



Extreme Networks RF Planner™ Quick Reference

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Preface

Text Conventions

The following tables list text conventions that are used throughout this guide.

Table 1: Notice Icons

Icon	Notice Type	Alerts you to...
	General Notice	Helpful tips and notices for using the product.
	Note	Important features or instructions.
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.
	New	This command or section is new for this release.

Table 2: Text Conventions

Convention	Description
Screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words enter and type	When you see the word “enter” in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says “type.”
[Key] names	Key names are written with brackets, such as [Return] or [Esc] . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press [Ctrl]+[Alt]+[Del]
<i>Words in italicized type</i>	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.

Terminology

When features, functionality, or operation is specific to a switch family, such as ExtremeSwitching™ or Summit®, the family name is used. Explanations about features and operations that are the same across all product families simply refer to the product as the switch.

Providing Feedback to Us

We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team about this document, please contact us using our short [online feedback form](#). You can also email us directly at internalinfodev@extremenetworks.com.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

- **GTAC (Global Technical Assistance Center) for Immediate Support**
 - **Phone:** 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact
 - **Email:** support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.
- **Extreme Portal** — Search the GTAC knowledgebase, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.
- **The Hub** — A forum for Extreme customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Extreme Networks Documentation

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
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1 RF Planner Legal Disclaimer

The Extreme Networks RF Planner configuration tool is offered free-of-charge and provides output usable to assist in planning on access point and related WiFi architecture design guidance. The information provided herein is provided without any warranty, and is dependent upon the information provided by the user. Actual deployment numbers may differ due to environmental factors, characteristic changes of the coverage area or changes in user's information. Extreme Networks provides no guarantee of the quality or accuracy of information provided as output of the configuration tool nor any warranty of fitness or for particular usage or purpose.

2 Register and Access the Tool

RF Planner™ is accessed through the Partner Portal. The RF Planner tool supports Chrome, Firefox, and Internet Explorer 11.0 and later.

To access the tool:

- 1 Go to <https://wirelessplanner.extremenetworks.com>. First time users must register.
- 2 Log in with your account credentials.

The **Plan Settings** page opens.



Note

From here, you can select the **Account Settings** tab to manage your account.

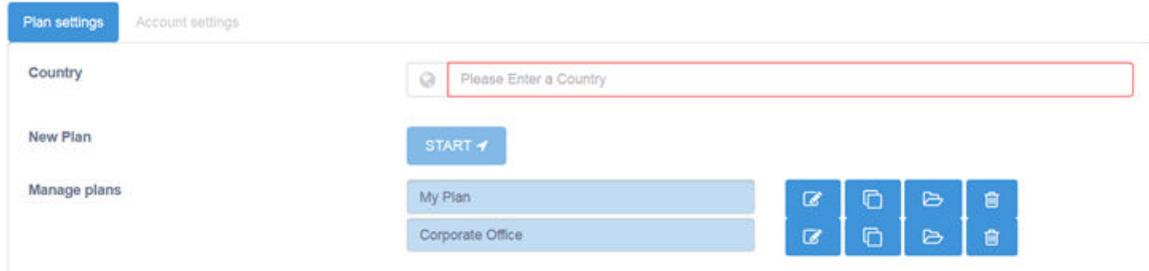


Figure 1: Plan Settings Tab

- 3 In the **Country** field, start typing a country name to open a drop-down list of countries. For example, type `United` (instead of `USA`). The country name helps determine the applicable regulatory domain for the design (affecting channel selection) and device availability.
- 4 To create a new plan, select **Start**. Otherwise, select  from the main menu, and then select a plan from the **Manage Plans** list.

The **Floor Editor** page opens.

