

Cisco Spaces: Engagements App

Cisco Spaces functions as a Wi-Fi Beacon that identifies the customers in a Cisco Spaces enabled premises and sends notifications to the customers and business users, based on the engagement rule defined.

This chapter describes how to create the engagement rules that enable you to send notifications to the customers when they are near your business premises. A customer can be a user who has purchased from your business premises earlier, a potential buyer, or a visitor. You can also configure engagement rules to send notifications to your business users such as employees or to an API end point. For example, you can configure an engagement rule that informs your customer care representative when a privileged customer enters the premises so that the customer care representative can provide value added services to the customer.

You can configure to send the notification based on the customers connectivity to your Wi-Fi.

Note An engagement rule is applied for all the SSIDs defined for the locations specified in the rule.

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Prerequisites for Creating an Engagement Rule

- To send notifications, you must do certain configurations in your wireless network system.
  - If your wireless network is Cisco Meraki, do the configurations mentioned in Configuring Cisco Meraki for Notifications and Reports.

- If your wireless network is Cisco AireOS or Cisco Catalyst, do the configurations mentioned in Configuring Cisco Wireless Controller (without Cisco CMX) for Notification and Reports
- If your wireless network is Cisco Catalyst, do any of the following configurations based on the mode and connector .
  - Configuring Cisco Catalyst 9800 Series Wireless Controller (Local Mode) for Captive Portals and Engagements Apps Using CLI
  - Configuring Cisco Catalyst 9800 Series Wireless Controller GUI (Local Mode) for Captive Portals and Engagements Apps
  - Configuring Cisco Catalyst 9800 Series Wireless Controller GUI (Flex Mode or Mobility Express) for Captive Portals and Engagements Apps

- To specify the locations for which the engagement rule is applicable, you must define the location hierarchy. For more information on defining the location hierarchy, refer to Location Hierarchy.
- To specify the tags for which the rule is applicable, you must define the tags. For more information on creating the tags, refer to the Create or Modify Tags.
- To send to an external API the details such as first name, last name, and so on of the customers who have signed into the captive portal, you must configure the Data Capture form in the captive portal. Without the Data Capture form, only the information such as device mac address will be send to the external API. For more information on configuring a data capture form, refer to the Add a data capture form to a portal.

Creating an Engagement Rule

The Engagement Rule refers to the conditions based on which the notifications are sent to the target users. You can create the engagement rule for your customers and business users such as employees or API endpoints.

You can set the frequency at which the notification is to send. You can also define the criteria that must match to send the notification. You can configure to send the notification to a single user or a group of users in multiple locations.

For customers, you can send the notifications through SMS or e-mail. For business users, you can send the notifications through Cisco Webex Teams, SMS, e-mail, or to an external API. For customers and business users, you can configure to send the notifications based on the connectivity of the customer to an SSID. You can configure more than one notification type for an engagement rule, so that the user gets notification in more than one format. This increases the probability of notifications to be noticed by the user.

Creating an Engagement Rule for a Consumer

You can send notifications to a customer through SMS or e-mail.

You can also send customer notifications through Via App Push Notification if an app channel is configured.

To define an engagement rule to send notifications to the customers, complete these actions.

Procedure

Step 1 In the Cisco Spaces dashboard, choose **Engagements**.

Step 2 In the **Engagements Rules** window, click **Create New Rule**.

Step 3 In the **Rule Name** field, enter a name for the engagement rule.

Step 4 From the **When a user is on WiFi and** drop-down list, choose any of the following:

- **Entering a Location**: Choose this option if you want to send the notification when a visitor connected to the Wi-Fi enters the location.
- **Away from the Location**: Choose this option if you want to send the notification when a visitor connected to the Wi-Fi is away from the location for a specified time. If you are selecting this option, from the **For** scroll list, choose the number of minutes a visitor needs to be away from the location for sending notifications.



Note

- The **Exiting Location** option is no more available. If you are editing an existing Engagement Rule with **Exiting Location** configured, the **Choose User Activity** drop-down list will appear without any selection. You must choose the required option from the **Choose User Activity** drop-down list to save the rule successfully.
- Even if a visitor is physically present in the location, but gets disconnected from the Wi-Fi for the minutes specified in the **For** scroll list, the visitor will be considered for sending notification.

- **Present at Location**: Choose this option if you want to send notifications to a visitor who is connected to the Wi-Fi and is present at the location for a specified duration or at a particular time. If you choose this option, additional fields appear where you can mention the duration or time that needs to be met by the customer to get filtered for this rule.

Step 5 In the **LOCATIONS** area, specify the locations for which you want to send the notifications.

You can configure to send notifications for the entire customer name or a single or multiple locations such as group, floor, or zone. You can add the locations of diffrerent wireless networks such as Cisco Meraki, Cisco Wireless Controller, and so on in an Engagement rule.

