Scenarios

Scenarios are groups of locations that an order can be routed within, filters that exclude certain locations from different routing cases, and after-actions that control which steps Order Routing takes when determining whether that scenario is a match for shipment items. Fulfillment paths within routing strategies are usually made up of multiple scenarios, ranked by priority.

View All Scenarios

Scenarios are displayed as part of each fulfillment path summary in the routing strategy details. To view more detailed information, click **View Scenarios** on that page. This will display a list of all scenarios assigned to that path the following information and actions.

- **Scenario Details:** Click the scenario name to view more details and a list of the locations within the scenario.
- **Status**: Click the status toggle to activate or deactivate this scenario as needed. If disabled, it will be skipped during assignment.
- **Filters:** Each of the filters applied to the scenario are listed, with the ability to create a new filter or add/remove existing ones.
- **After-Actions:** Click the icon in the corner of a table column to change the after-actions that should be taken when the scenario is determined to be a match for the order (can fulfill entire order), a partial match (can fulfill some of the order items), or no match (cannot fulfill any items in the order). See the After-Action Logic section for an explanation of these options.
- Use the icons in the top right corner to delete, duplicate, or change the current rank of a scenario.

Direct Ship

This strategy for Direct Ship route attempts to match order items with fulfillment locations. When a match is located, the items are assigned. You choose how Order Routing behaves when items are partially matched or no match is available.

Warehouses

View 5 locations and 0 Filters
Created on 06/05/2024 by admin@kibocommerce.com
Last updated on 06/10/2024 by admin@kibocommerce.com

🔵 Active
⊕ Add/Remove Filter
📝 Create Filter

Match located	Partial match		No match	
Assign entire order to a location in this scenario	Split order by quantity, assign quantities without inventory to Backorder	📝	Split order by quantity, assign quantities without inventory to Customer Care	📝

Group 1

View 1 location and 0 Filters
Created on 02/24/2023 by admin@kibocommerce.com
Last updated on 06/05/2024 by admin@kibocommerce.com

🔵 Inactive
⊕ Add/Remove Filter
📝 Create Filter

Match located	Partial match		No match	
Assign entire order to a location in this scenario	Split order by quantity, assign if entire order can be fulfilled	📝	Split order by quantity, assign if entire order can be fulfilled	📝

Create a New Scenario

Begin creating a new scenario from the routing strategy details page by clicking **Add Scenario** in the top right of the desired fulfillment path.

This will direct you through four pages of the scenario creation flow. On the first page:

1. Enter the scenario's **Name** and **Description**.

Add Scenario

Step 1 of 4: Create scenario

Name Scenario

Description (optional)

Scenario settings

Determines scenario type, behavior, and sorting. Sorting by rank allows you to manually prioritize tenants. Sorting by distance tries to assign items to the closest tenant. Load balanced sorting attempts to distribute orders evenly among tenants.

Primary sorting (optional)

Secondary sorting (optional)

☐ Default scenario - new locations are added automatically

SELECT ROUTING STRATEGY AND SET LIMITS
A copy of this scenario will be created for each routing strategy selected.

☑ Direct Ship
☐ Transfer to Location

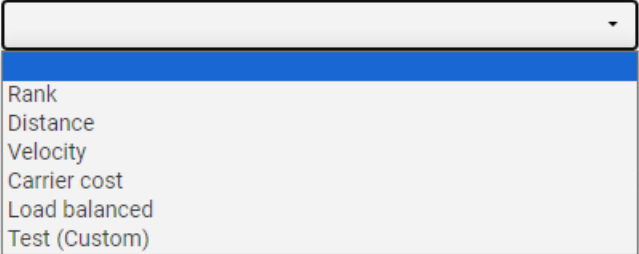Limit fulfillment to [   ] Shipments ▾ per Hour ▾

Continue

2. Configure the primary and secondary sorting options to determine how to prioritize locations within a scenario. In the event of a tie using the primary sort, the secondary sort will determine which location is preferred.
   - **Rank:** Allows manually prioritized locations by numeric rank.
   - **Distance:** Prioritizes locations closest to the shipping address.
   - **Velocity:** Based on maximum LTD (Life to Date) inventory values of the order items at each location candidate. Prioritizes locations with lower values to improve product turn and reduce markdowns by assigning orders to locations with the slowest moving inventory.