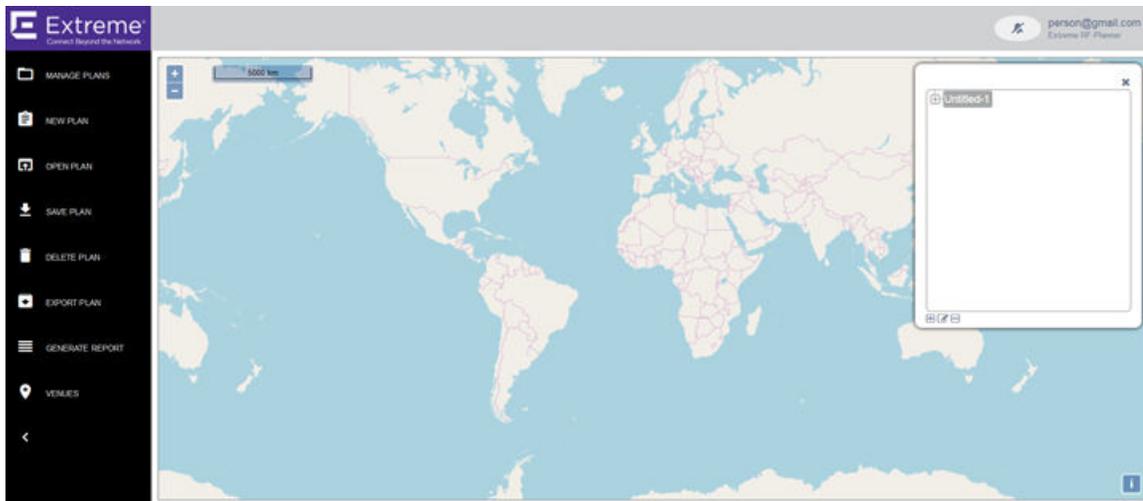


Figure 2: Floor Editor

For more information about the user interface, see [Use the Tool](#) on page 11. Otherwise, you can proceed to [Import and Place Controller Inventory](#) or [Create a Plan and Upload a Floor Image](#) on page 13.

3 Manage Account Settings

You can change your account information and password as needed.

To manage your account settings:

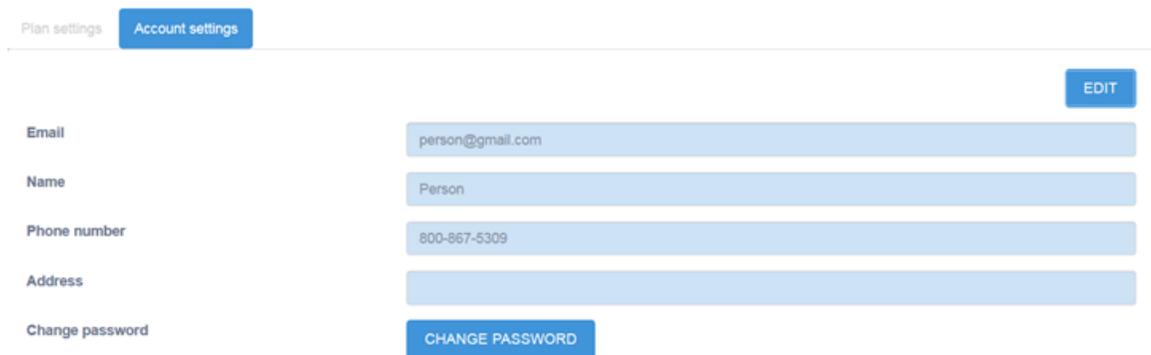
After you log in, the **Plan Setting** page opens automatically.

- 1 Log in with your account credentials.

The **Plan Settings** page opens. The **Account Settings** tab is located to the right of the **Plan Settings** tab.

- 2 Click the **Account Settings** tab.

The **Account Settings** page opens.



The screenshot shows the 'Account settings' tab selected in a navigation bar. Below the navigation bar, there are five rows of settings. Each row has a label on the left and a corresponding input field on the right. The 'Email' field contains 'person@gmail.com', the 'Name' field contains 'Person', and the 'Phone number' field contains '800-867-5309'. The 'Address' field is empty. The 'Change password' field has a blue button labeled 'CHANGE PASSWORD'. In the top right corner of the settings area, there is a blue button labeled 'EDIT'.

Figure 3: Account Settings

- 3 To change your name or contact information, select **Edit**. Edit the contact information as needed (Name, Phone Number, Address). Select **OK**.

