Extensible Order Routing

Extensible Order Routing allows an Admin user to select which custom product, location, customer and order attributes can be used in Order Routing. This provides the power and flexibility to set up order routing rules best suited to your unique business needs and determine the most optimum locations to fulfill the orders from.

Along with the generic attributes that are common in the retail industry, which are available out-of-the-box in routing filters, you can select custom attributes to apply in filter logic.

Use Cases

The following sections describe example scenarios in which extensible order routing may be useful with custom product, location, order, or customer attributes.

Customer, product, and location attributes can be used with the Reserve Inventory in Cart feature. However, extensible order attributes are not supported for reserved inventory.

Product Attributes

Using order routing to route products to a certain set of locations based on custom product attributes that you have defined may be useful in scenarios such as:

- Products that need warm weather packaging, based on a true/false attribute called "Perishable"
- Products that need two people to lift the package, based on a true/false attribute called "Two Person Lift Required"
- Products of a particular brand, based on a text attribute with options for "Brand"

Location Attributes

Using order routing to route products to a certain set of locations based on custom location attributes that you have defined may be useful in scenarios such as:

- Not routing shipments to an area with a weather event, based on a true/false attribute called "Weather Events"
- Not routing shipments to locations where the capacity is less than 50%, based on a number attribute called "Capacity"
Routing shipments to a location with the lowest cost of fulfillment, based on a number attribute called "Cost to Fulfill"

Routing shipments to warehouses with a two-person forklift, based on a "Lifts" string attribute with options for one, two, or six person forklifts

Order Attributes

Using order routing to route products to a certain set of locations based on custom order attributes that you have defined may be useful in scenarios such as:

- Routing orders with a BOPIS pickup time of 2:00 PM, based on a text attribute called "Pickup Time"

Customer Attributes

Using order routing to route products to a certain set of locations based on custom customer attributes that you have defined may be useful in scenarios such as:

- Routing shipments specially for Platinum customers, based on a text attribute called "tier" with options of "Platinum," "Gold," or "Silver"

Multiple Attributes

You can also route shipments based on a combination of attributes from the above topics. For instance, you could reference both product and location attributes in the following scenario:

- Perishable candy being routed to locations that offer insulated packaging, based on the true/false "Perishable" product attribute and the true/false "Insulated Packaging"

Enable Attributes for Order Routing

You must make the attribute available to Order Routing in the attribute configurations in order to use the attribute in routing filter logic. For more information about creating and configuring attributes in general, see the following documentation:

- Order Attributes
- Customer Attributes
- Product Property Attributes
- Location Attributes

In the settings of each attribute type, locate and toggle on the **Available as Order Routing Filter** and click **Save**. The below example shows the option for a product attribute.

⚠️ Attributes must include the "Property" type to be used in order routing. You can select more than one
attribute type, such as Property and Extra.

Extensible attributes are only supported for physical items (not digital or services).

Make sure that the attribute is not set to "Admin Only" in the display group.

This example shows the option for a location attribute:

```
<table>
<thead>
<tr>
<th>Value</th>
<th>Label</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Usually ships in 24 hours</td>
<td>24hrs</td>
</tr>
<tr>
<td>2</td>
<td>Usually ships in 24 to 48 hours</td>
<td>24-48hrs</td>
</tr>
</tbody>
</table>
```

This example shows the option for an order attribute:

```
General

Administration Name *

Capacity

Display Group *
Admin & Storefront

Options
- Available as Order Routing Filter
```

This example shows the option for a customer attribute:

```
General

Administration Name *

Pickup Time

Display Group
Admin & Storefront

Value Source
Admin or Shopper Entered

Options
- Required
- Hidden from shopper
- Available as Order Routing Filter
```
Create Attribute Filters in Order Routing

Once enabled, you will be able to select the attribute in routing filters. When configuring a filter, you will be able to define logic based on that attribute by selecting the filter type "Custom Value."

These sections can be expanded to display the out-of-the-box attributes as well as your custom attributes for each topic:
The possible logic conditions will change depending on the data type of the attribute you selected. For logic conditions that support multiple values, such "or" and "any of," you will be able to select multiple values from the dropdown. For logic conditions that support only single conditions, like "equals" or "not equals," you will only be able to select one value.

If you select a list filter type, it will support the "in" or "not in" logic conditions. For example, if your filter attribute was Material then you could use "in" to compare it against the Iron, Steel, and Aluminum custom values. If the item matches any one of those values, it will attempt assignment.

Once logic has been selected for the attribute and the filter created, it will be displayed on the Filters page and can be added to any location groups.