- **Carrier Cost:** Queries FedEx to get the actual shipping cost and prioritize locations with the lowest costs. Note that this does not calculate based on the rates of any other carriers.
- **Load Balanced:** Distributes order assignments evenly among locations.
- **Highest Available Inventory**: Aggregates available inventory across all requested items and prioritizes the location with the highest inventory count.
- **Lowest Available Inventory:** Aggregates available inventory across all requested items and prioritizes the location with the lowest inventory count. This is best used with Reverse Logistics routes, as it allows you to restock items at the locations that need it the most.

3. Indicate whether this should be the default scenario that new locations are automatically added to or not.
4. Select which route the scenario should be applied to. Selecting multiple routes will copy the scenario to each.
5. Click **Continue**.

If locations were not already selected before initiating scenario creation, you are able to add locations on the next page.

1. Select one or multiple locations by selecting the checkbox.
2. Click **Continue**.

Add Scenario

Step 2 of 4: Add locations

Continue

All Fulfillment Locations (100)

Location ID 🔍	Location Code 🔍	Name 🔍	Postal Code 🔍	Status ▾	Existing Scenarios	☐
100000	0	Location 0	Here California 93823	Active	2	☐
100001	1	Location 1	Great Falls MT 59405	Active	4	☐
100002	2	Location 2	Vancouver BC V5K 0A2	Active	2	☐
100003	3	Location 3	Havre MT 59501	Active	3	☐

↑ Top

All | 20 More

Continue

The next page allows you to add filters. If no filters are desired, just click **Continue**. To select and/or create filter(s), complete the following steps.

1. Select existing filter(s) if applicable, or click **New Filter**.
2. If creating a new filter:
   - Enter new **Filter Name**.
   - Select **Type**: Set up a custom value or choose an existing data point.
   - Select **Filter Attribute**: The parameter to base the filter on.
   - Select **Logic**.
   - Select **Comparison Property** or **Custom Value**.
3. Click **Continue.**

Add Scenario

Step 3 of 4: Add filters

Continue   New filter

☑ BO
If the backorderable flag is equal to true, attempt assignment.

Finally, you must configure the scenario's after-actions. For more information about after-action behavior and what these options mean, see the After-Action Logic section of this guide.

1. Select the preferred behavior that Order Routing should take in the event of only finding partial inventory for an order available in this scenario.
2. Select the behavior that Order Routing should take if there is no available inventory for an order in this scenario.

Add Scenario

Step 4 of 4: Add after-actions

Order Routing attempts to assign the full order before partial assignment is considered. After actions override the default failover behavior established in Configuration Center.

" If Partial inventory found Then: Try next scenario (default)▾ "

" If No inventory found Then: Try next scenario (default)▾ "

Save scenario

3. Click **Save Scenario**.

Edit an Existing Scenario

To edit a scenario's basic information from the routing strategy details:

1. Either click **Edit** on a scenario (shown below) or click **View Scenarios** and then a scenario's name.

2. This will display the scenario details. Click the **Edit** icon in the top right.

3. Enter the scenario's **Name** and **Description**.

Direct Ship

Name Scenario

Warehouses

Description (optional)

