Order Routing, Splitting & Hopping
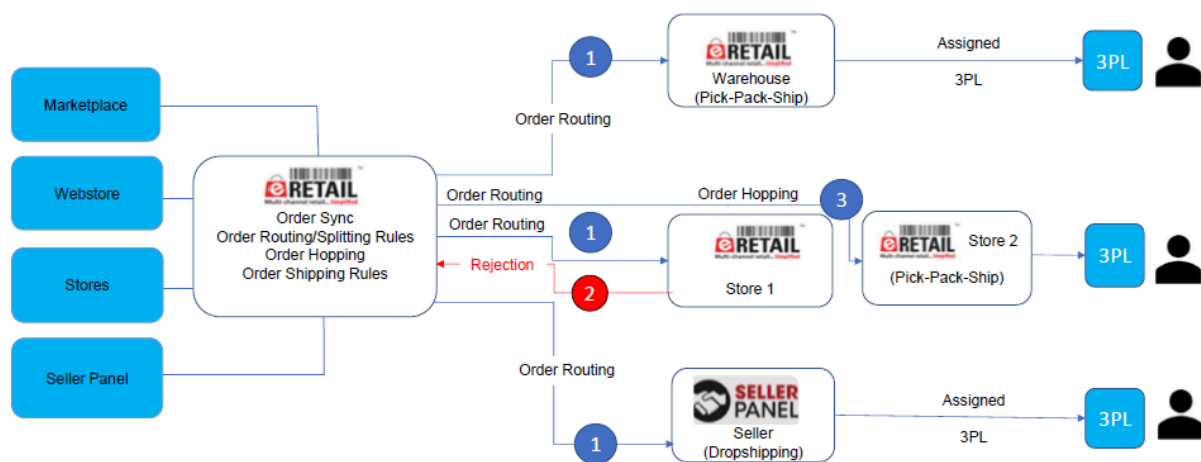
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How to route order in vin-eRetail?

Vin-eRetail provides the functionality to route an order to an optimal warehouse in terms of nearest location, maximum inventory, lowest delivery cost, city, region, priority, etc. It can be setup with the help of the below OMS Rules:

1. Order Routing Rules
2. Order Splitting Rules
3. Order Hopping Rules

Order Splitting: Order Splitting refers to the practice of dividing a large order into a series of smaller ones. Order gets split automatically on the order allocation as per the Split rules.

Order Hopping: Order Hopping refers to the process of hopping or transferring the order to the next priority fulfillment location if the order is not accepted or rejected by a particular location.

1. Order Routing

Navigation: Sales > OMS Rule > Order Routing/Split rule

The Order routing rule screen shows the already created rules along with their active/inactive status, preference, and option to remove the rule as well.

- Rule name refers to the name of the rule. e.g., "Route Rule".
- On/Off shows the status of the rule. If the rule is active, then the status will be on else the status will be off.

- Up (green) and down (red) arrow key is used to set up the priority of the rule. The green arrow is used to increase, and Red arrow is used to decrease the priority of a rule.
- The setting icon is used to setup the rule or to make any changes in the existing rule.
- Delete Icon is used to delete any rule.
- Add New Rules is used to add a new rule.

Order gets routed automatically on the order allocation as per the Order Routing rules.

Automatic action includes:

- Set Source WH
- Not Set Source WH

Action	Description
Set Source WH	This action is used to set the source WH automatically at the SKU level.
Not Set Source WH	This action is used not to set a WH that meets the All and Any conditions.

If the user has defined the OMS rules as order routing, then an order needs a condition where an order is being allocated.

How to add a new Order Routing/Split rule?

