>Supply does not meet the requested quantity, the requested date, or both.</td>
</tr>
<tr>
<td>Jeopardy</td>
<td>Supply available after the due date.</td>
</tr>
<tr>
<td>On Track</td>
<td>Requested supply quantity expected on time.</td>
</tr>
</tbody>
</table>

Errors can be resolved using the following options:

- Resubmit: Supply line can be resubmitted for functional and technical errors.
- Mark as Inactive: Supply line can be marked inactive in case of missing or invalid data that cannot be corrected in application.

### What's a Supply Line?

Supply requests are captured as supply lines and supply tracking lines. Supply lines capture key information that identifies the supply request, such as supply source, supply request type, item details, quantity details, and supply status.

### What's a Supply Tracking Line?

Supply requests are captured as supply lines and supply tracking lines. Supply tracking lines capture key attributes and, in addition, also capture the attributes used in the supply request execution.

Attributes used in supply request execution include supply source details (such as organization, subinventory, location, and supplier), requesting source details (such as organization, subinventory, and location), supply dates, and status.
A supply tracking line is created for each supply order. Based on supply changes, more than one supply tracking line may be created for a supply order.

What's the difference between exception and jeopardy?

Exceptions are supply changes that affect quantity or supply dates. For example, a reduction in quantity, date change, or canceled supply.

Jeopardy occurs when supply is delayed beyond its need-by date.

Exceptions and jeopardy can be rectified using automated change management, and resubmitted for processing. Exceptions can also be rectified manually.
3 Managing Supply Lines

Manage Supply Lines: Overview

The Manage Supply Lines page displays detailed information about supply lines. You can use the search section to view the relevant supply lines. For example, you can view all back-to-back supply lines of the Buy supply type by selecting required criteria.

You can access the Manage Supply Lines page from the Supply Line Overview landing page as follows:

- Click the Manage Supply Lines task in the Tasks panel drawer.
- Or click the numbered links under the Current State columns in the Overview table.

In the Manage Supply Lines page, you can further drill down to view details about the supply lines in an order. To do so, click the numbered link under the Supply Order Number column. The Supply Order Details page opens and displays details of all supply lines in the order.

Internal Material Transfers: How They Are Processed in Supply Chain Orchestration

Internal material transfer requests can be within an organization (intra-org) or between two organizations (inter-org). Supply Chain Orchestration manages both intra-org and inter-org internal material transfers.

How Internal Material Transfer Request Is Processed

Internal material transfer requests are processed as follows:

1. Supply requests are received in Supply Chain Orchestration.
2. Supply requests are processed in the decomposition layer, supply orders are created, and the task layer initiates request for creation of transfer order in Inventory.
3. Business rules govern how the internal material transfer request is processed. The document execution rules determine if an internal material transfer request is to be executed using a transfer order or a purchase order. The supply order is processed as a transfer order or purchase order based on the rules listed in the following table.

<table>
<thead>
<tr>
<th>Document Execution Rule</th>
<th>Supply Type</th>
<th>Execution Document</th>
</tr>
</thead>
<tbody>
<tr>
<td>A buy-sell relationship exists between the source and destination organizations</td>
<td>Buy</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>The source and destination organizations are separate legal entities</td>
<td>Buy</td>
<td>Purchase Order</td>
</tr>
<tr>
<td>All other conditions</td>
<td>Transfer</td>
<td>Transfer Order</td>
</tr>
</tbody>
</table>
4. After a transfer order or purchase order is created, the inventory is shipped to the destination organization.

5. The transfer order details are reflected in the Supply Chain Orchestration work area.

The supply chain orchestration process also manages changes related to the update and cancellation of transfer orders. Changes include rescheduling a transfer order and changes in shipping method or date.

Approving Min-Max Replenishment Requisitions: Explained

You can choose to submit purchase requisitions that are created through the min-max replenishment for approval in the purchasing application.

Inventory sends the supply request to Supply Chain Orchestration (SCO). The role of SCO is to source the supply details from the purchasing application. There is no user action to perform in the Supply Orchestration work area. SCO automatically verifies if the requisition is preapproved or needs an approval in the purchasing application. If the requisition is not approved, the purchasing application will not create the purchase order.

How are reservations managed in back-to-back processing?

Reservation refers to allocation of material against the specific demand of an Order Management order fulfillment line. Reservation is required to support back-to-back business flows for Inventory tasks that involve creating and managing material reservations.

