Salesforce Omnichannel Inventory Implementation Guide

Salesforce, Spring '24

'24

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SALESFORCE OMNICHANNEL INVENTORY IMPLEMENTATION

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Omnichannel Inventory

Familiarize yourself with basic Omnichannel Inventory concepts to help you plan your implementation.

For information on terminology, see the Omnichannel Inventory Glossary in *Salesforce Help*.

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This example illustrates the process of setting up and maintaining a system using Omnichannel Inventory with Salesforce Order Management and B2C Commerce.

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You can configure a fulfillment location to ship order products or provide Buy Online, Pick Up In Store (BOPIS) service.

The Inventory Lifecycle

This example illustrates the process of setting up and maintaining a system using Omnichannel Inventory with Salesforce Order Management and B2C Commerce.

1. Create the location graph in Omnichannel Inventory.

2. Seed Omnichannel Inventory with initial availability data from an external inventory management system such as a WMS or ERP.

3. Create the products and locations in the B2C Commerce storefront.

4. Configure and enable the integration of Order Management with the storefront.

5. Configure and enable the integration of Omnichannel Inventory with the storefront, including inventory lists based on the location graph and the inventory availability data feed.

6. As shoppers place orders in the storefront, it sends order data to Order Management.

7. Order Management communicates with Omnichannel Inventory to identify product availability and route reservations to fulfillment locations.

8. As locations fulfill orders, Order Management communicates with Omnichannel Inventory to adjust the corresponding reservations and inventory levels in the Omnichannel Inventory service.

9. The external inventory management system sends regular physical stock level updates to Omnichannel Inventory, which then sends updated availability data to the storefront.

Inventory Fulfillment Locations

Omnichannel Inventory uses three objects to represent the facilities that fulfill orders: Location, Location Group, and Location Group Assignment.

Location

Tracks inventory availability for a location such as a warehouse or retail store.

Location Group

Aggregates and exposes inventory availability for a group of related locations, such as those in a defined geographic area or belonging to a common brand or storefront. When a shopper orders through a sales channel associated with a location group, routing logic can fulfill the order from any location or set of locations in that group. In B2C Commerce, you can easily associate a location group with a site or store by using the corresponding B2C Commerce inventory list.

Location Group Assignment

The relationship between a location and a location group. A location group has one assignment for each of its locations, and a location has one assignment for each location group that it belongs to.

The complete set of locations, groups, and assignments is called the location graph.

📝 **Note:** When using D2C Commerce, your location graph is limited to one location and one location group.

Salesforce associates location and location group records with corresponding OCI records and B2C Commerce inventory lists by using the External Reference field.

- External References must be unique. Attempting to save a duplicate External Reference causes an error.

- A location or location group's External Reference must exactly match the ID of the corresponding inventory list in B2C Commerce.

- In inventory API inputs and outputs, locations and location groups are identified by External Reference, not record ID.

Inventory Reservations

When an order is placed, the system reserves inventory to fulfill that order. A reserved quantity of a specific product at a location or location group is called a reservation. When a reservation is assigned to a location group, you can implement business rules to transfer it to a specific location for fulfillment.

For example:

1. A shopper places an order for several products on an online storefront.
2. The system creates reservations for the ordered products at the location group containing that storefront's fulfillment locations.
3. Business rules calculate the most efficient set of locations in the group that can fulfill all the reservations from the order.
4. The system transfers the reservations to the individual locations determined by the calculation.
5. Each location that received one or more reservations fulfills the ordered products represented by its reservations.

Configuring Locations for Order Shipping and Pickup

You can configure a fulfillment location to ship order products or provide Buy Online, Pick Up In Store (BOPIS) service.

Here are some examples:

Shipping Only

In Salesforce, assign the location to a location group associated with a storefront. When a shopper places an order on that storefront, create inventory reservations at the location group. Then route the reservations to individual locations for fulfillment according to business rules.

When using B2C Commerce, create a site inventory list that represents the storefront, and then map it to the location group.

BOPIS Only

When a shopper places a BOPIS order, reserve inventory at the location.

When using B2C Commerce, create a site inventory list containing products available for BOPIS orders at that location, and then map it to the location. When a shopper places a BOPIS order, use that inventory list instead of the inventory list associated with a location group for shipping fulfillment. To restrict a location to only BOPIS orders, don't add it to any location groups.

Shipping and BOPIS

In Salesforce, assign the location to a location group associated with a storefront. For order items to be shipped, reserve inventory at the location group. For BOPIS items, reserve inventory at the location.

When using B2C Commerce, create a store inventory list containing BOPIS-eligible products for each location that can fulfill shipping and BOPIS orders. Map the location group to the inventory list that represents the storefront, and then map each location to the corresponding inventory list containing products available for BOPIS.

Plan Your Omnichannel Inventory Implementation

Consider your inventory requirements and plan your implementation.

Considerations for Omnichannel Inventory
Keep these considerations in mind when designing your system.

Salesforce B2C Commerce Considerations
If you use a Salesforce B2C Commerce storefront, be sure to consider these things as you plan your implementation.