The user needs to select the "Add new Rules" button for adding a new routing rule in the given below screen.
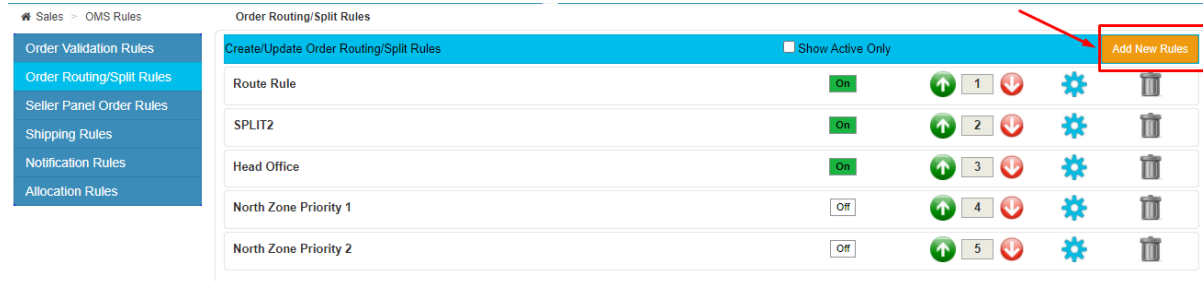
In the Add Rule dialog box, enter all the fields including condition and action.

Rule screen:

- **Rule Name –** This is a free text field and the user can name it as per his comfort. E.g., split rule #1.
- **Active/Inactive –** User can choose to activate or discontinue the use of rule with this dropbox
- **Channel Name –** Location from where the order is created.
- **Allow order splitting rule –** If this checkbox is clicked, the system should allocate the location at the line level.
- **Check Inventory Availability –** If this checkbox is clicked, then the system should have the inventory validation before allocation.
- **All conditions –** All the conditions in this section will get fulfilled, then only order routing will be fulfilled. Click on "New" to add the condition(s).
- **Any condition –** Order will get routed if any one of the below conditions are met. Click on "New" to add the condition(s).
- **Action –** Choose "Delivery Split" from the dropdown box. Another field with a dropdown box will appear. Choose either "Set the max delivery quantity" or "Set max delivery weight." Another box will appear where the user needs to enter the quantity or weight, respectively.
- Click on "Save" the Rule.
- Users can click to "Reset" the rules if any amendments are required.

There are many methods by which an order can be routed:

- Max Inventory
- Custom Pref
- Same City
- Same Region
- Setting specific Location
- Nearest Location

Max Inventory

To apply the Max Inventory rule to route an order, the user needs to create a route rule and needs to select "Max Inventory" under the action section. When Max Inventory is selected, then upon allocation, the WH which have the highest inventory of the ordered item will get assigned as the source WH. The user needs to select "Select Source WH" and then "Max Inventory".

As per this rule, if the location of the order is Head Office and the order amount is greater than 0 then set the WH as the source WH which has the highest inventory of the ordered items.

The below mentioned order is of Head Office location and the order amount is greater than 0, so the "Max Inventory" rule will get applied and set the WH with max inventory as the source WH.

The inventory of the ordered item is as below mentioned:

Available Qty	Warehouse
• **1000**	• Head Office
• **1100**	• JX Karawaci
• **1050**	• Test WH
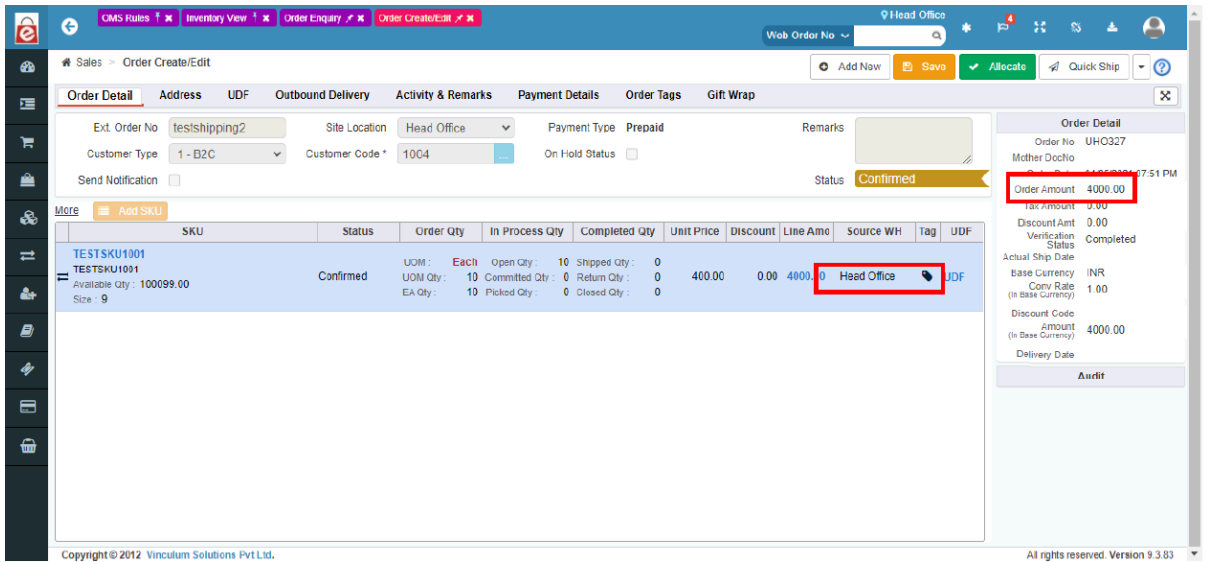
So, upon order allocation, the source WH will get updated to JX Karawaci as it has Max Inventory of the ordered item.
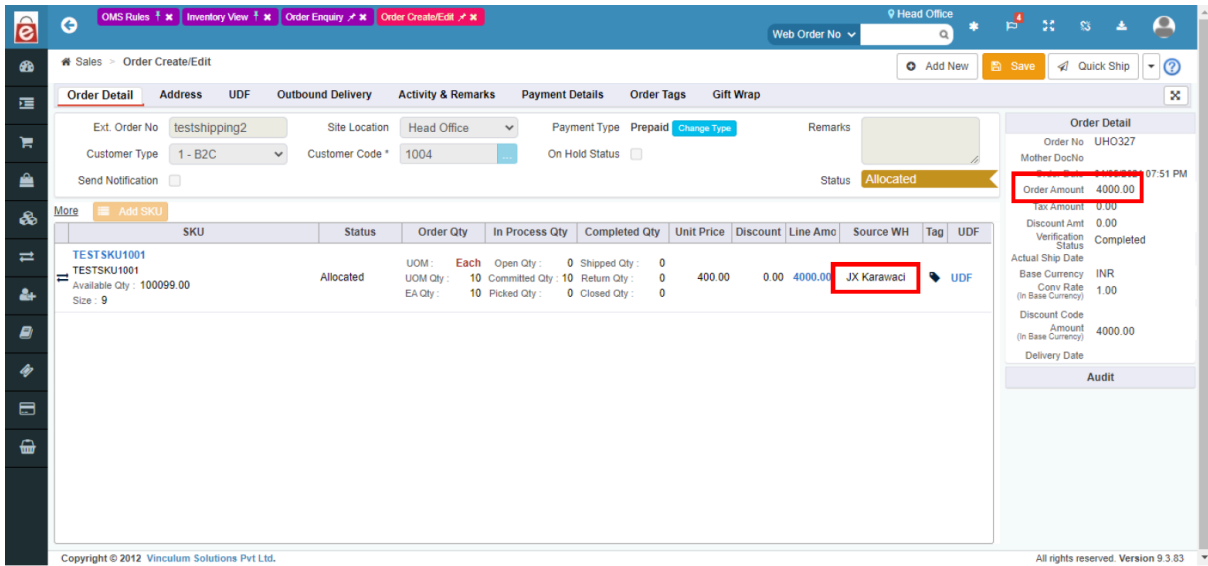
Custom Pref

Custom Pref is one of another way to route the order to WH. To apply the CUSTOM PREF rule to route an order, the user needs to create a routing rule and needs to select "Set Source WH" and "CUSTOM PREF" under the action section. Custom Pref works based on State, City, Zip Code, and Location (WH). The user needs to upload the data under the zoneorderpriority table or via the Bulk Upload screen.