Your changes are saved.

- 4 To change your password, select **Change Password**.

The **Change Password** dialog opens.

- 5 Enter your old password and your new password in the corresponding fields. Then enter your new password again as confirmation in the **Confirm Password** field. Select **Update**.

Your password is changed.

4 Use the Tool

Create a Plan and Upload a Floor Image
Set The Scale and Environment
Draw the Boundary Walls
Draw the Inner Walls
Place Devices and View Coverage
Generate a Report
Export for Use with Other Applications
Manage Plans, Countries, Locations, and Floors
Create or Modify Custom Venue Types
Apply a Venue Type to a Floor

About the User Interface

This topic describes the planning components of the user interface.

Plan Settings

The **Plan Settings** page opens automatically when you first log in. If you are creating a new plan, set the country name to help determine the applicable regulatory domain for the design (affecting channel selection) and device availability. If you want to open an existing plan, you can ignore the **Country** field and just open your plan from the **Manage Plans** list.

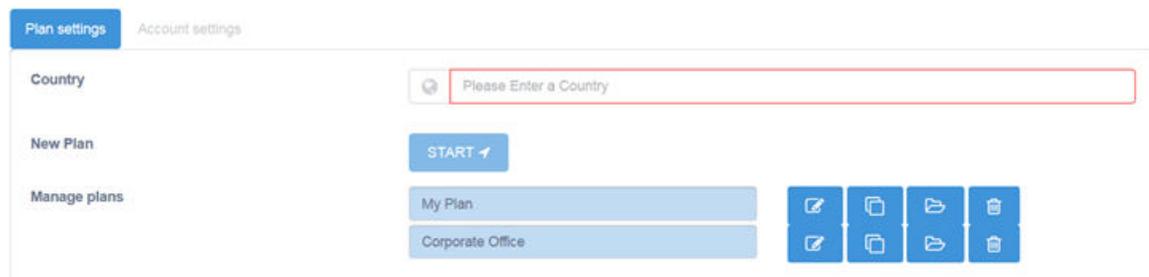


Figure 4: Plan Settings

Floor Plan Editor

If you are creating a floor plan for the first time, you will want to access the first procedure in the workflow, which is [Create a Plan and Upload a Floor Image](#) on page 13. Each topic in the workflow will tell you what your next step in the workflow will be, guiding you easily from start to finish.

The purpose of this section is simply to familiarize you with the different parts of the floor plan editor. Reference this section at any time if you want to understand the purpose of the floor editor tools.

The **Floor Plan Editor** lets you configure and view the floor plan, and displays the details about number of APs, sensors, size of the area, and other information about the floor plan.