Connecting Omnichannel Inventory to Multiple B2C Commerce Instances

You can connect storefronts from multiple B2C Commerce instances or realms to a single Omnichannel Inventory instance so that all inventory is powered from a single source. All orders from the various instances are sent to a single order management for processing.

Considerations for Omnichannel Inventory

Keep these considerations in mind when designing your system.

- How to handle data imports from an external system of record, such as a WMS.

- Which physical and virtual inventory locations to include in the Omnichannel Inventory location graph.

  📝 **Note:** The location graph is a complex topic, and changing it after uploading inventory data can cause performance issues. For more information, see Manage Locations and Location Groups in *Salesforce Help*.

  📝 **Note:** When using D2C Commerce, your location graph is limited to one location and one location group.

- How to transfer any existing inventory data import processes from your current storefront to Omnichannel Inventory.

- How to manage the cutover from your existing implementation to the integrated system. For example, you can plan an order moratorium while switching to the new system for managing availability data.

- Whether any existing customizations or business processes can benefit from being reimplemented in Omnichannel Inventory.

Salesforce B2C Commerce Considerations

If you use a Salesforce B2C Commerce storefront, be sure to consider these things as you plan your implementation.

- Before refreshing a Salesforce sandbox that's integrated with B2C Commerce, deactivate the existing connections associated with the Salesforce sandbox. Then provision new connections from the refreshed Salesforce sandbox to your B2C Commerce instance.

- Understanding that activating Omnichannel Inventory for a B2C Commerce instance activates it for all sites running on that instance. You use one Omnichannel Inventory instance for each B2C Commerce instance. Initial provisioning provides one Omnichannel Inventory instance. To provision another one, request an additional Order Management sandbox. Each Order Management sandbox allows one Omnichannel Inventory instance.

- Whether to use B2C Commerce stores to associate inventory lists with order product line items. If so, how to map stores to the location graph.

- How to map your sites, stores, and inventory locations to locations and location groups in Omnichannel Inventory.

- Which locations and location groups to associate with inventory lists in B2C Commerce.

- How to associate Omnichannel Inventory locations and location groups with B2C Commerce inventory lists that are used for orders but not assigned to a site. For example, lists assigned to a store.

- Whether any existing customizations are incompatible with Omnichannel Inventory, and whether to reimplement them in Omnichannel Inventory. This consideration includes any customization that creates or modifies individual product inventory records.

  📝 **Note:** OCAPI calls to the `inventory_lists/`*`{inventory_list_id}`*`/product_inventory_records` endpoint aren't compatible with Omnichannel Inventory.

- Whether your storefront uses a custom SSL certificate. You can't use Omnichannel Inventory with a staging instance of B2C Commerce that uses a custom SSL certificate. Custom domain traffic from B2C Commerce isn't allowlisted, so communication with Omnichannel Inventory requires the storefront to use the embedded Content Delivery Network (eCDN). The eCDN isn't active for a staging instance.

Connecting Omnichannel Inventory to Multiple B2C Commerce Instances

You can connect storefronts from multiple B2C Commerce instances or realms to a single Omnichannel Inventory instance so that all inventory is powered from a single source. All orders from the various instances are sent to a single order management for processing.

The Omnichannel Inventory integration is enabled for the entire B2C Commerce instance. After Omnichannel Inventory is activated, all sites within that instance switch to Omnichannel Inventory. You can't enable Omnichannel Inventory for an individual site in the B2C Commerce instance.

All quota limits are applied at the Omnichannel Inventory instance level. When you're connecting multiple B2C Commerce instances to a single Omnichannel Inventory instance, consider whether the Omnichannel Inventory limits will support your needs as they expand across multiple B2C Commerce instances and realms.