If the user wants that the customer whose Zip Code is 123456, then set the Source WH as Head Office. In that case, State and City need to fill with * at the time of Bulk upload.

	A	B	C	D	E	F	G
	Mode	Country	State	City	ZipCode	Priority	LocCode
2	ADD	107	*	*	201301	1	UWH

In the same way, the user can upload multiple entries under the zoneorderpriority table. Users can either select Zip code, State, or City while creating the entry and can be left the rest 2 parameter as *.

As per this rule if the location is Head Office and the order amount is greater than 0, then set the source WH based on CUSTOM PREF (zoneorderpriority).

Whenever an order is being routed based on Custom Pref, then either the State, City, or Zip Code is matched with the entries under the zoneorderpriority table according to the priority, and if any entry matches then the corresponding Loccode is assigned as the Source WH of the Order. Let consider the below mentioned one entry under the zoneorderpriority table.

According to this if the Zip Code of the Ship address is 201301 then set the Source WH as UWH-JX KARAWACI.

Mode	Country	State	City	ZipCode	Priority	LocCode
ADD	107	*	*	201301	1	UWH

Let us create an order for the Head Office location with an order amount greater than 0 and Zip Code as 201301.

In the Address tab, add all the information in the * mandatory fields.

Upon allocation, the source WG gets updated to the UWH- JX KARAWACI as the ZIP CODE 201301 matches with the entry in the zoneorderpriority table.

Same City

- It is the third way to route an order to a WH. To apply the SAME CITY rule to route an order, the user needs to create a routing rule and needs to select "Set Source WH" and "SAME CITY" under the action section. The system matches the Ship city of delivery address with the location master city. If the city matches, then the rule considers the Stores/ WH matching with the city. If further conditions are applied like location type and location tags, the system allocates only the location fulfilling the condition i.e., the location type or tag selected.

- This rule allows the user to route the orders to the store/WH locations present in the delivery address city.

- If no store is fulfilling the criterion, then no Store/ WH will get allocated from this rule and the system will check the next rule and if multiple stores are fulfilling the criterion. Then the system should allocate to the nearest store.

- If inventory check is on, then the system should also have the inventory validation before allocating and If the order split is on, then the system should allocate the location at line level.