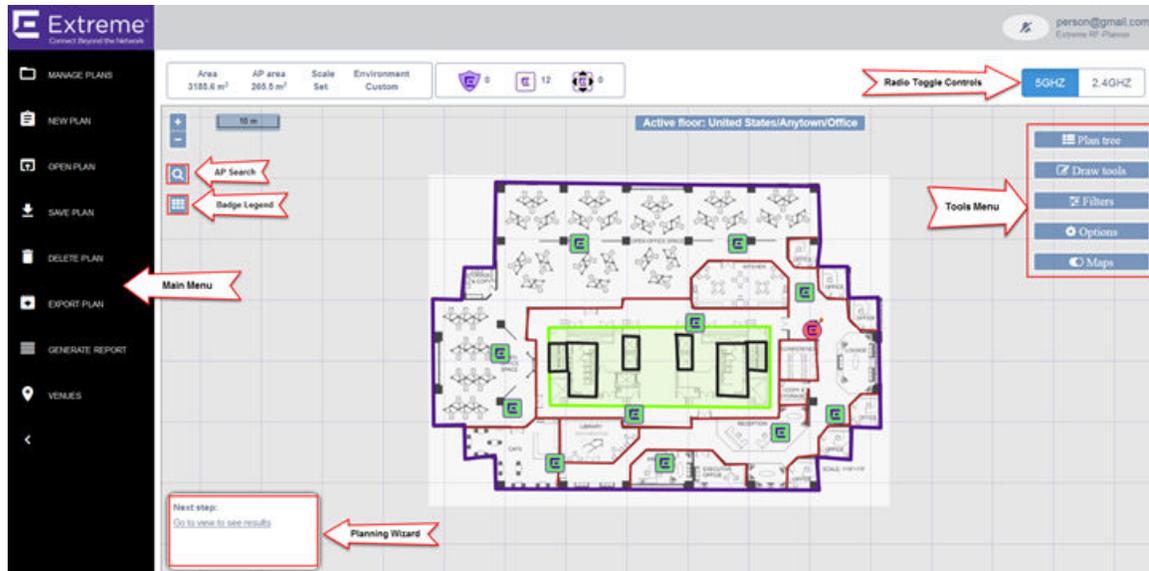


Figure 5: Floor Plan Editor

The **Floor Plan Editor** page has the following tools and options:

Main Menu	Create, manage, save, and export plans, generate reports, and manage venues.
Tools Menu	Select the tools to configure, view, and filter floor plan coverage. The tools are: <ul style="list-style-type: none"> Plan Tree Configure settings for the plan name, country, location, and floors. Draw Tools Upload or import floor images, configure the environment, draw walls and boundaries, set the scale, place APs and sensors, and designate deployment type. Filters Filter your view of the floor plan image with regard to background opacity, AP exclusion zones, channel width, and power. Options Add badges to APs. Also show or hide badges, grids, zones, cameras, and orientations. Maps View your floor plan coverage using the map options: RSS heatmap, channels, location readiness, and link speed. You can view BLE coverage for 2.4 Ghz APs.
Planning Wizard	Guides you through the basic steps to create a floor plan, instead of using the Floor Plan Menu . However, to fine tune and view your coverage, use the Floor Plan Menu .
Radio Toggle Controls	Toggle between 2.4 Ghz and 5.0 Ghz radios to view the difference in coverage.
Search	Search for a specific AP or sensor by serial number, or search for a floor map.
Badge Legend	View the badge descriptions that you optionally assign to APs and floor maps. The badges and colors include the channel width, the radio status (On, Off, Error), the power, and the channel.
Zoom Buttons	Zoom in and out of the floor plan image.

More Information

- [Manage Plans, Countries, Locations, and Floors](#) on page 30
- [Create a Plan and Upload a Floor Image](#) on page 13

Create a Plan and Upload a Floor Image

A plan contains all of the information required to calculate coverage, including a floor image. You can create a new plan, or edit or clone an existing plan. We recommend uploading a background image of a floor for best results. The floor image helps you visualize the relative positioning of devices, validating whether a device can be installed in a selected location, and provides easy definition of scale.



Note

Alternatively, you can clone an existing floor map, and then edit the clone.

The following file formats are supported:

- PNG
- JPEG
- SVG

To create a plan and upload a floor image:

- 1 Log in.

The **Plan Settings** page opens.



Note

If you are already on the **Floor Editor** page, select **New Plan** from the main menu instead.

- 2 From the **Plan Settings** tab, enter a country name. The country name helps to determine the applicable regulatory domain for the design (affecting channel selection) and device availability.
- 3 Next to **New Plan**, select **Start**.

The **New Plan** dialog opens.