You can also connect production and stage instances to a single Omnichannel Inventory instance to work in a stage environment with real production data without needing to replicate the data. However, don't make changes to the data.
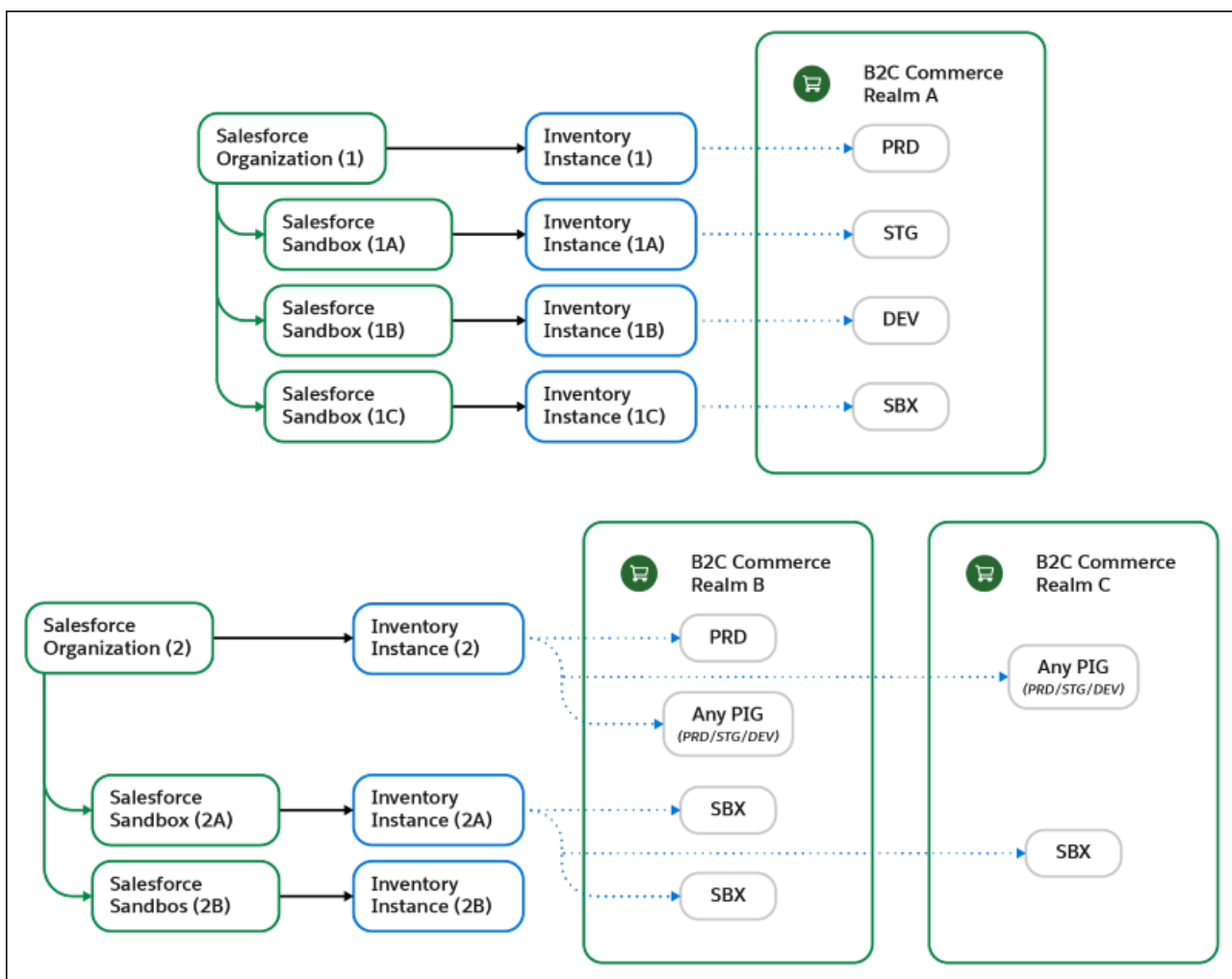
To connect one or more B2C Commerce instances to one Omnichannel Inventory instance, use the B2C Commerce Connections page in Salesforce (see Set Up the Connection Between Omnichannel Inventory and B2C Commerce).

Considerations

- When initially adding the Omnichannel Inventory license to Salesforce, determine if you want to use an existing or new org.

- – If you're using an existing org, consider who requires licenses, access, and visibility to Omnichannel Inventory.
  - – If you're creating an org, this data will be separate from other orgs, so consider how data sharing and segmenting will be impacted.
- Determine how many sandbox copies to create as part of your development and implementation setup.
  - – To clone a sandbox, see Create, Clone, or Refresh a Sandbox.
  - – To apply an Omnichannel Inventory license to a sandbox, see Match production and sandbox licenses without a sandbox refresh.

Step 1: Set Up Omnichannel Inventory in Salesforce

Configure Salesforce to run Omnichannel Inventory.

Enable Omnichannel Inventory
If you're new to the Salesforce platform, start by setting up a Salesforce org.

Users and Permissions
To access Omnichannel Inventory features, users require either the System Administrator profile or the Omnichannel Inventory Manager permission set. You can assign the permission set to users with the Identity user license.

Enable Omnichannel Inventory

If you're new to the Salesforce platform, start by setting up a Salesforce org.

The person who signed your Omnichannel Inventory order form received a welcome email for the org. Their email address is the user ID of the org's initial Salesforce admin account. For information about setting up the org, see Set Up and Maintain Your Salesforce Organization in *Salesforce Help*.

🔴 **Important:** Instructions to log out, refresh a page, or wait for the cache to update are easy to miss. Skipping them can cause problems that are hard to troubleshoot, so follow every step carefully.

1. Enable Lightning Experience. Omnichannel Inventory isn't currently supported on Salesforce Classic or Mobile. On Mobile, you can view record pages but can't use other Omnichannel Inventory features.

2. If you plan to integrate with Salesforce Order Management, set it up by following the procedures in the Salesforce Order Management Implementation Guide for B2C Commerce or Salesforce Order Management Implementation Guide for B2B and D2C Commerce.

   📝 **Note:** If you use the Create Reship Order flow, customize it to set the `applyOCI` variable to *true*. Its default value is *false*.

3. If you aren't using Salesforce Order Management, define a set of fulfillment location types, such as Warehouse and Retail Store. Add them to the Location Type picklist on the Location object. For details about the location object, see Location in the *Object Reference*.

4. From Setup, in the Quick Find box, enter `Omnichannel Inventory`, and then select **Omnichannel Inventory**.

   📝 **Note:** **Omni-Channel** is a different product.