- Order Accept/reject flow should also be applicable here as in other rules. If the store manager rejected the order, the store location should not get allocated and other stores fulfilling all the conditions should be allocated.
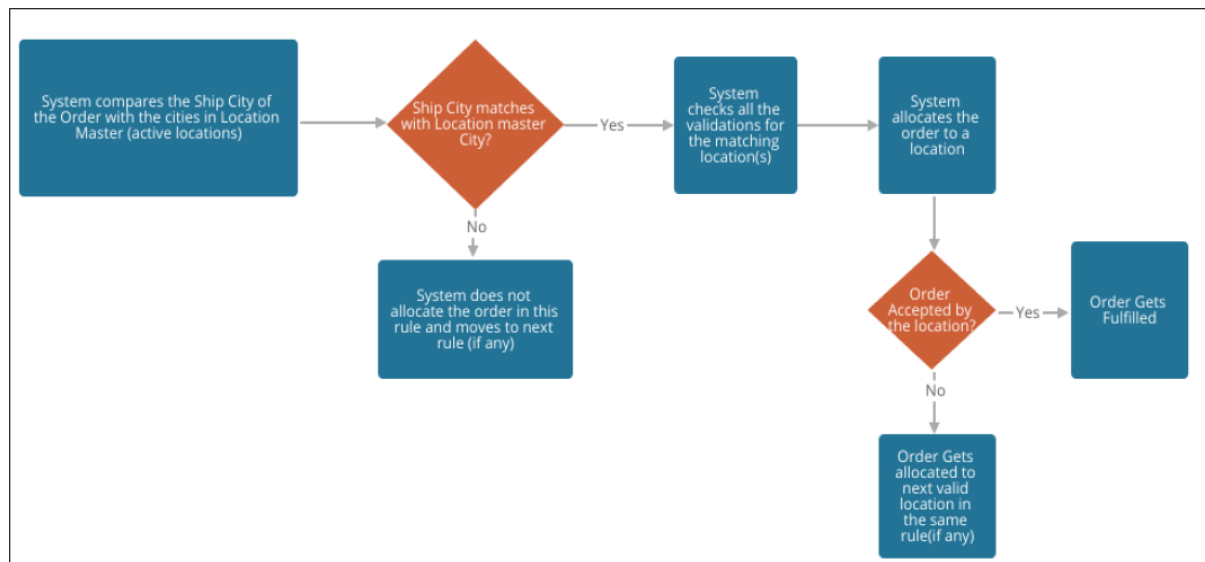
Creating a rule in the same city

To set the SAME CITY rule, the user needs to select "Set Source WH" and "Same CITY" under the action section.

As soon as the user selects the Same City option, a new filter "Location Filter Criterion" will appear.

Location Filter Criterion has two options:

- Location Type
- Location Tag

Location type can be either Store/ WH or Franchise and if the user selects the Same city action followed by Location Type as WH, then the system will check only the Warehouses that are in the same city.

Location tags can be created by navigating to the Master > Other Maters > Tag.

Users can create a location tag from here and can assign the same location tag to a location under the "Location Tags" section.

All the active location tags will appear under the Location Filter Criterion after selecting the Location Tag and the user can select either one or more than one Location Tags.

If the user selects the Same City under the action section followed by Location Tag and selects the location tag loc33 and save the rule then the system will check the warehouse that is under the Same City and is having the location tag as loc33 if there is any such location, then that vary location gets updated as the Source WH of the order upon allocation.

Same Region

It is the fourth way to route an order to a WH. To apply the SAME REGION rule to route an order, the user needs to create a routing rule and needs to select "Set Source WH" and "SAME REGION" under the action section.
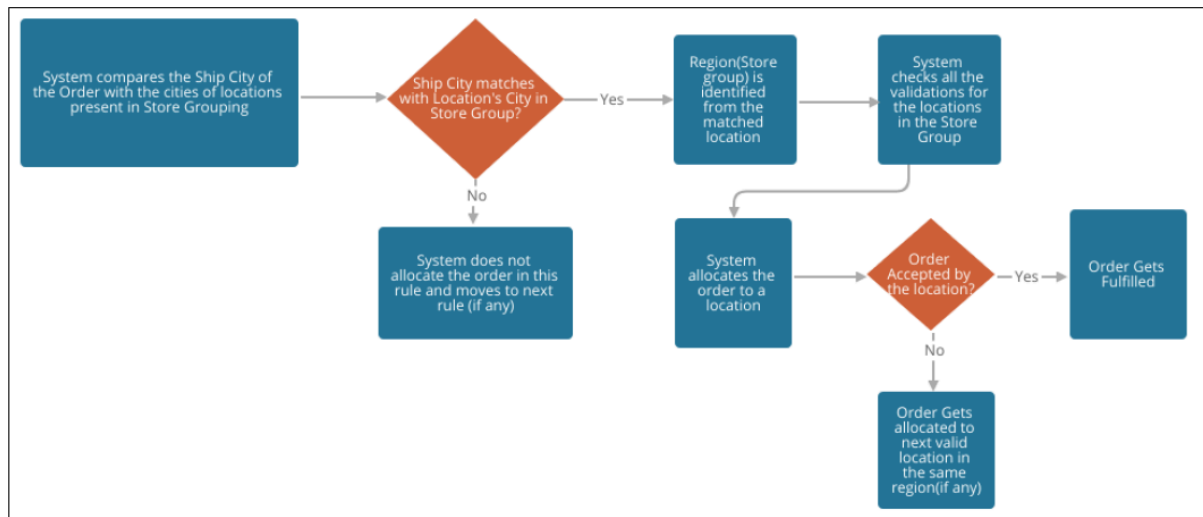
This rule allows the user to allocate the orders to the stores/WHs present in the delivery address Region. A Region is a group of locations created by the Store grouping screen. If required further conditions can also be added like Location tags, Location type to filter required stores/WHs for order allocation.