You can again filter the locations for which the notification is to send based on the metadata defined for the selected location or its parent or child locations. You can either send the notifications for the locations with a particular metadata or exclude the locations with a particular metadata. For more information on defining the locations for the engagement rue, refer to the #unique_194

Step 6 In the **IDENTIFY** area, specify the type of customers for whom you want to send the notifications.



Note You can filter the customers for whom you want to send the notifications based on whether the customer is an opted in or not opted in user, the tags the customers belong to, and the number of visits made by the customer. You can apply all these filters or any of them based on your requirement.

To specify the customers for whom the notification is to send, perform the following steps:

a) If you want to filter the customers by the Opt In Status, check the **Filter by Opt-In Status** check box, and choose whether you want to send the notifications for opted in users or not opted in users.
b) If you want to filter the customers based on tags, check the **Filter by Tags** check box.



Note You can filter the tags in two different ways. Either you can specify the tags for which the notifications are to send or you can specify the tags for which the notifications must not be sent. You can choose the best filtering method based on your requirement. For example, if you want to send the notifications for all tags expect for one tag, it is easy to opt the exclude

c) If you want to filter the customers based on the number of visits made by the customer in the selected locations, check the **Filter by Previous Visits** check box. Click the **Add Locations** button. In the **Choose Locations** window, specify the locations of which the customer visit needs to consider for filtering. In the following fields, mention the number of visits and duration required to send notifications.

Step 7 In the **SCHEDULE** area, specify the period for which you want to apply the rule.

a) Check the **Set a date range for the rule** check box, and in the fields that appear, specify the start date and end date for the period for which you want to apply the engagement rule.
b) Check the **Set a time range for the rule** check box, and in the fields that appear, specify the time range for which you want to apply the engagement rule, within the date range specified.
c) If you want to apply the engagement rule only on particular days, check the **Filter by days of the week** check box, and from the list of days that appears, click the days on which you want to send the notifications.

Step 8 In the **ACTIONS** area, perform the following steps:

a) From the **Notify** drop-down list, choose **Consumer**, and from the adjacent drop-down list choose any of the following:

- **Only Once**—The notification is sent only once to a customer.
- **Once In**—The notification is sent more than once to a customer based on the notification frequency specified. In the additional fields that appear when you choose this option, specify the notification frequency.

b) Specify the mode of notification. You can send the notification to the customers through push notification, SMS, or e-mail. For more information on the notification types, refer to Notification Type for a Consumer, on page 16.



Note For **Via Email**, the e-mail ID entered in the **From** field must be included in the allowed list for e-mail IDs. To include the e-mail ID in the allowed list, contact Cisco Spaces support team. If you do not want to use a specific e-mail ID, you can use the default allowed e-mail ID **no-reply@dnaspaces.io**. However, the default ID is not displayed in the dashboard automatically. So, you have to enter it manually.

The summary of the rule is shown on the right side of the window.

Step 9 Click **Save and Publish**.

The rule gets published and listed in the Engagement Rules page.

Note If you do not want to publish the rule now, you can click the **Save** button. You can publish the rule at any time later by clicking the **Save and Publish** button. Also, you can publish the rule by clicking the Make Rule Live icon at the far right of the rule in the Engagement Rules page.

Use Case: Engagement Rule for Customers

The retail store ABC has outlets across Europe. As part of its summer sale, ABC has decided to provide some offers to its customers. The offer is only for the customers visiting the ABC outlets at location A and floor 1 at location B. All the customers who had visited any outlet of ABC at least 5 times in the current year are eligible for the offer. ABC wants to send notifications regarding the offers to the customers who had visited any of its outlets minimum 5 times during the current year. The notifications need to send when the customer enters location A or Floor 1 of location B with connected to the Wi-Fi. The notification is to send only on weekends as the offer is only for weekends. The notifications are to send only for a fortnight for the opted-in users. ABC wants to send the notifications during each visit through e-mail.

To meet the preceding scenario, perform the following steps:

Procedure

Step 1 Log in to Cisco Spaces.

Step 2 Create the location hierarchy with all the locations of ABC.

Step 3 In the Cisco Spaces dashboard, click **Engagements**.

Step 4 On the **Engagements** page that appears, click **Create New Rule**.

Step 5 In the **Rule Name** field, enter a name for the engagement rule.

Step 6 From the **When a user is on WiFi and** drop-down list, choose **Entering Location**.

Step 7 In the Locations area, click the **Add Locations** button for choosing the location, and select location A, and Floor 1 of location B.

Step 8 In the **IDENTIFY** area, do the following:

a) Check the **Filter by Opt-In Status** check box, and choose **Only for opted-in Visitor**.

b) Check the **Filter by Previous Visits** check box, and click the **Add Locations**button. Check the customer name (root name) check box to consider the visit to all of the locations of ABC, and click **Done**.

c) From the following drop-down lists, choose **Atleast, 5 Times in This Year**.

Step 9 In the **SCHEDULE** area, do the following:

a) Check the **Set a date range for the rule** check box, and specify the date range for the fortnight for which you want to provide the offer. Set the time also, if required.

b) Check the **Filter by days of the week** check box, and click **Sat** and **Sun**.