5. Turn on the **Omnichannel Inventory** setting.

Users and Permissions

To access Omnichannel Inventory features, users require either the System Administrator profile or the Omnichannel Inventory Manager permission set. You can assign the permission set to users with the Identity user license.

Assign Permission Sets

Assign the permission set to users with the Identity user license.

1. From Setup, in the Quick Find box, enter *Permission Sets*, and then select **Permission Sets**.

2. Select **Omnichannel Inventory Manager**.

3. Click **Manage Assignments**.

4. Click **Add Assignments**.

5. Select the checkbox next to each user that you want to have the permission set.

6. Click **Assign**.

7. Click **Done**.

> **Note:** Assigning the Omnichannel Inventory Manager permission set to a user also assigns an Omnichannel Inventory license to that user.

Set Sharing Settings for Location and Location Group Objects

Set the sharing settings for the Location and Location Group objects.

1. From Setup, in the Quick Find box, enter *Sharing Settings*, and then select **Sharing Settings**.

2. Click **Edit**.

3. For Location and Location Group, from the **Default Internal Access** dropdown, select **Public Read/Write**.

4. For Location and Location Group, from the **Default External Access** dropdown, select **Public Read/Write**.

5. Click **Save**.

Give Order Management B2C Service Permission Set Access to Inventory Objects and Fields

If you use Salesforce Order Management and B2C Commerce, give the Order Management B2C Service permission set access to the inventory objects and fields.

1. From Setup, in the Quick Find box, enter *Permission Sets*, and then select **Permission Sets**.

2. Select **Order Management B2C Service**.

3. In the Apps section, click **Object Settings**.

4. Select **Order Products**.

5. Click **Edit**.

6. In the Field Permissions section, find Reserved at Location and select its **Edit Access** checkbox.

7. Click **Save**.

8. From the objects dropdown, select **Location Group Assignments**.

9. Click **Edit**.

10. In the Object Permissions section, select all of the checkboxes.

11. Click **Save**.

12. From the objects dropdown, select **Location Groups**.

13. Click **Edit**.

14. In the Object Permissions section, select all of the checkboxes.

15. Click **Save**.

16. From the objects dropdown, select **Locations**.

17. Click **Edit**.

18. In the Object Permissions section, select all of the checkboxes.

19. Click **Save**.

Step 2: Integrate B2C Commerce

If you're integrating Omnichannel Inventory with a Salesforce B2C Commerce storefront, configure the integration. Otherwise, skip to the next step.

Prepare B2C Commerce
First, get your B2C Commerce instance ready.

Set Up the Connection Between Omnichannel Inventory and B2C Commerce
This process includes steps in Salesforce and B2C Commerce instance Business Manager.

Prepare B2C Commerce

First, get your B2C Commerce instance ready.

1. If you're setting up a new instance of B2C Commerce, install and configure it according to the documentation.

> **Note:** You activate the Omnichannel Inventory integration per B2C Commerce instance. So if you have sandbox, stage, and production instances, you follow the process for each one separately.

2. Create or import your sites and stores in B2C Commerce.

3. Create or import the B2C Commerce inventory lists to be paired with locations and location groups. Make sure that each ID in B2C Commerce matches the External Reference of the corresponding location or location group in Salesforce.

4. Assign the inventory lists to sites and stores.

5. In Business Manager, navigate to **Administration** > **Global Preferences** > **Retention Settings**. Set the Inventory Record Retention to a value greater than 0. This setting ensures that after the integration is activated, B2C Commerce deletes any unused legacy product inventory records. When the integration is active, Omnichannel Inventory handles all individual product inventory records.

> **Note:** If this setting is 0, then B2C Commerce doesn't delete records that are no longer needed.

6. In Business Manager, navigate to `sitename` > **Merchant Tools** > **Site Preferences** > **Order**. In the Failed Orders Setting section, set Auto-Fail Orders to a value greater than 0. This setting automatically fails any unplaced orders in Created status after the specified number of minutes. Unplaced orders older than 30 days can cause availability discrepancies with Omnichannel Inventory.

Set Up the Connection Between Omnichannel Inventory and B2C Commerce

This process includes steps in Salesforce and B2C Commerce instance Business Manager.

1. In your B2C Commerce instance, log in to Business Manager, and keep the tab open.

2. In another browser tab, log in to Salesforce, and go to Setup.

3. From Setup, in the Quick Find box, enter `Omnichannel Inventory`, and then select **Omnichannel Inventory**.

   📝 Note: Omni-Channel is a different product.

4. Select **Omnichannel Inventory-B2C Commerce Integration**.

5. In the Quick Find box, enter `B2C Commerce`, and then select **B2C Commerce Connections**.

   📝 Note: If you don't see **B2C Commerce Connections**, return to the Omnichannel Inventory settings page and verify that you selected **Omnichannel Inventory**.

6. If you use Salesforce Order Management and already set up a connection with B2C Commerce when you configured it, that connection appears here. If so, and you plan to use the same connection for Omnichannel Inventory, click **Edit** in the existing Tenant Connection and skip the next step.