The system matches the Ship city of delivery address with the city of locations in Region master (Storegrpdetails) and If the city matches, then the rule considers all the stores of the region linked with that city.

If no store in the region is fulfilling the criterion, then no store will get allocated from this rule and the system will check the next rule and if the multiple stores in the region are fulfilling the criterion, then the system should allocate to the nearest store.

If further conditions are applied like location type and location tags, the system allocates only the location fulfilling the condition i.e., the location type or tag selected.

If multiple tags are selected, then the location should have both tags.

Setting specific location

User can also select a particular WH which meets a particular set of conditions. So, whenever an order will be placed then the Source WH will be selected as per the rules selected by the user.

To decide the WH based on the routing rule, the user needs to create a routing rule and needs to select "Set Source WH" and then the user needs to select a particular WH from the dropdown under the action section.

The screenshot shows a sample order routing rule that sets a particular WH.

As per this rule, whenever an order will be created with the source WH at the SKU level (Channel Name) as UHO-Head Office and the order type is Prepaid then the Source WH at the SKU level will be set to UWH- JX Karawaci.

Check Inventory Availability flag is used to check the inventory of the SKU. If this flag is checked and inventory of the SKU is not present at the WH mentioned in the action section, then the rule will not get applied and vice-versa.

Set Source WH is the action and Order Type, Order Amount, Site Code, etc. are the conditions.

An order is created whose Payment type/order type is Prepaid and the source WH at the SKU level (Channel Name) is UHO-Head Office.

Since the order information matches with the All condition as per the order routing rule, so automatic actions will take place upon allocating the order.

- Set Source WH will be set to – JX Karawaci

Nearest Location

Users can also set the Source WH or can route an order based on the nearest location. The system will the WH as the Source WH which will be closest to the shipping address. Pin Code, latitude and longitude are used to determine the distance between the locations.

To apply the NEAREST LOCATION rule to route an order, the user needs to create a routing rule and needs to select "Set Source WH" followed by "NEAREST LOCATION" under the action section.

Seller Panel Order

Seller Panel Order is another functionality of the OMS Rules. Seller Panel Orders are those orders in which the order is placed in the marketplace and is fulfilled by the sellers.

In Seller Panel Orders, the order is not fulfilled by the customer. Whenever an order is pushed to eRetail via integration and the vendor type of the line items of the order is either Marketplace or B2S2, then those orders are treated as Seller panel Orders.

For Seller Panel Orders, the "mode" parameter under the Create Order API should be Dropship.

- Order is fetched or pushed into the eRetail Integration layer.

- The primary vendor is derived from Order item lines.
- All order item lines with the primary vendor as B2S2/MP are considered as Seller panel orders.

After this, there are two scenarios:

1. The vendor is pre-decided and is passed in order by an external system.
    a. Order and vendor information will be passed to OMS Rule as earlier.
    b. OMS rule will check if the vendor is a parent vendor.
    c. If yes, proc will check if the Child Vendor rule is present for the parent vendor. If yes, it will set the child vendor as the seller.
    d. If No, proc will set the Parent vendor only as the seller.
2. The vendor is not pre-decided by the external system.
    a. In this case, the vendor information is not passed by the external system in order.
    b. The application will check the seller panel order rules to select the seller.
    c. If there are no rules, then the application will set the primary vendor of the item as the seller.