Step 10 In the **ACTIONS** area, do the following:

a) From the **Notify** drop-down list, choose **Consumer**.

b) From the adjacent three drop-down lists, choose **Once in, 1**, and **Visits**, respectively.

c) Check the **Via Email** check box.

d) In the **From Name** field, enter the email name that must be displayed to the customer, and in the **From Email** field, enter the email ID that must be displayed to the customer.
e) In the **Subject** field enter a subject for the email. If required, edit the message in the following text box.
f) Check the **Via SMS** check box, specify the SMS gateway. If required, edit the content in the following text box.



Note This configuration is to send the notification even if the app notification fails. In addition, the customers who are not an app user, get the notification through SMS.

Step 11 Click **Save and Publish**.

The rule gets published.

Creating an Engagement Rule for a Business User

Before creating an engagement rule, ensure that the prerequisites are met. For more information on the prerequisites to create an engagement rule, refer to the "Prerequisites for Creating an Engagement Rule" section.

You can send notifications to the business users such as employees through Cisco Webex Teams, SMS, or e-mail. You can also send notifications to an external API.

To define an engagement rule to send notifications to business users or an external API, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, choose **Engagements**.

Step 2 On the **Engagements** window that appears, click **Create New Rule**.

Step 3 In the **Rule Name** field, enter a name for the engagement rule.

Step 4 From the **When a user is on WiFi and** drop-down list, choose any of the following:

- **Entering a Location**: Choose this option if you want to send the notification to the business user, when a visitor connected to the Wi-Fi enters the location.
- **Away from the Location**: Choose this option if you want to send the notification to the business user, when a visitor connected to the Wi-Fi is away from the location for a specified time. If you are selecting this option, from the **For** scroll list, choose the number of minutes a visitor needs to be away from the location for sending notifications.

Note

- The **Exiting Location** option is no more available. If you are editing an existing Engagement Rule with **Exiting Location** configured, the **Choose User Activity** drop-down list will appear without any selection. You must choose the required option from the **Choose User Activity** drop-down list to save the rule successfully.
- Even if a visitor is physically present in the location, but gets disconnected from the Wi-Fi for the minutes specified in the **For** scroll list, the visitor will be considered for sending notification.

- **Present at Location**: Choose this option if you want to send notification to the business user, when a visitor who is connected to the Wi-Fi is present at the location for a specified duration or at a particular time. If you choose this option, additional fields appear where you can mention the duration or time that needs to be met by the customer to get filtered for this rule.

Step 5 In the **LOCATIONS** area, specify the locations for which you want to send the notifications.

You can configure to send notifications for the entire customer name or a single or multiple locations such as group, floor, or zone. You can add the locations of diffrerent wireless networks such as Cisco Meraki, Cisco Wireless Controller, and so on in an Engagement rule.

You can again filter the locations for which the notification is to send based on the metadata defined for the selected location or its parent or child locations. You can either send the notifications for the locations with a particular metadata or exclude the locations with a particular metadata.

Step 6 In the **IDENTIFY** area, specify the type of customers for whom you want to send the notifications to the business users.

Note You can filter the customers for whom you want to send the notifications to the business users based on whether the customer is an opted in or not opted in user, the tags the customers belong to, and the number of visits made by the customer You can apply all these filters or any of them based on your requirement.

To specify the customers for whom the notification is to send to the business user, perform the following steps:

a) If you want to filter the customers by the opt in status, check the **Filter by Opt-In Status** check box, and choose whether you want to send the notifications for opted in users or not opted in users.

b) If you want to filter the customers based on tags, check the **Filter by Tags** check box.

You can filter the tags in two different ways. Either you can specify the tags for which the notifications are to send or you can specify the tags for which the notifications must not be sent. You can choose the best filtering method based on your requirement. For example, if you want to send the notifications to the business users for all tags expect for one tag, it is easy to opt the exclude option, and mention that particular tag for which you do not want to send the notifications.

c) If you want to filter the customers based on the number of visits made by the customer in the selected locations, check the **Filter by Previous Visits** check box.

Click the **Add Locations** button. In the **Choose Locations** window, specify the locations of which the customer visit needs to consider for filtering. In the following fields, mention the number of visits and duration required to send notifications. For more information on the visits and duration you can configure, refer to the “Previous Visit Criteria” section.

Step 7 In the **SCHEDULE** area, specify the period for which you want to apply the engagement rule.

a) Check the **Set a date range for the rule** check box, and in the fields that appear specify the start date and end date for the period for which you want to apply the engagement rule.

b) Check the **Set a time range for the rule** check box, and in the fields that appear specify the time range for which you want to apply the engagement rule, within the date range specified.

c) If you want to apply the rule only on particular days, check the **Filter by days of the week** check box, and from the list of days that appears, click the days on which you want to apply the engagement rule.

