

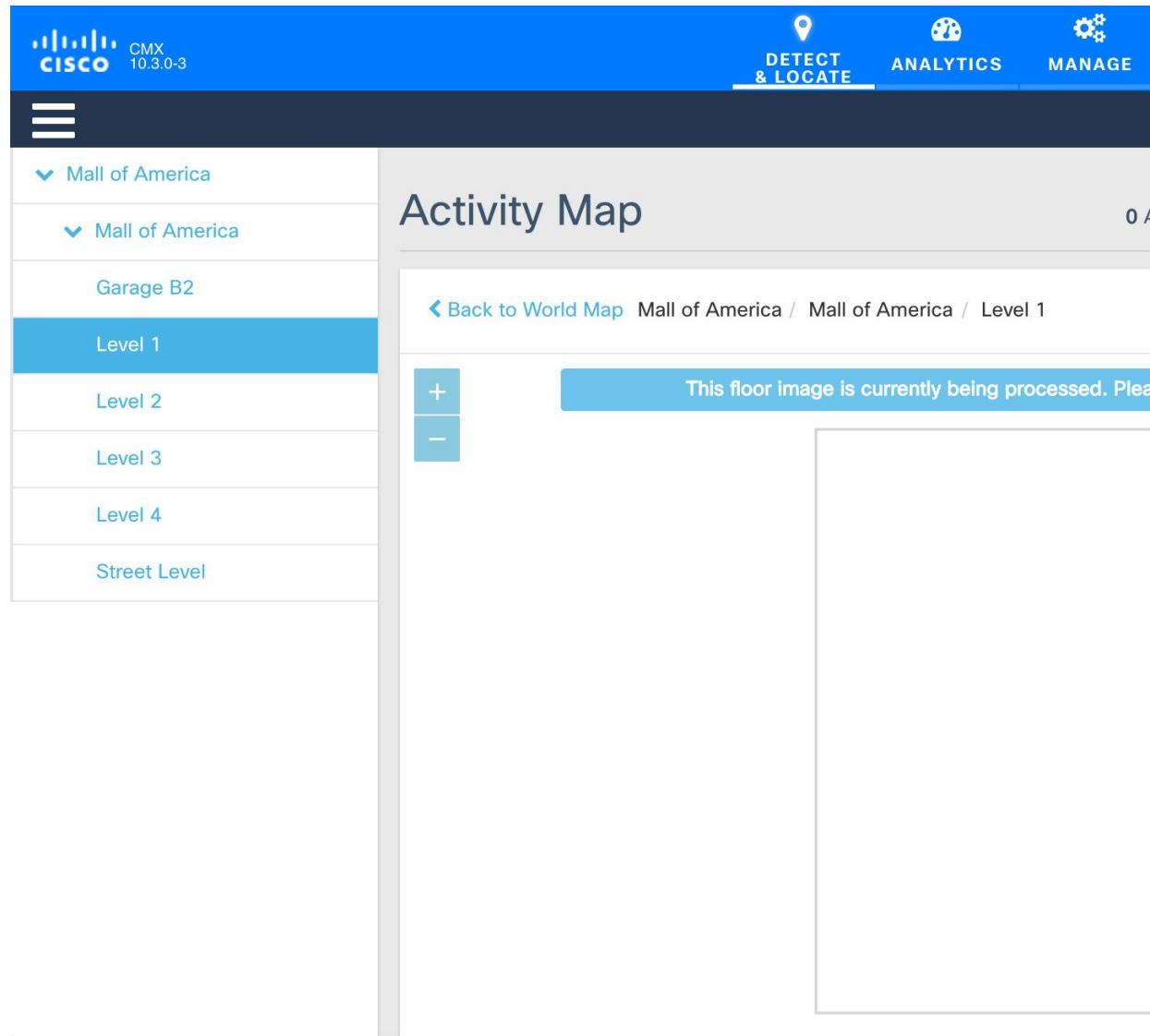


Guidelines for Managing Maps in Cisco CMX

We recommend that you use the following guidelines to effectively manage the maps on Cisco CMX. These guidelines are based on frequently asked questions about map import/update scenarios and will help avoid typical mistakes while importing/updating maps on Cisco CMX.