Navigation:

Sales > OMS Rules > Seller Panel Order Rules

Creating a Seller Panel Order Rule

In the given below screen, the user must select the "Add New Rules" button.

In the Add Rule dialog box, enter all the fields including condition and action.

If there is an order whose order amount is greater than 0 then the vendor/ seller of the item will be set to Cubezoid solutions Pvt Ltd.

Seller Panel OMS Rules for routing to the seller will be based on:

- Nearest Location
- Max Inventory
- Primary Seller
- Fixed (Seller name)

The "Allow order splitting" flag is used to split the order and the "check inventory availability" flag is used to check whether the inventory of the item.

- To set the seller based on the nearest location, the user needs to select the "Nearest Location" option from the dropdown under the action section.
- To set the seller based on the max inventory, the user needs to select the "Max Inventory" option from the dropdown under the action section.

When the vendor is not pre-decided by the external system and there is no OMS rule set for seller panel orders, then the system will set the primary seller of the line items as the seller.

When vendor information is pre-decided by the external system and there are no OMS rules, then the vendor will be set as decided by the external system. If OMS rules for seller panel orders are present and the order matches the rule condition, the system will set the vendor as mentioned in the rule.

3. Order Hopping

Order hopping is an order routing OMS rule in vin-eRetail that helps the user in routing the orders to next location(s) if it gets rejected at previous location(s).

Order hopping refers to the process of transferring the order from one fulfillment center to the next fulfillment center in case the previous location is unable to fulfill the order and rejects it. The order gets transferred to the next location as per the Hopping rule(s) set in the OMS rules. So, the order will be hopped until it is fulfilled by anyone store OR it is rejected by all the stores as defined by the seller.

Benefits of Order Hopping:

- To increase the fulfillment rate and sales of a brand
- To reduce operating cost by providing an opportunity to the stores to route the order to the most nearby location as per the rule
- To give a seamless omnichannel experience to the user

Process:

Order Hopping OMS Rule

- To achieve Order hopping functionality, the users need to set up the rule under eRetail. OMS rule will decide that what will be the flow of the order from Store 1 to Store "n" if not accepted at the first store or previous store(s).
- Users can add multiple OMS rules for order routing and can set up the priority of the order routing rules.

Navigation: Sales > OMS Rules > Order Routing/Split rules

- Click on the "Add new Rules" button on the top right and create a new Hopping rule.
- If the **Source WH or Channel Name** of the order is "Head Office" and the **Order Type** is "Prepaid," then the Order should get routed to the "JX Karawaci" site. The Priority of this rule is set to 1.

- If the **Source WH or Channel Name** of the item is "Head Office" and the **Order Type** is "Prepaid," then the Order should get routed to the "DWH- Delhi site." The Priority of this rule is set to 2.

- Now, a prepaid order is created with the channel name – "Head office."

- As we confirm the order, the order will automatically be allocated to "JX Kawaraci" location as per the Hopping Rules set#1.

- And if the order is rejected from "JX Kawaraci" warehouse then it will be routed to the "DWH Delhi" warehouse location as per Hopping Rule #2.

- In the same way, the user can add multiple rules and can set the priority of each rule. Whenever an order will get allocated, the system will first check the rule having priority 1, if the order is accepted by the location (as configured in the rule), then the loop will end, and the system will not check the further rules. In case, the location of the rule having priority 1 rejects the order, then the system will check the rule having priority 2 and so on

Order Hopping Vin-eRetail Desktop app

- To achieve Order Hopping in Vineretail Desktop App, the seller must download the Vineretail Desktop App.
- Once the user installs the application, the user needs to login into the app.