7. If you don't already have a connection with B2C Commerce, create one.

   a. Click **New Connection**.

   b. Enter a name for the connection. You can also change the Connection Name later by clicking the name in the Tenant Connections list.

   c. For B2C Instance ID, enter the B2C Commerce realm instance ID. To get your instance ID, log in to B2C Commerce Business Manager and go to **Administration** > **Global Preferences** > **Salesforce Order Management Configuration**. The Tenant ID displayed on that page is the instance ID.

   d. Click **Save**, and then in the Allow Tenant Linkage window, click **Allow**.

8. In the Available Connection Type list, select **Omnichannel Inventory** and move it to the Selected Connection Type list.

9. Click **Save**.

10. Confirm that the information is correct, and click **Save**.

You can connect more than one instance of B2C Commerce to Omnichannel Inventory by repeating the connection process for each B2C Commerce instance.

The new connections appear in the Tenant Connections list. Depending on a connection's type, its status can be Active or Queued. When a queued connection's provisioning is completed, its status changes to Active, and a notification is sent to the System Administrator email address.

Step 3: Configure Omnichannel APIs

You can implement Omnichannel Inventory functionality via the headless Commerce API, Connect API, and invocable actions.

API Access

The headless Commerce API is the main programmatic interface with Omnichannel Inventory. To use it, configure authentication via Account Manager or set it up as a connected app.

Configure Headless Commerce API Authentication via Account Manager

To authenticate with Account Manager, set up an API Client ID, then use it to obtain a token for making API calls.

Set Up the Headless Commerce API as a Connected App

Set up the Headless Commerce API as a connected app.

API Access

The headless Commerce API is the main programmatic interface with Omnichannel Inventory. To use it, configure authentication via Account Manager or set it up as a connected app.

📝 **Note:** If you're integrating Omnichannel Inventory with Salesforce B2C Commerce, use Account Manager. Otherwise, set up the headless Commerce API as a connected app.

You can access most of the same functionality using Connect in Apex or Connect REST API. In Salesforce Flow, you can call the Omnichannel Inventory invocable actions. Connect API and invocable actions don't require configuration.

🛑 **Important:** A flow that uses Omnichannel Inventory actions must have a runtime API version of 52.0 or later. If possible, always use the latest API version in your flows.

📝 **Note:** When importing inventory availability records, the headless Commerce API supports a much larger volume of data than Connect API does. Use the Commerce API for inventory availability imports whenever possible.

Because these inventory API calls communicate across applications, best practice for handling errors is to implement retries.

For more information on headless Commerce API authentication, see Commerce API Authentication in the *B2C Commerce API Guide*.

Configure Headless Commerce API Authentication via Account Manager

To authenticate with Account Manager, set up an API Client ID, then use it to obtain a token for making API calls.

1. Log into Account Manager as an account administrator at https://account.demandware.com.

2. Select the API Client tab.

3. Select **Add an API Client ID**.

4. Enter a unique Display Name and a strong password.

5. Under Access Control, select **Enabled**.

6. In the Organizations section, click **Add**.

7. Select your org, and click **Add**.

8. In the Roles section, take these steps:

   a. Click **Add**.

   b. Select **Salesforce Commerce API**, and click **Add**.

   c. Click the filter icon.

   d. In the Add Instance Filters tab, select your organization.

   e. Select your B2C Commerce instance, and click **Add**.

9. In the Default Scopes field, add the desired scopes. For information about available scopes, see the AUTHZ Scope Catalog in the *B2C Commerce API Guide*.

10. From the Token Endpoint Auth Method dropdown, select **client_secret_post**.

11. From the Access Token Format dropdown, select **JWT**.

   To obtain an Account Manager token for calling the headless Commerce APIs, use your tenant ID, Client ID (not the display name), and Client ID password. For example:

   ```
   curl -k --data 'grant_type=client_credentials&scope=SALESFORCE_COMMERCE_API:tenant_ID'
    --user 'client_ID:password' -X POST
   'https://{AccountManagerURL}/dwsso/oauth2/access_token'
   ```

   > 📝 **Note:** The tenant ID is part of your organization ID: `f_ecom_tenant_id`. For example, if your organization ID is `f_ecom_zzzz_001`, then the tenant ID is `zzzz_001`.

   When building URIs for your API calls, you need the short code for your B2C Commerce realm and your Salesforce Org's tenant group ID. Use the short code in the base URL and the tenant group ID as the organization ID. For example:

   ```
   https://{ShortCode}.api.commercecloud.salesforce.com/inventory/availability/v1/
   organizations/{TenantGroupId}/availability-records/actions
   ```

   Get the tenant group ID and the base URL, which includes the short code, from the Omnichannel Inventory admin settings page. In your Salesforce org, from Setup, in the Quick Find box, enter `Omnichannel Inventory`, and then select **Omnichannel Inventory**.

   > ⛔ **Important:** Use the tenant group ID as the Organization ID in resource URLs.

   > 📝 **Note:** For these inventory resources, the short code is a two-character country code in capital letters. Other resources use a different short code.

Set Up the Headless Commerce API as a Connected App

Set up the Headless Commerce API as a connected app.

1. Create a private key and certificate. Follow the instructions in Create a Private Key and Self-Signed Digital Certificate in the *Salesforce DX Developer Guide*.