☐ Default scenario - new locations are added automatically

Limit fulfillment to [ ] Shipments ▾ per Hour ▾

Sort by Distance ▾ and Select method ▾

Cancel **Save**

4. Indicate whether the scenario is the **Default scenario** for new locations to be added to.

5. Select a **Sort** for this scenario, such as rank or distance.

6. Click **Save**.

Manage Scenario Filters

While viewing scenario details, click either **Create Filter** (which will take you to the filter configuration flow) or follow the below steps to update the filters currently assigned to the scenario:
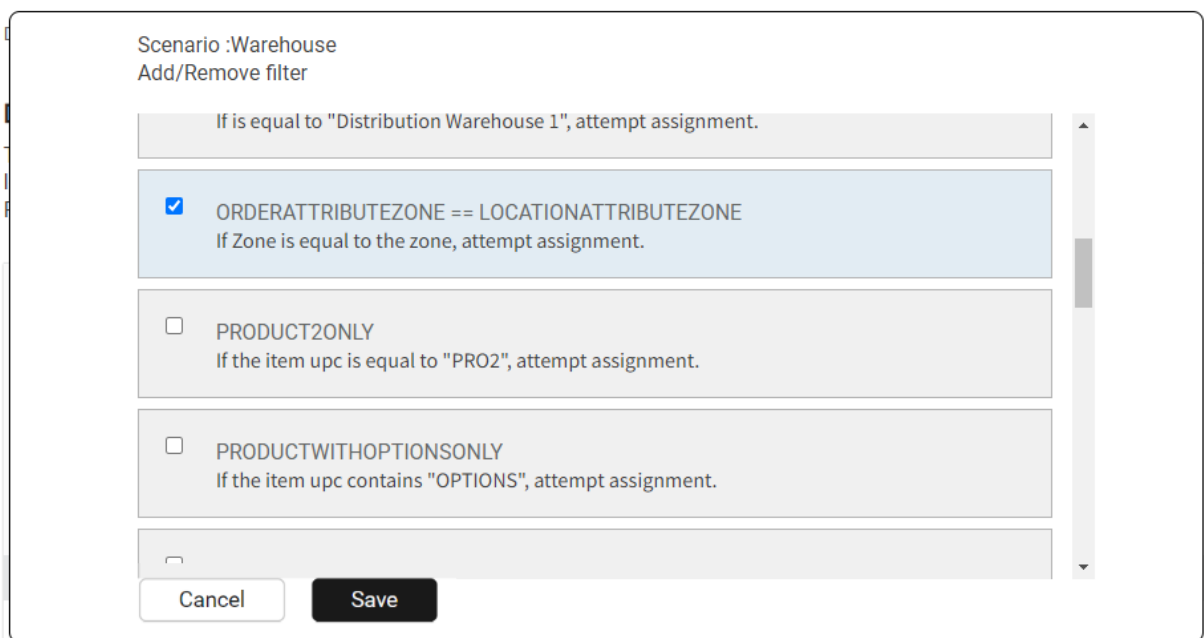
1. Click **Add/Remove Filter**.

Warehouses

Active

⊕ Add/Remove Filter

Create Filter
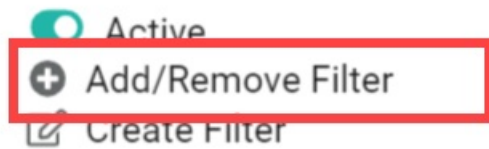
Sort by Distance

2. This will open a pop-up with all existing filters in your routing strategy. Click the checkboxes as needed to select filters you want to add and unselect filters you want to remove.

Scenario :Warehouse
Add/Remove filter

If is equal to "Distribution Warehouse 1", attempt assignment.

☑ ORDERATTRIBUTEZONE == LOCATIONATTRIBUTEZONE
If Zone is equal to the zone, attempt assignment.

☐ PRODUCT2ONLY
If the item upc is equal to "PRO2", attempt assignment.

☐ PRODUCTWITHOPTIONSONLY
If the item upc contains "OPTIONS", attempt assignment.

☐

Cancel   Save

3. Click **Save**.

Manage Scenario Locations

You can both add new locations and edit existing locations while viewing a scenario's details.

Add New Locations

To add new locations to a scenario from the routing strategy details::

1. Either click **Edit** on a scenario (shown below) or click **View Scenarios** and then a scenario's name.

2. Click **Add Locations** in the top right.

3. Select locations from the list by clicking their checkboxes.

Direct Ship

Warehouses

- Active
- Add/Remove Filter
- Create Filter

Sort by Distance

Match located	Partial match		No match	
Assign entire order to a location in this scenario	Split order by quantity, assign quantities without inventory to Backorder		Split order by quantity, assign quantities without inventory to Customer Care	

☐ All   **Add Location to scenario**   1 selected

	Location Code		Name		Postal Code		Status	
☑	0		Location Zero		00000		Active	

Viewing 1 of 1   More   **Add Location to scenario**

4. Click **Add Location to Scenario**.

Edit Existing Locations

To edit or perform other actions on scenario locations from the routing strategy details:

1. Either click **Edit** on a scenario (shown below) or click **View Scenarios** and then a scenario's name.

Direct Ship
View Scenarios
Last updated on 06/06/2024 by admin@kibocommerce.com

Candidate sort strategy: Minimize Shipments

- Active
- ○ Multiple assignments preferred
- ● Single assignment preferred

Add Scenario

Scenarios

⬆ Warehouses   Edit

⬆ Group 1   Edit

⬆ Group 2   Edit

2. Select at least one location using the checkbox in the table.

3. Expand the **Edit locations** dropdown and select the action you want to perform on the selected location(s). A common use of this is to place a location on hold (and then remove it from the hold). This will temporarily prevent any shipments from being assigned to that location, without fully deactivating the location.