- You can import maps from Catalyst Center. For more information, see [Importing Maps from Catalyst Center](#).
- Map uploads into Cisco CMX are best performed outside of business hours (or when Cisco CMX system activity is low), after 9PM is recommended. There are no hard and fast rules though. Maps import involves significant amount of processing to update the Database and processing floor images based on the size of floor image.
- Decide on an update window of 30 minutes for uploading maps to Cisco CMX. For a typical floor image, Cisco CMX can take up to 15 seconds per image to complete processing and show the floor image on Cisco CMX GUI. A typical map of a Campus with 100 floors may take up to 30 minutes to complete image processing background jobs. If the image processing in progress, The GUI will show an information message saying 'This floor image is currently being processed. Please refresh the page after a few moments to view the image'.

Figure 1: Activity Map



- Create and update the zones using Cisco CMX GUI map editor. All other map edit operations are to be performed using Prime Infrastructure.
- An AP can only be associated with a single floor map in Prime. If you are planning to move APs from one floor to another, you want to disassociate them from existing floor-map in Prime so that they can be associated to new floor-map in Prime. (Please refer to 'Typical map import issues: Case 2' for troubleshooting steps.)
- To expand a map to cover a larger area, create a new map in Prime and move APs to the new map from older map. You also want to make sure that the older floor is deleted from Prime and Cisco CMX before the new floor map is imported on Cisco CMX.
- Avoid doing bulk map import/exports. Export individual maps changes from Prime Infrastructure and import into Cisco CMX. For large set of maps, Its not recommended to use 'Import from Cisco Prime'

option (shown in the picture) as this will sync all maps from Prime to Cisco CMX that may put significant amount of load on the system.

Figure 2: Import from Cisco Prime

SETTINGS

- Tracking
- Filtering
- Location Setup
- Mail Server
- ▼ Controllers and Maps Setup
- Import**
- Advanced
- Upgrade
- High Availability

Import from Cisco Prime

Please provide Cisco Prime credentials below:

Username
Enter Username

IP Address
Enter IP Address

Save Cisco Prime Credentials

Delete & replace existing maps & analytics data

Delete & replace existing zones

*Please enter the correct SNMP community string after import.

▶ **Controllers**

Last Synced: N/A

▶ **Maps**

Last Synced: N/A

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Create a Map Using Cisco Prime Infrastructure

To create a map using Cisco Prime Infrastructure, see the "[Using Wireless Maps](#)" chapter in the Cisco Prime Infrastructure 3.1 User Guide.

Delete a Map Using Cisco Prime Infrastructure

Procedure

- Step 1** Log in to Cisco Prime Infrastructure.
- Step 2** Click the **Open/Close** navigation icon (above the Home icon on top left hand side).
- Step 3** Choose **Maps > Site Maps**.
- Step 4** From the **Select a command** drop-down list, choose **Delete**.
- Step 5** Select the checkbox of the individual map you wish to delete and click **Go** (next to the **Select a command** drop-down).

Site Maps [Edit View](#)

Show: Type Status Incomplete ?