Points to consider:

- One reservation is created for a demand and supply.
- Reservations can be created for back-to-back Buy, Make, Transfer, or On Hand supply orders.
- Reservation supplies that can be reserved are Purchase Orders, Transfer Orders, Work Orders, and On Hand inventory.
- Partial fulfillment of reservations is not supported.
- Changes to reservation in Oracle Logistics Cloud leads to exceptions, which are displayed in the Supply Chain Orchestration work area.

Make Flow: How It Is Processed in Supply Chain Orchestration

Make or manufacturing flows create work orders, which are internal documents that start a manufacturing process.
How Make Requests Are Processed

Make requests are processed as follows:

1. Supply requests are received in Supply Chain Orchestration.
2. Supply requests are processed in the decomposition Layer, supply orders are created, and the task layer initiates request for creation of work order in Oracle Manufacturing Cloud.
3. The External Interface Layer (EIL) directs the supply request to the manufacturing application. The Manufacturing task layer tracks the work order and indicates exceptions in the Supply Lines Overview page.

Supply Chain Orchestration creates work orders from Inventory Min-Max, Planning, and Order Management (back-to-back orders).

In case of back-to-back, there are two possible variants:

- The back-to-back contract manufacturing work order is used to track production in the contract manufacturer’s facilities, and is created for and reserved against a specific sales order.
- The back-to-back work order is executed in the organization’s own manufacturing facilities, and is created for and reserved against a specific sales order.

The supply chain orchestration process also manages changes related to update and cancellation of work orders. Changes include change in dates or quantity related to demand.

- To manage demand-side changes in back-to-back and contract manufacturing, multiple tracking lines may be created in Supply Chain Orchestration. The tracking lines are displayed in the Supply Chain Orchestration work area. The work order remains unchanged and is applicable as such.
- In case of rejected products, the original tracking line remains the same, and a new tracking line is created for the rejected quantity.
- In case of exceptions, a work order can be manually put on hold, while the exception is resolved.

Buy Flow: How It Is Processed in Supply Chain Orchestration

Buy flows create purchase orders, which are the internal supply documents that start a purchase process.

How Buy Requests Are Calculated

Buy order requests are processed as follows:

1. Supply requests are received in Supply Chain Orchestration.
2. Supply requests are processed in the decomposition Layer, supply orders are created, and the task layer initiates request for creation of purchase order in Oracle Procurement Cloud.
3. The External Interface Layer (EIL) directs the supply request to the purchasing application. The Purchasing task layer tracks the purchase order and indicates status and exceptions in the Supply Lines Overview page.
Buy flow purchase orders are created in Oracle Procurement Cloud. Buy requests can originate from Order Management, Planning, or Inventory.

The supply chain orchestration process also manages changes in back-to-back Buy flow. Changes include the following:

- Create, update, and cancel purchase orders in Oracle Procurement Cloud based on requests from the supply requesting applications.
- Record and respond to business events in Oracle Procurement Cloud due to supply-side changes. Responses include creating, canceling, and splitting purchase orders, purchase order lines, or purchase order line schedules.
4 Managing Supply Request Exceptions

Manage Supply Request Exceptions: Overview

The Manage Supply Request Exceptions page lists the supply requests that failed during processing. The listed supply requests are not processed, that is no supply orders are created. It is possible to recover some of these supply requests.

You can use the Manage Supply Request Exceptions page to view the supply requests in exception in a table view. The Exception Message column in the table displays exception details per batch of supply request lines.

You can perform the following actions for a supply request exception:

- If the issue can be resolved, you can resolve the issue and resubmit the supply request. You cannot edit the supply request data prior to resubmitting a supply request in error. Before resubmitting the supply request, you must resolve the cause of the exception in the source application (for example, a setup that was incomplete). After correction, the specific record is queried again in the Manage Supply Request Exceptions page and resubmitted.

- If the issue cannot be resolved, that is it involves missing or incorrect data, you must cancel the supply request. In such cases, the supply request needs to initiated again from the supply requesting application.

The Manage Supply Request Exceptions page also displays the number of times the selected supply request is resubmitted.

What happens if supply request exceptions are not resolved?

Unresolved exceptions, which are not resubmitted or marked inactive, continue to display on the Manage Supply Exceptions page. Supply orders are not created for these exceptions.

For performance and maintenance efficiency, avoid a build-up of unresolved exceptions.

Can I make changes to a supply request before resubmitting it?

You cannot make changes to a supply request from the Manage Supply Exceptions page. Use the exception message to view the cause of error, and correct it in the source application. After corrective action, refresh the Manage Supply Exceptions page, select the updated record, and resubmit it.
What's the difference between supply chain exception and jeopardy?