Label	Description
API URL	API URL refers to the URL of the Vin-eRetail portal URL
API Owner	API Owner refers to the owner of the organization
API Key	It refers to the API key generated under the Manage API screen of the vin-eRetail portal
Organization Code	It refers to the org code like USPL, SWGY, etc.
Location Code	It is the dropdown and will show all the location upon clicking on the load icon
Zip code	It refers to the Pin code of the location on which the user wants to login

How to generate API Key?

- To access the desktop app, some configurations need to be done in the Vin eRetail portal.
- The user needs to create an API which the user will enter under API Key while accessing the desktop app.
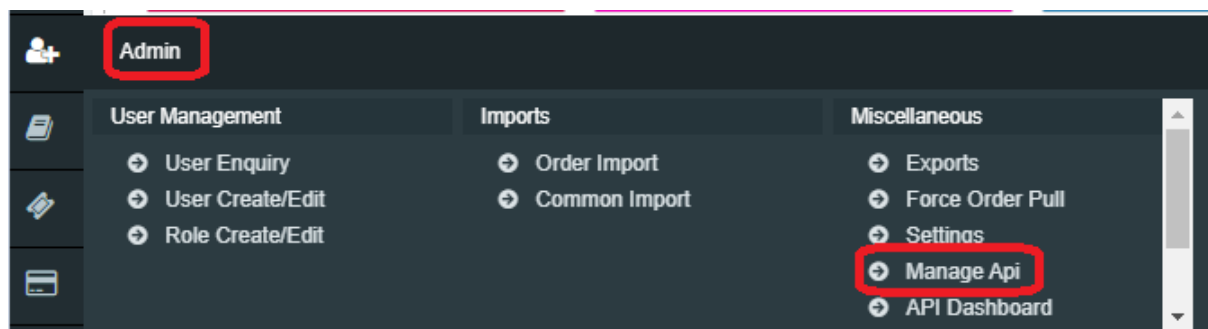
- To create the API, the user needs to login into the Vin eRetail portal and go to Admin > Manage API
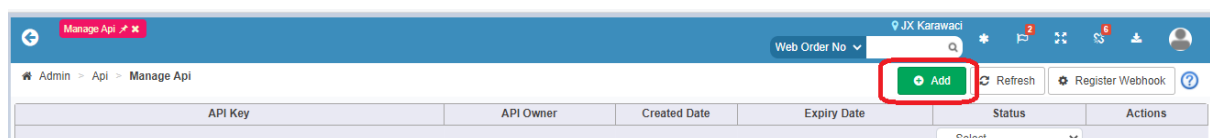
- Click on "Add" button on the top right.

- After clicking on the "Add" button, the user needs to select API Type as "All" and then needs to add the below mentioned API from the API Name Dropdown by providing the access Right checkbox. (Contact your Account Manager for the API details)

- Once all these API Names are added and the user clicks on the "Save" button, the API key will get generated and the same API key needs to be entered while accessing the desktop app.

- Once the API key is entered on the desktop app, the user will be able to login to the desktop application.

- Below snapshot is an example of how the landing page of the desktop app will look like:

Label	Description
Order No.	It shows the Ext. Order No of the order placed in the eRetail portal
Line No.	It shows the no of line items of an order
Channel Name	It shows the site location
Order Amount	It shows the total order amount
COD/ Prepaid	It shows whether the order type is Pre
SKU Code	It shows the SKU code of the ordered SKU
SKU Name	It shows the SKU Name
Qty	It shows the quantity of the line items
Image	It shows the image of the line items
Click to View address	It shows the ship to address of the customer
Username	It shows the name of the user.

Action Buttons

- **Acknowledge:**   It is used to accept or acknowledge any order.

- **Reject:**   It is used to reject any order.

- **Refresh:** It is used to refresh or repull the orders.
- **Checkbox:**   It is used to select the order(s).