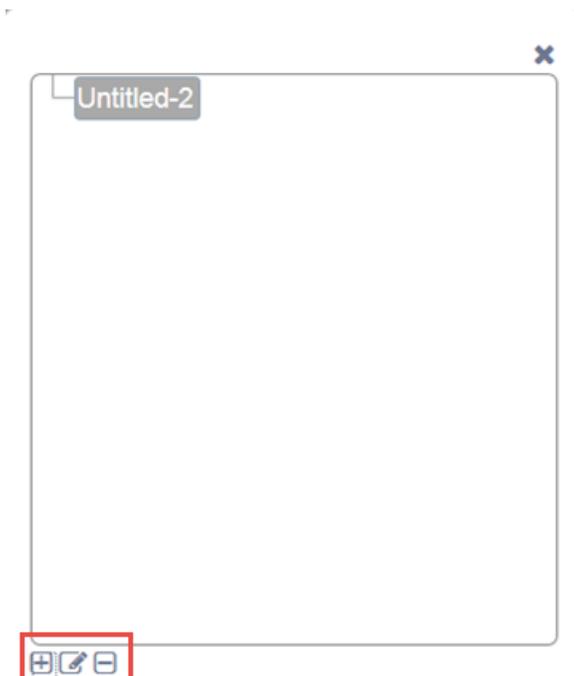
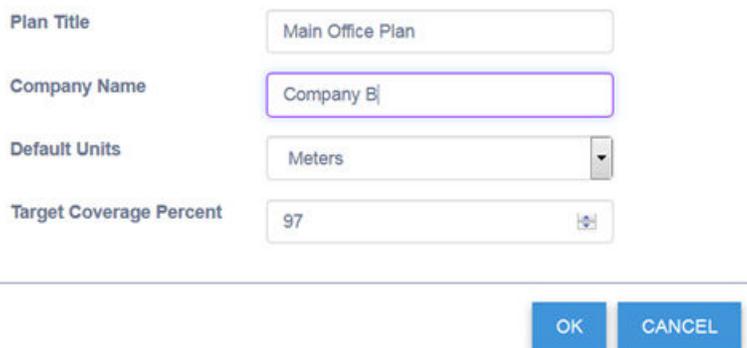


Figure 6: New Plan Dialog

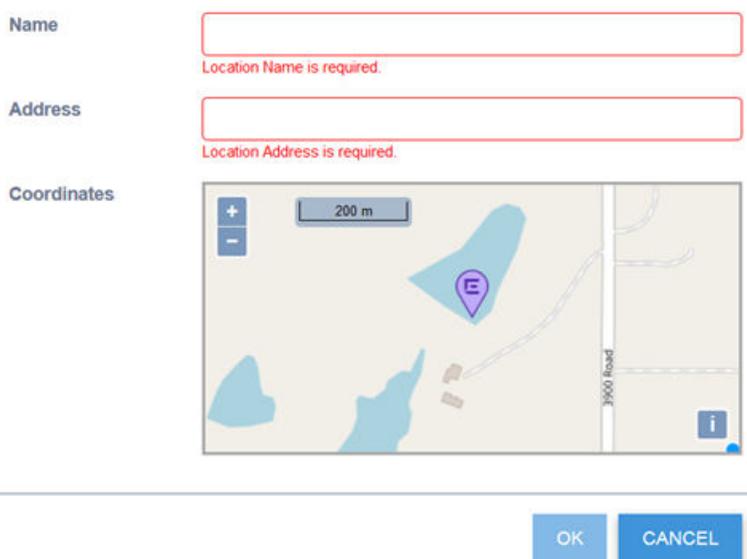
- From the **Plan Tree** controls, select . In the dialog that opens, enter the name of the plan, company name, default measurement units, and your target coverage percentage. Then select OK to save the information.



The dialog box contains four input fields: 'Plan Title' with the text 'Main Office Plan', 'Company Name' with the text 'Company B', 'Default Units' with a dropdown menu showing 'Meters', and 'Target Coverage Percent' with the text '97'. At the bottom right, there are two blue buttons labeled 'OK' and 'CANCEL'.

Figure 7: Plan Information Dialog

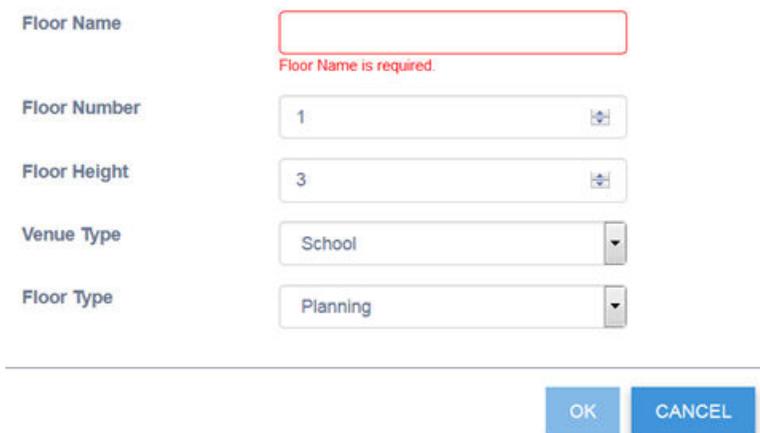
- Highlight the country name in the plan tree. Select . In the **Location** dialog that opens, enter the location information.