Step 8 In the **ACTIONS** area, perform the following steps:

a) From the Notify drop-down list, choose **Business**, and from the adjacent drop-down list choose any of the following:

- **Only Once** —The notification is sent only once to a business user.
- **Once In** —The notification is sent more than once to a business user based on the notification frequency specified. In the additional fields that appear when you choose this option, specify the notification frequency. For more information on the notification frequency, refer to the "Notification Frequency" section.
- Specify the mode of notification. You can send the notification to the customers through Cisco Webex Teams, e-mail, SMS. You can also send the notification to an external API. For more information on notification types, refer to Notification Type for a Business User, on page 17

Note To display the variables such as first name, last name, mobile number, and so on in the notification message, you must configure the data capture form in the portal. For more information on configuring the data capture form in the portal, refer to the Adding a data capture form to a portal section.

Note The summary of the rule is shown in the right side of the page.

Step 9 Click **Save and Publish**.

The rule gets published and listed in the Engagement Rules page.

Note If you do not want to publish the rule now, you can click the **Save** button. You can publish the rule at any time later by opening the rule, and clicking the **Save and Publish** button. Also, you can publish the rule by clicking the **Make Rule Live** icon at the far right of the rule in the Engagement Rules page.

Use Case: Engagement Rule for a Business User

ABC is a hotel group with hotels around the globe. ABC has many privilege customers, mainly business people, who use its hotels. As part of its 25th anniversary, ABC wants to provide some special gifts to its platinum loyalty members who visits its first hotel at location A. ABC considers all the customers who had visited its hotels at location A or location C minimum 10 times in the last 2 years as platinum loyalty members. ABC wants its customer care representative to directly go and meet the customer, and gift the customers.

ABC wants to send notifications to its customer care representative regarding the arrival of the platinum loyalty members through SMS. The notifications need to send for the opted in users when the customer enters the location. The notifications are to send only for the current month. ABC wants to send the notifications only once for a customer.

To meet the preceding scenario, perform the following steps:

Procedure

Step 1 Log in to Cisco Spaces.

Step 2 Create the location hierarchy with all the locations of ABC.

Step 3 Create a tag for the platinum loyalty members, **Platinum**, using the Profile Rule. The rule must be to filter the customers visited the location A or location C at least 10 times in last 2 years.

Step 4 In the Cisco Spaces dashboard, click **Engagements**.

Step 5 On the **Engagements** window that appears, click **Create New Rule**.

Step 6 In the **RULE NAME** field, enter a name for the engagement rule.

Step 7 From the **When a user is on WiFi and** drop-down list, choose **Entering Location**.

Step 8 In the Locations area, click the **Add Locations** button, and select location A, the location where ABC wants to provide the gifts to the customers.

Step 9 In the **IDENTIFY** area, do the following:

a) Check the **Filter by Opt-In** Status check box, and choose **Only for opted-in Visitor**.
b) Check the **Filter by Tags** check box, and click the **Add Tags** button for Include.
c) In the **Choose Tags** window, click the **Include** radio button for **Platinum1**, created at step 3, and click**Done**.

Step 10 In the **SCHEDULE** area, do the following:

a) Check the **Set a date range for the rule** check box, and specify the start date and end date of the current month for which ABC want to provide the offer.

Step 11 In the **ACTIONS** area, do the following:

a) From the Notify drop-down list, choose **Business**.
b) From the adjacent drop-down list, choose **Only Once**.
c) Check the **Via Email** check box. In the From field, specify the From e-mail ID that must appear in the e-mail, in the "To" field, enter the e-mail ID of the business user to whom you want to send the notification, and in the Subject field, enter a subject for the notification e-mail. If required, edit the notification message displayed in the following text editor.

   The e-mail ID entered in the **From** field must be included in the allowed list for e-mail IDs. To include the e-mail ID in the allowed list, contact Cisco Spaces support team.

Step 12 Click **Save and Publish**.

The engagement rule is published.

What to do next

Now, when an opted in platinum loyalty member enters the premises of location A, a notification is sent to the customer care representative of location A.

Managing Engagement Rules

Pausing an Engagement Rule

To pause an engagement rule, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, click **Engagements**.

The **Engagements** window appear with all the engagements rules listed.

Step 2 In the **Actions** column, click the three-dot icon.

Step 3 Click **Pause Rule** of the engagement rule that you want to pause.

Step 4 A warning message appears; click **Pause Rule** to confirm.

The engagement rule is paused.

What to do next

To pause multiple engagement rules, check the check box for the engagement rules that you want to pause, and from the **More Actions** drop-down list at the top of the window, select **Pause**. A warning message appears; click **Pause Rule** to confirm.

Restarting an Engagement Rule

To restart an engagement rule, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, click **Engagements**.

The **Engagements** window appear with all the engagements rules listed.

Step 2 In the **Actions** column, click the three-dot icon.

Step 3 Click **Play** for a paused rule.

Step 4 A success message appears on the screen.

The engagement rule is restarted.

What to do next

To restart multiple engagement rules, check the check box for the engagement rules that you want to restart, and from the **More Actions** drop-down list at the top of the window, select **Make Live**.