<input type="checkbox"/> Name	Type ▲	Incomplete	Total APs
<input type="checkbox"/> System Campus	Campus/Site		87
<input type="checkbox"/> Unassigned	Campus/Site		0
<input type="checkbox"/> Nortech Campus	Campus/Site		13
<input type="checkbox"/> pwalawal-campus	Campus/Site		4
<input type="checkbox"/> Nortech Campus > Nortech Building	Building		13
<input type="checkbox"/> System Campus > Bldg 18	Building		7
<input type="checkbox"/> System Campus > Mall Of Emirates	Building		4
<input type="checkbox"/> System Campus > Nortech	Building		4
<input type="checkbox"/> System Campus > SJC-24	Building		6
<input type="checkbox"/> System Campus > bldg14-dharani	Building		3
<input type="checkbox"/> System Campus > dwg_test_building	Building		1
<input type="checkbox"/> System Campus > khushbo18	Building		47
<input type="checkbox"/> System Campus > khushboo	Building		0
<input type="checkbox"/> System Campus > pwalawal	Building		15
<input type="checkbox"/> System Campus > test2	Building		0
<input type="checkbox"/> pwalawal-campus > pwalawal-building-1	Building		4
<input type="checkbox"/> Nortech Campus > Nortech Building > Halo Mode	Floor Area		4
<input type="checkbox"/> Nortech Campus > Nortech Building > Mixed Mode	Floor Area		9
<input checked="" type="checkbox"/> System Campus > Bldg 18 > 2nd-Floor	Floor Area		7

Move an Access Point Between Maps Using Cisco Prime Infrastructure

Procedure

- Step 1** Log in to Cisco Prime Infrastructure.
- Step 2** Click on Open/Close navigation icon (above the Home icon on top left hand side).
- Step 3** Choose **Maps > Site Maps**.
- Step 4** From the **Select a command** drop-down list, choose **Floor Area**.
- Step 5** Click **Go**.

Step 6 Click on the floor Area from which you want to release the AP. The **Floor View** window is displayed.

Step 7 From the **Select a command** drop-down list, choose **Remove Access**

structure

Application Search

root - ROOT-DOMAIN

em Campus / SJC-24 / SJC-24-3rd

Floor View

Remove Access Points

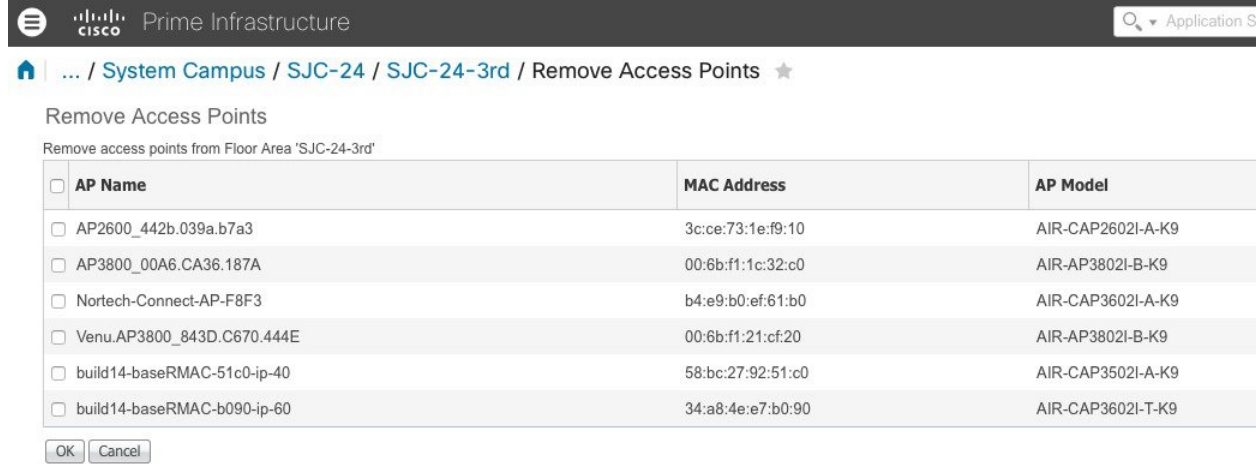
Showing: AP Status Protocol: 802.11a/n/ac

Data may be delayed up to 15 minutes or more depending on background polling interval