2. In Salesforce, from Setup, in the Quick Find box, enter `OAuth Custom Scopes`, and then select **OAuth Custom Scopes**.

3. Click **New Custom Scope**.

4. For each of the Omnichannel Inventory scopes, enter the Name and Description, and then save it.

Name	Description
sfcc_inventory_impex_graphs	Export location graphs.
sfcc_inventory_impex_inventory_rw	Import inventory records.
sfcc_inventory_impex_inventory	Export inventory records.
sfcc_inventory_availability	Get inventory availability data.
sfcc_inventory_availability_rw	Update inventory availability data.
sfcc_inventory_reservations	Get inventory reservation information.

`sfcc_inventory_reservations_rw`	Update inventory reservations.

5. In the Quick Find box, enter `App Manager`, and then select **App Manager**.

6. Click **New Connected App**.

7. Enter a Connected App Name and a Contact Email.

8. To display the API settings, select **Enable OAuth Settings**.

9. Select **Enable for Device Flow**. Keep the auto-populated Callback URL value.

10. Select **Use Digital Signatures**. Click **Choose File**, then browse to and select the `server.crt` certificate file that you created in the first step.

11. Select and add the desired OAuth Scopes.

12. Select **Require Secret for Web Server Flow**.

13. Select **Require Secret for Refresh Token Flow**.

14. Save the app.

15. Click **Continue** and wait for the app to appear. It can take up to 10 minutes.

16. Click **Manage**.

17. Click **Edit Policies**.

18. Set the OAuth Policies and Session Policies as desired.

19. Save the policies.

20. Scroll to the OAuth Custom Scopes section, and then click **Manage OAuth Custom Scopes**.

21. Select all of the inventory scopes that you added, and then save the scopes.

22. In the Quick Find menu, click **App Manager**.

23. From your app's dropdown menu, select **View**.

24. Scroll to the Initial Access Token for Dynamic Client Registration section, and then click **Generate**.

25. Create a JWT and request an access token. Follow the instructions in OAuth 2.0 JWT Bearer Flow for Server-to-Server Integration in Salesforce Help.

26. In the Quick Find box, enter `Omnichannel Inventory`, and then select **Omnichannel Inventory**.

27. Record the Tenant Group ID and the Base URL for Inventory API Calls.

> Note: When making calls to the headless Commerce API, use the tenant group ID as the organization ID.

Step 4: Initialize Omnichannel Inventory Data in Your Salesforce Org

After setting up the Omnichannel Inventory APIs, initialize the inventory data in your Salesforce org.

Location Graph
Set up your Location Graph by creating locations and location groups in your Salesforce org and committing them.

Considerations for Importing Availability Data
Create or import initial product availability data for the locations and location groups.

Location Graph

Set up your Location Graph by creating locations and location groups in your Salesforce org and committing them.

This process is described in Manage Locations and Location Groups in *Salesforce Help*. Set up your Location Graph by creating locations and location groups in your Salesforce org and committing them Use Connect in Apex, Connect REST API, or Omnichannel Inventory console app. You can't use the headless Commerce API to set up your location graph.

For information on managing your Location Graph with Connect in Apex, see OmnichannelInventoryService Class in the *Apex Reference Guide*.

For information on managing your Location Graph with Connect REST API, see Salesforce Omnichannel Inventory Resources in the *Connect REST API Developer Guide*.

📝 **Note:** Configuring the location graph isn't a straightforward process. Before you begin, study the documentation.

Here's an overview of the steps to follow in your Salesforce org:

1. Create at least one location type.

2. For each location that fulfills orders, create a Location record.

   📝 **Note:** When using D2C Commerce, your location graph is limited to one location.

   a. Set Should Sync With OCI to **True**.

   b. Set Is Inventory Location to **True**.

   c. Set the Location Type as appropriate.

   d. Set the Visitor Address to the physical address of the location.

   e. Set the External Reference to a unique value. If you use Salesforce B2C Commerce, use the External Reference to associate the location with a dedicated B2C Commerce inventory list.

3. For each storefront, sales channel, or desired logical group of locations, create a Location Group record.

   📝 **Note:** When using D2C Commerce, your location graph is limited to one location group.

   a. Set Should Sync With OCI to **True**.

   b. Set Is Enabled to **True**.

   c. Set the External Reference to a unique value. If you use Salesforce B2C Commerce, use the External Reference to associate the location group with a dedicated B2C Commerce inventory list.

4. For each location, create a Location Group Assignment record for each location group that it belongs to.

   a. A location doesn't have to belong to any location groups.

   b. A location can belong to multiple location groups. Create a location group assignment for each one.

   c. Assign at least one location to each location group.

5. Commit the changes to Omnichannel Inventory by following the instructions in the help topics.

Adding or removing locations or location groups after loading inventory availability data can trigger large availability data and cache updates. To mitigate the performance impact, we recommend these practices:

- If you use Salesforce B2C Commerce, follow the instructions in Omnichannel Inventory Location Graph Changes in the *B2C Commerce Infocenter*.

- Schedule location graph changes for times with low-order traffic.