Modifying an Engagement Rule

To modify an engagement rule, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, click **Engagements**.

The **Engagements** window appear with all the engagements rules listed.

Step 2 In the **Actions** column, click the three-dot icon.

Step 3 Click **Edit** of the engagement rule that you want to edit.

Step 4 Make necessary changes.

Step 5 To save the changes, click **Save** or to publish the changes, click **Save and Publish**.



Note A live rule will have only the **Save and Publish** button. When you click the **Save and Publish** button, the rule gets published with the changes.

Deleting an Engagement Rule

To delete an engagement rule, perform the following steps:

Procedure

Step 1 In the Cisco Spaces dashboard, click **Engagements**.

The **Engagements** window appear with all the engagements rules listed.

Step 2 In the **Actions** column, click the three-dot icon.

Step 3 Click **Delete** of the engagement rule that you want to delete.

Step 4 In the window that appears, confirm deletion.

What to do next

To delete multiple engagement rules, check the check box for the engagement rules that you want to delete, and from the **More Actions** drop-down list at the top of the window, select **Delete**. The delete confirmation dialog appears.

Engagement Rule Report

Cisco Spaces allows you to view the report that is specific to each engagement rule. This report displays the details of the rule activity and the user engagement for a specific rule.

To view the Engagement Rule report for an engagement rule, perform these actions:

Procedure

Step 1 In the Cisco Spaces dashboard, choose **Engagements**.

Step 2 Open **Engagements Rules**.

Click the rule name for which you want the Engagement Rule Report.

Step 3 (Optional) In the **Action** column, click three-dot icon to edit, pause, and delete the engagement rules.

Rule Activity

This section displays the details of notifications sent based on the particular engagement rule.

- **Daily Engagements**—Displays the ratio **"**the total number of notifications sent" to **"**the unique customers to whom the notifications are sent", on each day based on the particular engagement rule. X-axis represents the days in the filtered period. Y-axis represents the number of notifications sent. You can view the data for a particular day by hovering the mouse in the graph in the area for the day.
- **Engagements**—This section displays the total number of notifications sent for each of the targeted locations.
- **Engagement by Time of Day**—This bar graph displays the number of notifications sent to the customers during various timings in a day. This helps you to identify at what time the customers filtered for the rule are present in your business premises, and target them accordingly.

Visitor Engagement

The Visitor Engagement report shows the details of engagements with the visitors based on the Engagement Rule you have configured. To access the Visitor Engagement report, in the Engagements window, click the three-line menu icon at the top-left of the window, and then click **Visitor Engagement** .

Engagements

Total Engagements -The total number of engagements (through SMS, e-mail notificationsn, and puch notification) with the visitors, who have visited the selected location, during the specified period. This metrics

for all the locations from the date of installation of the Cisco Spaces is shown at the top of the report for " **Total Engagements with Visitors** ".

Via SMS - The total number of engagements through SMS to the visitors who have visited the selected during the specified period. The percentage of engagements through SMS out of total engagements is also displayed.

Via Email - The total number of engagements through e-mail to the visitors who have visited the selected during the specified period. The percentage of engagements through e-mail out of total engagements is also displayed.

Via Push Notification - The total number of engagements through app push notifications to visitors during the specified period. The percentage of push engagements out of total engagements is also displayed.

Daily Trends of Engagements

This section displays a line graph that shows the number of engagements from the location on each day of the specified period through various notification types such as SMS, e-mail and so on. The color indicators for various notification types are displayed at the top of the graph. Mouse-over the graph to view the engagement details for a particular day.

Engagement Rule Report

This section lists the report for various Engagement Rules. The date on which the rule is published is shown along with the total number of engagements made based on the rule. You can view the detailed report for a particular Engagement rule by clicking the corresponding rule. For more information on Engagement rule report, see Engagement Rule Report, on page 12.

Engagement URL

The Engagement URL refers to the URL that is provided in the SMS and e-mail notification messages that are sent to the customers. For business users, you can add the engagement URL in the SMS notifications. The users can click this URL to view a site page that is relevant to the notification. For example, you can provide a site page with more information on the discounts and offers available to the customer. You can create this site page using any site development application.

Previous Visit Criteria

You can define various criteria for filtering the customers based on their previous visits.

- **Atleast ..Times**— The rule is applied when the number of customer visits meets the number specified.
  - **Last 1 day**—The rule is applied if the number of customer visits in the last one day meets the number specified.
  - **Last 7 days**—The rule is applied if the number of customer visits in the last 7 days meets the number specified.
  - **Last 15 days**—The rule is applied if the number of customer visits in the last 15 days meets the number specified.
  - **Last 30 days**— The rule is applied if the number of customer visits in the last 30 days meets the number specified.