-35 dBm -90 dBm 5 min

The screenshot displays the 'Floor View' interface in Cisco CMX. At the top, there's a navigation bar with 'structure', 'Application Search', and 'root - ROOT-DOMAIN'. Below that, the breadcrumb 'em Campus / SJC-24 / SJC-24-3rd' is visible. The main area is titled 'Floor View' and contains a 'Remove Access Points' dropdown menu. Below the menu, it shows 'Showing: AP Status Protocol: 802.11a/n/ac' and a warning: 'Data may be delayed up to 15 minutes or more depending on background polling interval'. A signal strength legend is shown with a color scale from -35 dBm (red) to -90 dBm (blue) and an 'Auto Refresh' button set to '5 min'. The floor plan itself is a grid with dimensions from 0 to 200 feet on both axes. Various rooms are highlighted in different colors: red, green, cyan, and purple. A vertical scale on the right side of the map is labeled '385468'. At the bottom right of the map area, it says '301.49 ft, 4'.

Step 8 Select the AP to be deleted and click **OK**.



The screenshot shows the Cisco Prime Infrastructure web interface. The breadcrumb navigation is: [...](#) / [System Campus](#) / [SJC-24](#) / [SJC-24-3rd](#) / [Remove Access Points](#) ★. The main heading is "Remove Access Points" with a subtitle "Remove access points from Floor Area 'SJC-24-3rd'". Below this is a table with three columns: "AP Name", "MAC Address", and "AP Model". There are six rows of APs, each with a checkbox in the first column. At the bottom of the table are "OK" and "Cancel" buttons.

<input type="checkbox"/>	AP Name	MAC Address	AP Model
<input type="checkbox"/>	AP2600_442b.039a.b7a3	3c:ce:73:1e:f9:10	AIR-CAP2602I-A-K9
<input type="checkbox"/>	AP3800_00A6.CA36.187A	00:6b:f1:1c:32:c0	AIR-AP3802I-B-K9
<input type="checkbox"/>	Nortech-Connect-AP-F8F3	b4:e9:b0:ef:61:b0	AIR-CAP3602I-A-K9
<input type="checkbox"/>	Venu.AP3800_843D.C670.444E	00:6b:f1:21:cf:20	AIR-AP3802I-B-K9
<input type="checkbox"/>	build14-baseRMAC-51c0-ip-40	58:bc:27:92:51:c0	AIR-CAP3502I-A-K9
<input type="checkbox"/>	build14-baseRMAC-b090-ip-60	34:a8:4e:e7:b0:90	AIR-CAP3602I-T-K9

OK Cancel

Step 9 Click **Position AP** icon (before the delete icon) to place APs on the map.

The screenshot displays the Cisco Prime Infrastructure interface. On the left, the 'Maps Tree View' is expanded to 'Floor Settings', which includes a list of map layers such as 'Access Points', 'AP Heatmaps', 'Clients', '802.11 Tags', 'Rogue APs', 'Adhoc Rogues', 'Rogue Clients', 'Coverage Areas', 'Location Regions', 'Obstacles', 'Rails', 'Markers', 'Chokepoints', 'Wifi TDOA Receivers', 'GPS Markers', 'Services', 'Interferers', and 'wIPS Attackers'. Below this list, there is a 'Show MSE data' section with a dropdown set to 'Currently Detected' and a 'Save Settings' button. A 'Load Status' section shows a 'Load' button and a list of status messages: 'Loading APs', 'Loading Clients', 'Loading Tags', 'Periodic Refresh Done.', 'Done loading Clients', and 'Done loading Tags'. At the bottom of the tree view is an 'MSE Assignment' link.

The main area shows a 'Floor View' of a building floor plan. Above the map, it indicates 'Showing: AP Status' and 'Protocol: 802.11a/n/ac'. A warning message states: 'Data may be delayed up to 15 minutes or more depending on background polling interval'. Below the warning is a signal strength legend ranging from -35 dBm (dark blue) to -90 dBm (dark red), with an 'Auto Refresh' interval of 5 minutes. The map itself shows a grid with dimensions from 0 ft to 200 ft. A central area of the floor plan is highlighted in red, indicating a signal strength of -35 dBm. Other areas are highlighted in yellow and green, indicating lower signal strengths. A navigation toolbar is visible on the left side of the map, including a compass and zoom controls.