- Add or remove only one location or location group at a time.
- After making a change, wait for the update to finish before importing new inventory availability data.

Considerations for Importing Availability Data

Create or import initial product availability data for the locations and location groups.

If possible, use the headless Commerce API as described in Inventory Impex in *B2C Commerce API Reference*.

✏️ **Note:** Importing data with Connect API can cause performance and API quota issues.

To create an inventory data file, format the data as a series of JSON entries representing locations and individual inventory records.

Considerations for inventory import data include:

- Separate the top-level entries with line feeds, not commas. Each entry must be on a single line.
- The mode is assumed to be UPDATE.
- Each inventory record entry requires a unique recordId. Best practice is to use a UUID. The record Id protects against importing duplicate data.
- Each inventory record entry requires an effectiveDate.
- Each futures entry requires a nonzero quantity and a future expectedDate.
- The system only creates or updates entries that are included in the data. It doesn't delete entries that aren't included. However, if an included entry has an empty value, that value is deleted.
- If you make any changes to your location graph, don't import inventory data while the changes are in progress. If you have scheduled imports, pause them until the changes are complete.
- To avoid overselling during the initial implementation period, we recommend defining safety stock levels.
- Inventory data file restrictions differ according to the API used for upload:

    Headless Commerce API
    File Size Limit: 100 MB

    Allowed File Formats: JSON, GZIP

    Core Connect API (Apex or REST)
    File Size Limit: 10 MB

    Allowed File Format: JSON

✏️ **Note:** For large data sets, you can split the data into multiple files.

The following example illustrates the data format. For readability, the example shows the first few entries on multiple lines. In the import file, each inventory record entry must be on a single line.

```
{
  // unique identifier for the inventory record
  "recordId":"0a87539d-f3dd-47bc-91c7-9c752e39dbe0",
  "onHand":10,
  "sku":"12389156",
  "effectiveDate":"2020-12-08T14:05:22.790896-07:00",
  "futures":[  // list of future restocks
    {
    "quantity":1,
    "expectedDate":"2021-04-18T14:05:22.781-07:00"
    },
```

```
        {
        "quantity":5,
        "expectedDate":"2021-05-18T14:05:22.781-07:00"
        }
    ],
    "safetyStockCount":0,
    "locationId":"Warehouse-A"
}
{
    "recordId":"0a87539d-f3dd-47bc-91c7-9c752e312345",
    "onHand":10,
    "sku":"9485728",
    "effectiveDate":"2020-12-08T14:05:22.790896-07:00",
    "futures":[
        {
        "quantity":10,
        "expectedDate":"2021-04-18T14:05:22.781-07:00"
        }
    ],
    "safetyStockCount":0,
    "locationId":"Warehouse-A"
}
{"recordId":"0a87539d-f3dd-47bc-91c7-9c752e39dbe0","onHand":10,"sku":"sku1",
"effectiveDate":"2020-04-08T14:05:22.790896-07:00",
"futures":[{"quantity":1,"expectedDate":"2020-04-18T14:05:22.781-07:00"}],
"safetyStockCount":0,"locationId":"Warehouse-B"}

{"recordId":"3127e2ad-748b-459a-917c-78bef741602c","onHand":10,"sku":"sku1",
"effectiveDate":"2020-04-08T14:05:22.790896-07:00",
"futures":[{"quantity":1,"expectedDate":"2020-04-18T14:05:22.781-07:00"}],
"safetyStockCount":0,"locationId":"Warehouse-B"}

{"recordId":"b709e7a8-7d4f-4458-be0c-a88f1e594f1d","onHand":10,"sku":"sku2",
"effectiveDate":"2020-04-08T14:05:22.790896-07:00",
"futures":[{"quantity":1,"expectedDate":"2020-04-18T14:05:22.781-07:00"}],
"safetyStockCount":0,"locationId":"Warehouse-B"}
```

To upload the file to Omnichannel Inventory, first request an upload URI by making a POST call to this endpoint. Specify the `fileName` in the request payload.

```
/organizations/TenantGroupId/availability-records/imports/
```

For information about other request parameters, such as link time to live and file encoding format, see the *B2C Commerce API Reference*.

The response includes these values:

- importId—A UUID representing the data import.
- importStatusLink—A unique endpoint you can use to retrieve the status of the data upload.
- uploadLink—The unique endpoint you use to upload the data file.
- uploadMethod—Always POST.
- uploadLinkExpirationUTC—The time when the upload link expires. If you don't upload the data by that time, you must request a new import.

To start the upload, make a POST call to the uploadLink URI and include the import file as the payload.

To retrieve the status of the upload, make a GET call to the importStatusLink URl.

After creating or importing the initial inventory data, set up ongoing inventory data imports with your external inventory management system using the Omnichannel Inventory APIs.

📝 **Note:** For best performance, use delta data imports as much as possible. Try to limit full data imports.

Step 5: Activate the B2C Commerce Integration

If you're integrating Omnichannel Inventory with a Salesforce B2C Commerce storefront, follow these steps to activate the integration.

B2C Commerce Inventory Modes
B2C Commerce can be in one of three inventory modes: Commerce Platform Inventory, OCI Cache Enabled, Omnichannel Inventory.