- **Last 90 days**— The rule is applied if the number of customer visits in the last 90 days meets the number specified.
- **This Weekend**— The rule is applied if the number of customer visits in the current week meets the number specified.
- **This Month**— The rule is applied if the number of customer visits in the current month meets the number specified.
- **This Year**—The rule is applied if the number of customer visits in the current year meets the number specified.
- **Date Range**— The rule is applied if the number of customer visits during a particular period meets the number specified. If you choose this option, additional fields appear where you can mention the start date and end date for the period.

- **Between, ..Times**— The rule is applied when the number of customer visits comes within the number range specified.
  - **Last 1 day**—The rule is applied if the number of customer visits in the last one day comes with in the number range specified.
  - **Last 7 days**—The rule is applied if the number of customer visits in the last 7 days comes with in the number range specified.
  - **Last 15 days**—The rule is applied if the number of customer visits in the last 15 days comes with in the number range specified.
  - **Last 30 days**— The rule is applied if the number of customer visits in the last 30 days comes with in the number range specified.
  - **Last 90 days**— The rule is applied if the number of customer visits in the last 90 days comes with in the number range specified.
  - **This Week**— The rule is applied if the number of customer visits in the current week comes with in the number range specified.
  - **This Month**— The rule is applied if the number of customer visits in the current month comes with in the number range specified.
  - **This Year**— The rule is applied if number of customer visits in the current year comes with in the number range specified.
  - **Date Range**— The rule is applied if the number of customer visits during a particular period comes with in the number range specified. If you choose this option, additional fields appear where you can mention the start date and end date for the period.

Notification Types

Cisco Spaces enables you to send the notifications in the following formats:

- **SMS**—To send the notification as an SMS. For business users, you can define the mobile number to which you want to send the notification.

- **Email**— To send the notification as an e-mail. For business users, you can define the e-mail address to which you want to send the notification.
- **API Notifications**—To send an API notification to an external application. Cisco Spaces enables you to send the notification to a third party application. This notification type is not applicable for customers.
- **Cisco Webex Teams**—To send the notification to the Webex Team account of the business user. This notification type is not applicable for customers. To use this notification type, you must have a Cisco Webex account.

Notification Frequency

The frequency at which you want to send the notification for an engagement rule. You can configure the engagement rule for the following notification frequencies:

- Only Once—To send the notification only once to a user.
- Once in— To send the notification once in the interval specified.
  - Visits—To send the notification when the number of customer visits meet the number specified.
  - Days—To send the notification once in the number of days specified.
  - Weeks— To send the notification once in the number of weeks specified.
  - Months— To send the notification once in the number of months specified.

Location Filter for an Engagement Rule

To specify the locations for which you want to send the notifications, perform the following steps:

1. Click the **Add Locations** button.
2. In the **Choose Locations** window that appears, check the check box for the locations for which you want to send the notifications.
3. Click **Done**.

You can again filter the locations using the metadata defined for the locations. Only the metadata defined for the selected locations and their parent or child locations will be available for selection.

To send notifications only for the locations with a particular location metadata, perform the following steps

1. Check the **Filter by Metadata** check box.
2. In the **Filter** area, click the **Add Metadata** button.

   The **Choose Location Metadata** window appears.
3. From the drop-down list, choose the metadata variable, and choose the value for the variable in the adjacent field.
4. Click **Done**. The selected metadata and variable details are displayed in the **Filter by Metadata** area.

To exclude to send notifications for the locations with a particular metadata, perform the following steps:

1. Check the **Filter by Metadata** check box.
2. In the **Exclude** area, click the **Add Metadata** button.

   The **Choose Location Metadata** window appears.
3. From the drop-down list, choose the metadata variable.
4. Click **Done**. The selected metadata is displayed in the **Filter by Metadata** area.

Notification Type for a Consumer

In the Engagement rule, under the Actions area, specify the modes through which you want to send the notifications to the customer.

- If you want to send the notification through SMS, check the “Via SMS” check box. From the “SMS Gateway” drop-down list, choose the SMS gateway through which you want to send the SMS notification. You can use the **Demo Gateway** provided by Cisco, which is chargeable. For information on adding the SMS gateways, see the message content that is sent to the customer is displayed in the following text box. You can enhance the message content using variables. By default, the first name and last name of the customer, and engagement URL are added as variables. You can add more text variables in the message using the variables that lists below the text box when you click the text box. For more information on adding a text variable, see the Smart Links and Text Variables section.

  If required, in the Link field, enter the engagement URL that must appear in the notification. For more information on creating the engagement URL, see the Engagement URL, on page 13 section.
- If you want to send the notification through e-mail, check the **Via Email** check box. In the **From Name** field, specify the name from which the customer receives the e-mail, in the **From Email** field, specify the e-mail ID from which the customer receives the e-mail, and in the **Subject** field, enter the subject for the notification e-mail. The message content that is sent to the customer is displayed in the following text box. You can enhance the message content using the text variables. By default, the first name and last name of the customer, and engagement URL are added as variables. You can add more text variables in the message using the variables that lists below the text box when you click the text box. For more information on adding a text variable, see the Smart Links and Text Variables section.