Exceptions are supply or demand changes that affect quantity or supply dates. Jeopardy is a deviation, perceived during forward planning, when supply is delayed beyond its need-by date. The deviation has not yet happened. Exceptions and jeopardy can be rectified manually or using automated change management, and resubmitted for processing.
5 Managing Configured Item Exceptions

Manage Configured Item Exceptions: Explained

Configured items are assemble-to-order items, which are based on customer selections specified at the time of order capture.

The fulfillment process-related exceptions and resolutions applicable to standard items also apply to configured items, and are displayed on the Manage Supply Request Exceptions page.

The Manage Configured Item Exceptions page displays the specific exceptions caused during the creation of configured items. The page displays the configured items in exception in a table view. The Exception Message column in the table lists the exception messages for each configured item request.

You can perform the following actions in the page:

- Export to Excel: Downloads the exception search results as a Microsoft Office Excel file.
- Resubmit: Resubmits the configured item for processing. You can resubmit a configured item after the exception reported on it is resolved.
- Ignore Exception: Removes the exception record from the list.

Configured Item Exceptions

Configured item creation exceptions occur due to the following reasons:

- Error in new configuration item creation in Oracle Product Information Management Cloud: If the new configuration item or its attributes are not successfully added to Product Information Management, the order is rejected and the configured item is not processed further. After the cause of the error is corrected, the order must be submitted again.
- Error in processing of a configured item after it is added in Oracle Product Information Management Cloud: Model item entities are copied to configured items and used in configured item processing. The entities include subinventories and locators, item transaction defaults, inventory consumption rules, and units of measure (both intra-class and inter-class). Errors are logged in case of any failures.

Configuration Item Processing in Supply Chain Orchestration

Configured items are processed as follows:

1. After confirmation of a configured item line, the order is matched with previous configurations to see if the configuration item name already exists.
2. The following outcomes are possible while matching with existing configurations:
   - If a match is found, the requested configuration selection is assigned the existing configuration item name.
   - If a match is not found, a new configured item is created in Product Information Management and the new configuration item name is assigned to the configuration.
3. The organizations from which the item will be sourced are identified.
4. The configuration item name and organization are passed to the downstream applications.
Viewing Configured Item Sales Structure

View Configured Item Sales Structure: Explained

You can view the sales view or the manufacturing view of a configured item structure.

The sales view includes options, option classes, and the transactional item attributes that are set during order entry at run time. The manufacturing view is the complete item structure that includes model items, selected options, mandatory components, substitutions, and transactional item attributes.

View Configured Item Sales Structure Page

The structure of a configured item is not visible in the Product Information Management work area. This is because the configured item bills of material are not stored in the Product Information Management work area, but are constructed upon request using the configured item data and the base model structure. The View Configured Item Structure page enables you to view the sales view of a configured item without having to go back to the sales order. The page displays dynamic configured item bills of material.

You can use the Item field in the Search section to search for a configured item. The search results are displayed in the Item Structure Details section. You can drill down to view the configured item components and related information. You can also use the Export to Excel option to download the configured item structure details as a Microsoft Office Excel file.

ConfiguredItemService Web Service

You can use the ConfiguredItemService web service to retrieve and view the sales structure or complete item structure of a configured item.

Note:

- For information about the ConfiguredItemService web service, see the SOAP Web Services for Oracle Supply Chain Management Cloud guide
- If a configured item structure or its optional and required items are not the same across organizations, the complete item structure will not be consistent across organizations. Such a setup is not supported.
7 Creating Supply Request

Create Supply Request: Overview

Use the Create Supply Request page to create an urgent request to transfer an item. For example, when a warehouse manager must replenish stock for an item outside of a regular planning cycle. Here's the sequence.

1. In the Navigator, do one of these.
   - Go to the Inventory work area, then go to the Manage Item Quantities page.
   - Go to the Supply Lines Overview work area, then go to the Create Supply Request task.

2. Go to the Create Supply Request page and create a supply request.
3. The application sends the supply request to Supply Chain Orchestration.
4. Supply Chain Orchestration validates the supply request. If validation:
   - **Succeeds.** Supply Chain Orchestration creates a supply order, then sends supply transfer details to Inventory. Inventory creates the transfer order. Orchestration monitors the supply creation process until it closes the transfer order.
   - **Doesn't succeed.** Inventory doesn't create the transfer order, and the application displays an error message.