Step 10

From the **AP Name** drop-down list, choose the AP and place it to the correct location on the map.

Home / ... / System Campus / SJC-24 / SJC-24-3rd / Position APs ★

Click on an AP icon to change its position, height and/or antenna information. Position of AP can be changed by dragging the icon with mouse.

Position APs

--AP Name--	--MAC Address--
AP2600_442b.039a.b7a3	3c:ce:73:1e:f9:10
AP3800_00A6.CA36.187A	00:6b:f1:1c:32:c0
build14-baseRMAC-51c0-ip-40	58:bc:27:92:51:c0
build14-baseRMAC-b090-ip-60	34:a8:4e:e7:b0:90
Nortech-Connect-AP-F8F3	b4:e9:b0:ef:61:b0
Venu.AP3800_843D.C670.444E	00:6b:f1:21:cf:20

Use Ctrl + Mouse Click or Mouse Drag on APs for multiple APs. Use Ctrl-A for all currently visible APs



Export a Map Using Cisco Prime Infrastructure

Procedure

- Step 1** Log in to Cisco Prime Infrastructure.
- Step 2** Click on Open/Close navigation icon (above the Home icon on top left hand side).
- Step 3** Choose **Maps > Site Maps**.
- Step 4** From the **Select a command** drop-down list, choose **Export Maps**.
- Step 5** Check the checkbox of the individual map you wish to export .

Prime Infrastructure

Maps / Wireless Maps / Site Maps

Maps Tree View

- Root Area
 - System Campus
 - Unassigned
 - Nortech Campus
 - pwalawal-campus

Site Maps [Edit View](#)

Show: Type Status Incomplete [?](#)

<input type="checkbox"/> Name	Type ^	Incomplete	Total APs	a/n/ac Radios	b/g/n Radios
<input type="checkbox"/> System Campus	Campus/Site		92	93	91
<input type="checkbox"/> Unassigned	Campus/Site		0	0	0
<input type="checkbox"/> Nortech Campus	Campus/Site		13	13	13
<input type="checkbox"/> pwalawal-campus	Campus/Site		4	4	4
<input type="checkbox"/> Nortech Campus > Nortech Building	Building		13	13	13
<input type="checkbox"/> System Campus > Bldg 18	Building		7	7	7
<input type="checkbox"/> System Campus > Mall Of Emirates	Building		10	11	9
<input type="checkbox"/> System Campus > Nortech	Building		4	4	4
<input type="checkbox"/> System Campus > SJC-24	Building		6	6	6
<input type="checkbox"/> System Campus > bldg14-dharani	Building		3	3	3
<input type="checkbox"/> System Campus > dwg_test_building	Building		0	0	0
<input type="checkbox"/> System Campus > khushbo18	Building		47	47	47
<input type="checkbox"/> System Campus > khushboo	Building		0	0	0
<input type="checkbox"/> System Campus > pwalawal	Building		15	15	15
<input type="checkbox"/> System Campus > test2	Building		0	0	0
<input type="checkbox"/> pwalawal-campus > pwalawal-building-1	Building		4	4	4
<input checked="" type="checkbox"/> Nortech Campus > Nortech Building > Halo Mode	Floor Area		4	4	4

Step 6 Click Go.

Import New and Modified Maps to Cisco CMX

Navigate to Cisco CMX UI Advanced import option below (select System - Settings - Controllers and Maps Setup - Advanced), leave both checkboxes unchecked shown below. Browse to the maps file to be imported, select **Upload**.

SETTINGS

Tracking

Filtering

Location Setup

Mail Server

▼ Controllers and Maps Setup

Import

Advanced

Upgrade

High Availability

Maps

Please select maps to add or modify:

Delete & replace existing maps & analytics data

Delete & replace existing zones

Controllers

Please add controllers by providing the information below:

Controller Type

IP Address

Controller Version [Optional]

Controller SNMP Version

Controller SNMP Write Community