  If required, in the **Link** field, enter the engagement URL that must appear in the notification. For more information on creating the engagement URL, see the Engagement URL, on page 13 section.

Note

- If you are using the **Via Email** option, you must ensure to add the e-mail ID entering in the **From** field in the allowed list of e-mail IDs. To include the e-mail ID in the allowed list, contact the Cisco Spaces support team. If you do not want to use a specific e-mail ID, you can use the default allowed e-mail ID **no-reply@dnaspaces.io**. However, the default ID is not displayed in the dashboard automatically. So, you have to enter it manually.
- The variable "$firstName" is to display the first name of the customer, "$lastName" is to display the last name of the customer, "$email" is to display the e-mail address of the customer, "$mobile" is to display the mobile number of the customer", "$URL" is to display the engagement URL, "$gender" is to display the gender of the customer", and "locationName" is to display the location from which the message is sent.
- To display the variables such as first name, last name, mobile number, and so on in the notification message, you must configure the data capture form in the portal. For more information on configuring the data capture form in the portal, refer to the Add a data capture form to a portal section.

Notification Type for a Business User

You can send notifications to the business users through Cisco Webex Teams, SMS and e-mail. You can also send the notifications to an API end point.

- If you want to send the notification through Cisco Webex Teams, check the **Via Cisco Webex Teams** check box. From the **Webex Accounts** drop-down list, choose the Webex account to which you want to send the notifications. You can add a Webex account using the **Add Webex Account** option. To add a webex account , you must specify the webex developer account, and you must generate a token for the particular account using the Webex Developer site. Then you must configure the token in the **Add Webex Account** window within the timeout period shown for the token in the developer site. As an alternate to the default token, you can create Bots in the developer site, and can generate tokens without timeout limitations.

  The message content that is sent to the business users is displayed in the **Notification Message** text box.You can enhance the message using the text variables. By default, the first name and last name of the customer, and the engagement URL are added as variables. You can add more text variables in the message using the variables that lists below the text box when you click the text box. For more information on adding a text variable, see the Smart Links and Text Variables section.
- If you want to send the notification through SMS, check the **Via SMS** check box. From the **SMS Gateway** drop-down list, choose the SMS gateway through which you want to send the SMS notification. You can use the **Demo Gateway** provided by Cisco, which is chargeable. In the **To** field that appears, enter the mobile number (with country code) of the business user to whom you want to send the notifications. If required, in the **Link** field, enter the engagement URL that must appear in the notification. For more information on configuring the engagement URL, see the Engagement URL, on page 13.

  The message content that is sent to the business users is displayed in the following text box.You can enhance the message using the text variables. By default, the first name and last name of the customer, and the engagement URL are added as variables. You can add more text variables in the message using the variables that lists below the text box when you click the text box. For more information on adding a text variable, see the Smart Links and Text Variables section.

- If you want to send the notification through e-mail, check the **Via Email** check box. In the **From** field, specify the "From e-mail ID" that must appear in the e-mail, in the **To** field, enter the e-mail ID of the business user to whom you want to send the notification, and in the **Subject** field, enter a subject for the notification e-mail.

Note The e-mail ID entered in the **From** field must be included in the allowed list for e-mail IDs. To include the e-mail ID in the allowed list, contact Cisco Spaces support team. If you do not want to use a specific e-mail ID, you can use the default allowed e-mail ID **no-reply@dnaspaces.io**. However, the default ID is not displayed in the dashboard automatically. So, you have to enter it manually.

The message content that is sent to the business user is displayed in the following text box. By default, the first name and last name of the customer, and the engagement URL are added as variables. You can add more text variables in the message using the variables that lists below the text box when you click the text box. For more information on adding a text variable, see the Smart Links and Text Variables section. If required, in the **Link** field, enter the engagement URL that must appear in the notification. For more information on configuring the engagement URL, see the Engagement URL, on page 13.

- If you want to send the notification to an external API, check the **Trigger API** check box. For more information on the configurations for Trigger API, see the "Trigger API Configuration for Notification" section.

Smark Links and Text Variables for Engagements Rule and Density Rule

In Engagement Rules and Density Rules, you can add text variables in the notification messages sent for all notification types (**Via Cisco Webex Teams**, **Via SMS**, **Via Email**, and **Trigger API**), and can create smart links for **Trigger API** URI. The varilables enable you to display the customer, location and device details in the notification message or Trigger API URI. By default, the notification message will have first name and last name of the customer. You can add additional additional details using the variables.

For example, assume that you have created an engagement rule to send SMS notifications to the customers and have configured the variables "mobile" and "gender" in the message text box for the SMS notification. Now, when a customer receives a SMS message based on this engagement rule, the mobile number and gender details of the customer are also shown in the message.

Note Cisco Spaces captures the personal details of the customers using the Data Capture form. That is, to include the personal details such as first name, last name, gender, and so on in the smart link or as text variable, you must configure the Data Capture form in the portal. For more information on adding a Data Capture form to a captive portal, refer to the Add a data capture form to a portal section.