After-Action Logic

When a scenario is being considered for assignment, order routing considers the locations within the scenario, the available inventory in each of those locations, and any filters set in the scenario. Then it will determine whether the scenario is a match (can fulfill entire shipment), a partial match (can fulfill some of the items), or no match (cannot fulfill any items). If a full match is found, the

shipment will be fully assigned within that scenario. This cannot be reconfigured.

In the event of a partial match, in which some inventory is available within the scenario but not the entire shipment, the most common behavior is splitting the shipment. If you don't want to split shipments, you can choose to try the next scenario, cancel the entire order, assign the entire order to Customer Care, or assign the entire order to Backorder instead.

Split Shipment Behavior

Shipments can be split based on line item or quantity by assigning available items to a location, and the remaining quantity either assigned to another location, cancelled, sent to Customer Care, or sent to Backorder. If split by line item, the entire quantity of a line item will always be assigned to another location. Splitting by quantity would allow some inventory of one line item to be assigned to one location.
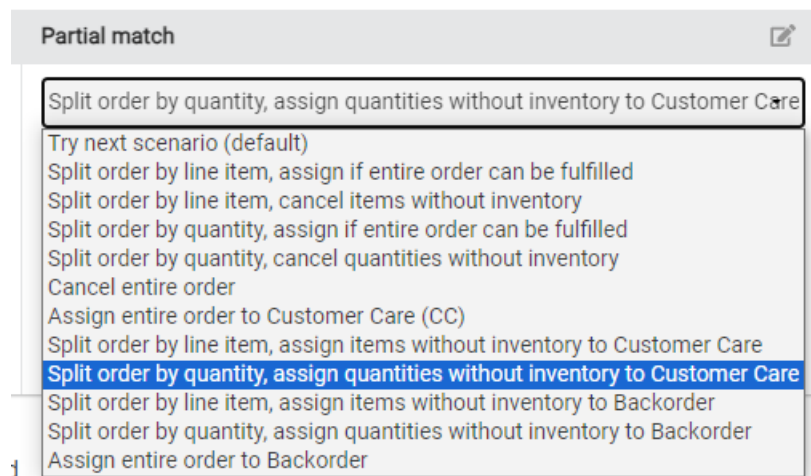
If a shipment will be split, then an additional setting for **Restart attempt for partial assignment** will appear. This determines where Order Routing will attempt to assign the remaining items. These options are:

- **Start Over at Beginning:** Go back to the highest priority scenario and try to assign the remaining items to a location in that scenario.
- **Current Scenario:** Try to assign the remaining items to any location within the current scenario that the split occurred in. If no location can fulfill the items, then move on to the next scenario.
- **Scenario Rank:** Try to assign the items to locations in the next scenario of the ranking order.

Partial match	✎

Split order by quantity, cancel quantities without inventory ▾

Restart attempt for partial assignment:
- ⦿ Start over at the beginning
- ○ Current group
- ○ Group rank

Cancel **Save**

ℹ️ Kibo Engineering can configure a limit that specifies the allowed number of order splits in the back-end. Contact Engineering or if you would like to enable this.

Ship-to-Home and Delivery Consolidation

If you have locations enabled for STH or Delivery Consolidation, then specific logic determines how to consolidate shipments:

- If a full match is not available, Order Routing will check whether any of the suggested routing locations are enabled for consolidation as a partial match. If so, then it will assign the parent shipment to the first consolidation location it finds instead of performing the usual after-action (such as splitting). It will then create transfers to fulfill all of the missing items from transfer-enabled locations. Thus, one single shipment will be sent to the customer from the consolidated location.
- If no locations have consolidation enabled, or there are not locations enabled to provide transfers, then it will proceed with the standard process of splitting the shipment.
- If an item is unavailable or on backorder, then a separate shipment will be created and reassigned for future delivery so that it does not block the available items from being consolidated and shipped. Likewise, any items that can't be successfully routed or is rejected from the parent location will follow the configured after-action logic such as being canceled or sent to Customer Care as a separate shipment.

When a shipment is being consolidated, it cannot be manually reassigned. There is no direct way to reassign the parent shipment through either manual or auto-assignment once the shipments have been created.

Additionally, if you are using Multiple Location Consolidation then you must create a filter that compares location relationships based on an extensible attribute and apply it to your transfer scenario(s) according to the instructions in the linked guide.