Creating an Ad Hoc Supply Request: Procedure

You can use the following procedure to place ad hoc supply requests for items missed during regular planning. For example, consider a warehouse manager signs in and accesses the Manage Item Quantities page in the Inventory work area to check item quantities.

On finding insufficient item quantity, the warehouse manager decides to place an ad hoc supply request for it.

To create an ad hoc supply request:

1. Access the Create Supply Request page as follows:
   - In the Inventory work area, on the Manage Item Quantities page, search and select the item numbers for which to create a supply request and select **Request Transfer Order** from the **Actions** menu.
   - In the Supply Lines Overview work area, click the **Create Supply Request** task in **Tasks** panel drawer.

   The Create Supply Request page opens and displays the destination organization that was specified in the launching page. A supply request reference number is autogenerated for the supply request.

   **Note:** If you accessed the Create Supply Request page from the Manage Item Quantities page, you can skip the next step.
2. If you accessed the Create Supply Request page from the Supply Lines Overview work area, select a destination organization as follows:
   a. Click Change Organization. The Select Organization dialog box appears.
   b. Select the destination organization from the Organization drop-down list.
   c. Click OK. The selected organization is used as the destination organization in the supply request.

3. Create supply request as follows:
   o If you accessed the Create Supply Request page from the Manage Item Quantities page, the selected items are populated in the supply request rows.
   o If you accessed the Create Supply Request page from the Supply Lines Overview work area:
     i. Click Add Row in the toolbar of the Create Supply Request page. A new row appears in the table.
     ii. Enter the following supply details:
        o Item: Search and select the Item code to be ordered.
        o Requested Quantity: Enter the number of items to be ordered.
        o Requested Delivery Date: Enter the date by which the item must be delivered.

   Note: The UOM column is automatically populated with the primary unit of measure defined for the item.

4. Click the Select Supply Source button. The Select Supply Source page opens. It displays the source organizations available for the item details and requested delivery date you entered. The source organizations are ranked based on their distance from the destination organization or based on the Option Ranks returned by Global Order Promising.

   Note:
   o The Select Supply Source page is also accessible from the Enter Requisition Lines page in Self Service Procurement (SSP) to search and select supply sources.
   o If you are unable to select a source because an error displays on clicking the Select Supply Source button, it is possible that your user role does not have access to the GOP service. In the Security Console, create an appropriate role and assign to the user. Use the following details while creating the role:
     • Role Category: SCM - Job Roles
     • Function Security Policy Name: View Planning Supply Availability
     • Function Security Policy Code: MSP_VIEW_PLANNING_SUPPLY_AVAILABILITY_PRIV
     • User Login: Appropriate inventory or procurement role or user for which access is required.
     For information about how to create custom roles, see Oracle SCM Cloud: Securing Oracle SCM Cloud.

5. Select a source organization and click OK. The value displays in the Create Supply Request page.

6. If you must update the default supply request information, do the following:
   a. Select the Additional Information icon in the Supply Details column. The Supply Details dialog box appears.
   b. Enter or modify details, such as Destination Type, Destination Subinventory, and Source Organization, in the Supply Details dialog box and click OK.

   Note: Values for Supply Type, Destination Location, Source Subinventory, and Shipping Method are automatically populated based on your selections.
7. Click **OK**.
8. Click **Submit** to submit the supply request for processing. A supply order is created in Supply Chain Orchestration, and a supply request reference number and a supply request reference line number are generated and displayed in the header. A confirmation dialog box appears that displays the supply request reference number.

**Note:**
- One supply request reference number is created per supply request.
- You can use the supply request reference number to search and query the new supply order.

**Related Topics**
- Creating Roles in the Security Console: Procedure

**How are Supply Source Organizations Ranked?**

For an unplanned item, orchestration ranks supply sources according to their distance from the destination organization. If the distance isn’t available, then orchestration uses a lower rank to indicate the source organization.

For a planned item, orchestration ranks the supply source according to the Option Ranks that Global Order Promising provides.