Activate the Integration
Activate the integration and start using Omnichannel Inventory with your B2C Commerce storefront.

Deactivate Omnichannel Inventory
This process includes steps to deactivate the connection between B2C Commerce and Omnichannel Inventory.

B2C Commerce Inventory Modes

B2C Commerce can be in one of three inventory modes: Commerce Platform Inventory, OCI Cache Enabled, Omnichannel Inventory.

- **Commerce Platform Inventory**: B2C Commerce handles availability and reservations internally. The Omnichannel Inventory integration isn't active.
- **OCI Cache Enabled**: Omnichannel Inventory populates the availability data cache. However, B2C Commerce still handles availability and reservations internally.
- **Omnichannel Inventory**: The integration is active and B2C Commerce exclusively uses availability data in the cache and sends reservation requests to Omnichannel Inventory.

Initially, B2C Commerce is in Commerce Platform Inventory mode. When you first activate the integration with Omnichannel Inventory, B2C Commerce changes to OCI Cache Enabled mode. When the cache is ready, it can change to Omnichannel Inventory mode. The current mode is shown on the Omnichannel Inventory Integration page in Business Manager.

Activate the Integration

Activate the integration and start using Omnichannel Inventory with your B2C Commerce storefront.

🛑 **Important:** Don't begin this process until you verify that the initial import of inventory data into Omnichannel Inventory is complete. Use the importStatusLink API endpoint to check the import status.

1. In Business Manager, navigate to **Administration** > **Operations** > **OCI Integration**.

2. In the Omnichannel Inventory Integration Status section, click **OCI Cache Enabled**. B2C Commerce changes to OCI Cache Enabled inventory mode.

3. The Cache Status table begins populating with inventory data. Wait for data to appear for all inventory lists associated with locations and location groups.

   📝 **Note:** Normally, the cache requires at least one overnight data import to fully populate. For information on how the cache is populated, see Omnichannel Inventory Data Synchronization in the *B2C Commerce Infocenter*.

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4. Verify that availability data in B2C Commerce matches the data in Omnichannel Inventory. To view B2C Commerce inventory data in Business Manager:

   a. Verify that availability data in B2C Commerce matches the data in Omnichannel Inventory. To view B2C Commerce inventory data in Business Manager:

   b. Select an inventory list.

   c. Select the **Records** tab for that list, and search for individual products. To review all the products in the list, leave the search field empty, and click **Find**.

   d. Select a product. The **General** tab shows the internal B2C Commerce availability data and the cached Omnichannel Inventory data for that product. Verify that the cached data matches the data in Omnichannel Inventory.

      📝 Note: Remember that in the OCI Future values, the Quantity is the sum of all future quantities for the product and the date is the date of the earliest future restock.

   e. Repeat the steps for each inventory list and product.

5. After you verify that all the Omnichannel Inventory data is in the cache, you can activate the integration. We recommend that you minimize the risk of overselling during the activation by taking one or more of these actions:

   a. Activate the integration during a quiet business time when you expect few incoming orders.

   b. Take your storefront offline temporarily while you activate the integration.

   c. Before activating the integration, export all orders that already have reserved inventory.

6. Navigate to **Administration** > **Operations** > **OCI Integration**.

7. In the Omnichannel Inventory Integration Status section, click **Omnichannel Inventory**. B2C Commerce changes to Omnichannel Inventory mode. Now B2C Commerce uses the cache for all availability data and sends inventory reservations to Omnichannel Inventory. Individual inventory records in B2C Commerce are read-only.

8. Verify that everything works properly.

9. Start following regular processes for importing inventory data into Omnichannel Inventory.

10. Stop the processes that import inventory data directly into B2C Commerce. Continuing to run them produces warning logs, but doesn't overwrite the Omnichannel Inventory data cache.

Deactivate Omnichannel Inventory

This process includes steps to deactivate the connection between B2C Commerce and Omnichannel Inventory.

Before deactivating a B2C Commerce instance from Omnichannel Inventory, consider these recommendations:

- Plan to identify which inventory reservations are made in each system and handle them appropriately.

- If you plan to turn on the integration again, maintain the Omnichannel Inventory data import processes. By keeping them active, the data cache is up to date when you reactivate the integration.

Deactivate the connection:

1. Log in to Salesforce, and go to Setup.

2. In the Quick Find box, enter `B2C Commerce`, and then select **B2C Commerce Connections**.

3. In the Tenant Connection for which you want to remove the Omnichannel Inventory connection, click **Edit**.

4. In the Selected Connection Type list, select **Omnichannel Inventory** and move it to the Available Connection Type list.

5. Click **Save**.

6. Confirm that the information is correct, and click **Save**.

When a connection is deactivated, it no longer appears in the Tenant Connection List. However, depending on its connection type, it might not deactivate immediately. In that case, it appears in the Tenant Connection List with the status Pending Deactivation until it deactivates. When it's deactivated, a notification is sent to the System Administrator email address.

For information on troubleshooting the integration between B2C Commerce and Omnichannel Inventory, see Troubleshooting the Omnichannel Inventory Integration in the *B2C Commerce Infocenter*.