You can include static and dynamic variables in the notification message and URLs.

The static variables that you can include in the notification message are as follows:

Table 1: Static Variable List

Static Variable Name	Description
$firstName	First name of the customer.
$lastName	Last name of the customer.
$email	E-mail address of the customer.
$mobile	Mobilie number of the customer.
$gender	Gender of the customer.
$URL	URL link value.
$TotalAreaValue	The total area configured for the location in the **Location Info** window in **Location Hierarchy**.
$TotalAreaUnit	The total area unit configured for the location in the **Location Info** window in **Location Hierarchy**.
$TotalCapacity	The total capacity configured for the location in the **Location Info** window in **Location Hierarchy**.
$locationName	Name of the location for which the rule is triggered.,
$buildingName(Only for Density Rules)	Building name of the location for which the notification is triggered.
$floorName(Only for Density Rules)	Floor name of the location for which the notification is triggered.
$zoneName (Only for Density Rules)	Zone name of the location for which the notification is triggered.
$deviceCount (Only for Density Rules)	Device count for the location for which the notification is triggered.
$locationPath (Only for Density Rules)	The location path (parent hierarchy) for the location for which the rule is triggered. The locations in the hierarchy will be separated by '>' (Sample Format: Account>CMXNode>Campus>Building>Floor>Zone).
The **Trigger API** notification type will be having the following additional variables for both Engagements Rules and Density Rules.	
$macaddress	The mac address of the device.
$encryptedMacAddress	The encrypted mac address of the device.
$deviceSubscriberId	The subscriber ID for the device in the database.
$optinStatus-	The opt in status for the customer.

The dynamic variables that you can include in the notification message and URLs for Enagagements Rule and Density Rule are as follows:

Table 2: Dynamic Variable List

Dynamic Variable Name	Description
Business Tags	The business tag to which the customer belongs to. The business tags configured in the Data Capture form are listed as variables. For more information on creating a business tag, refer to the Add a data capture form to a portal section.
Location Metadata	The location metadata for the customer location. The location metadata keys defined in the location hierarchy are listed as variables.or more information on defining the location metadata, refer to Location Hierarchy.

To include a smart link in the URL or text variable in the notification message, perform the following steps:

Procedure

Step 1 To include smart link, click anywhere inside the **URI** field. To include text variable, click anywhere inside the notification message text box. To include text variable for **Via Email**, click the **Smartlinks** drop-down list in the rich text editor.

The variables that you can include get listed.

Step 2 Choose the variables that you want to include.

Trigger API Configuration for Notification

To send notifications to an external API through the rules, in the Create [Rule Name] window, in the Actions area, perform the following steps:

1. Check the **Trigger API** check box.
2. From the **Method** drop-down list, choose the method for triggering API.

Note You can add the customer details in the notification message, by adding the link variables in the API URI or text variables in the method parameters.

- **Get** — To send notification or customer details to the API using the "GET" method. If you choose this method, additional fields appear where you can mention the GET request headers and parameters to include additional details such as first name, last name, mobile number, and so on of the customer in the notification. You can add the request parameter keys defined in your API and mention the values for them using text variables. The value can be a hard-coded value or a variable. You can

view the variables that you can add by clicking the “Value” field. You can add more **GET** headers and parameters using the corresponding **Add** button.

- **Post Form** — To send notification or customer details to the API using the “POST FORM” method. If you choose this method, additional fields appear where you can mention the POST FORM request headers and parameters to include additional details such as first name, last name, mobile number, and so on of the customer. You can add the form parameter keys defined in your API and mention the values for them.The value can be a hard-coded value or a variable. You can view the variables that you can add by clicking the “Value” field. You can add more “form parameters” using the **Add** button.
- **Post JSON** — To send notification or customer details to the API using the “POST JSON” method. If you choose this method, request header fields appear, along with a text box where you can mention the JSON data that is to send as notification message to the API. You can mention the values for various JSON request header fields defined in your API. The value can be a hard-coded value or a variable. You can view the variables that you can add by clicking the “Value” field. You can view the variables that you can add to the JSON Data by clicking the text box.
- **Post Body** — To send notification or customer details to the API using the "POST BODY" method. If you choose this method, an request header fields appear where you can mention the content that must be included in the notification sent to the API, along with a **Post Body Data** field. You can mention the values for various Body request header fields defined in your API. The value can be a hard-coded value or a variable. You can view the variables that you can add by clicking the “Value” field. You can view the variables that you can add to the **Post Body Data** field when you clicking the field.



Note Only those data that you have configured to capture using the Data Capture form in the portal are included in the notifications.

3. In the URI field, enter the URI for the API. You can include additional details of the customers in the notification message using the smart links. To view the variables that you can include in the URI, click the **URI** field.

   - For information on variables that you can add for the Captive Portal Rule, refer to the Smart Links and text variables for Captive Portals.
   - For information on variables that you can add for the Engagement or Density Rule, see Smark Links and Text Variables for Engagements Rule and Density Rule, on page 18