**Plan Supply Orchestration Processes Scheduled Process: Explained**

This topic lists the processes available in the Plan Supply Orchestration Processes scheduled process. The following table displays the process names for each supply type:

<table>
<thead>
<tr>
<th>Supply Type</th>
<th>Process Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back-to-Back</td>
<td>DOS._DosOrchB2BPurchaseProcessComposite</td>
<td>Processes used to fulfill supply requests from Oracle Fusion Distributed Order Orchestration</td>
</tr>
<tr>
<td></td>
<td>DOS._DosOrchB2BTransferProcessComposite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOS._DosOrchB2BMakeProcessComposite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOS._DosOrchB2BATPProcessComposite</td>
<td></td>
</tr>
<tr>
<td>Contract Manufacturing</td>
<td>DOS._DosOrchB2BContractMfgProcessComposite</td>
<td>Processes used to fulfill supply requests from Oracle Fusion Distributed Order Orchestration and Planning</td>
</tr>
<tr>
<td></td>
<td>DOS._DosOrchP2PContractMfgProcessComposite</td>
<td></td>
</tr>
</tbody>
</table>
### Supply Type

<table>
<thead>
<tr>
<th>Supply Type</th>
<th>Process Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Buy</td>
<td>DOS_. DosOrchSimpleBuyCreateProcessComposite</td>
<td>Processes used to fulfill Buy supply requests from Planning</td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleBuyUpdateProcessComposite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleBuyCancelProcessComposite</td>
<td></td>
</tr>
<tr>
<td>Simple Make</td>
<td>DOS_. DosOrchSimpleMakeCreateProcessComposite</td>
<td>Processes used to fulfill Make supply requests from Planning</td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleMakeUpdateProcessComposite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleMakeCancelProcessComposite</td>
<td></td>
</tr>
<tr>
<td>Simple Transfer</td>
<td>DOS_. DosOrchSimpleTransferCreateProcessComposite</td>
<td>Processes used to fulfill Transfer supply requests from Planning and MINMAX</td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleTransferUpdateProcessComposite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOS_. DosOrchSimpleTransferCancelProcessComposite</td>
<td></td>
</tr>
</tbody>
</table>
Managing Production Reports

Manage Production Reports: Explained

The Manage Production Reports page displays contract manufacturing production reports. You can search for and select a production report and drill-down to view its details.

Production report data is uploaded by contract manufacturers, received and processed in Supply Chain Orchestration, and passed as updates or new transactions to manufacturers. The Manage Production Reports interface is accessible to the following users:

- Suppliers or contract manufacturers: Can access the production reports from the Supplier Portal work area. Suppliers can upload production reports using the Manage Production Reports page. Production reports are restricted by supplier and supplier, hence suppliers can view production reports only for the purchase orders they are assigned.

- Supply Chain Managers: Can access the production reports in the following two ways depending on the applications they access them through.
  
  - Can access the production reports using the Manage Production Reports task in the Supply Lines Overview work area. Supply chain managers can view all production reports being tracked by Supply Chain Orchestration. They can also resubmit or upload the production reports.
  
  - Original Equipment Manufacturers (OEM), who are also assigned the Supply Chain Manager role, can access the production reports in the Supply Chain Collaboration Overview work area using the supplier production reports infolet. The infolet displays status of the production reports. Double-click to navigate to the Manage Production Reports page. OEMs can view all production reports being tracked by Supply Chain Orchestration.

Depending on the role, you can perform the following actions:

- **Upload**: You can upload production report to create transactional data records in the manufacturing application. In case of data validation errors, you can correct the data and upload again to update the transactional data records. The **Upload** action is available for Suppliers.

- **Resubmit**: You can resubmit a production report if production data was not updated in the manufacturing application due to system failure. The **Resubmit** action is available for Supply Chain Manager.

To view the details of a production report displayed in the Manage Production Reports page, click the link in the Production Report column. The Production Reports page opens and displays read-only, detailed transaction completion and material data in the Completion and Material tabs. The Materials tab displays details of the material provided by the manufacturer that the contract manufacturer used to complete a transaction. In case the contract manufacturer provides all material, no data displays in the tab. You can use the links in the Details column in each tab to view the lot and serial numbers associated with the completion or material transaction.

Uploading Production Reports: Explained

When you upload a file containing production data and submit it, a production report is created in Supply Chain Orchestration. The production report contains transactions, which are passed on to the manufacturing application and used to update its records.
The upload process is as follows:

1. Supplier uses the upload file template to provide required production data. Using the template ensures that complete and correct data is provided for upload.
2. Supplier uploads the file using the Manage Production Reports page.
3. Production report records are created in Supply Chain Orchestration.

> **Note:** If a production report cannot be created in Supply Chain Orchestration, it results in an error. The upload is canceled and no transaction records can be created in the manufacturing application. Suppliers can upload the report after corrections.

4. The production report data is validated, and passed to the manufacturing application.

> **Note:** In case of data validation errors, suppliers can correct data and upload again. In case of system failures while passing data to the manufacturing application, Supply Chain Managers can resubmit the production report.

5. The manufacturing application updates its transaction records based on the received production data.