The dialog box has three sections: 'Name' with an empty text box and a red error message 'Location Name is required.' below it; 'Address' with an empty text box and a red error message 'Location Address is required.' below it; and 'Coordinates' with a map view. The map shows a purple location pin on a light-colored map with a scale bar of 200 m and a street labeled '3900 Road'. At the bottom right, there are two blue buttons labeled 'OK' and 'CANCEL'.

Figure 8: Location Dialog

- 6 Highlight the location name in the plan tree. Select . Edit the fields in the **Floor Details** dialog that opens.



The screenshot shows the 'Floor Details' dialog box with the following fields and values:

- Floor Name:** An empty text input field with a red border and the error message 'Floor Name is required.' below it.
- Floor Number:** A dropdown menu with '1' selected.
- Floor Height:** A dropdown menu with '3' selected.
- Venue Type:** A dropdown menu with 'School' selected.
- Floor Type:** A dropdown menu with 'Planning' selected.

At the bottom of the dialog are two buttons: 'OK' and 'CANCEL'.

Figure 9: Floor Details Dialog

- Floor Name** Enter a unique name for the floor plan.
- Floor Number** Select the floor number from the drop-down list.
- Floor Height** Enter the approximate height between the floor and the ceiling in meters. Ceiling mount is the default installation type for this tool.
- Venue Type** Set the venue type to determine application density. For each venue type there is a pre-defined device mix, which can be customized.
- Floor Type** Specify **Planning** if the floor is in the planning phase. **Installed** provides visualization of an existing ExtremeWireless deployment and lets you import a list of managed APs from an inventory CSV file. These APs can be manually placed on the floor plan at their installed locations.

When you select **OK**, your floor information is saved and the floor editor page opens.

- 7 From the right menu, select **Draw Tools**.

The **Draw Tools** dialog opens.

- 8 Under **Floor Image**, select .

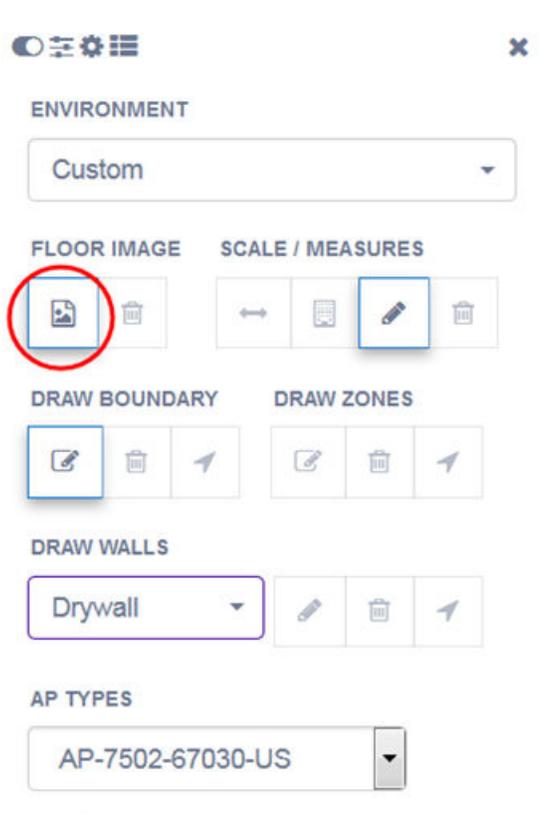


Figure 10: Draw Tools Dialog - Upload Image Options

Your local file browser opens.

- 9 Select a file. If you are importing inventory, select the XML file that contains your inventory. Select **Open**.

The floor plan image opens in the user interface. If you are importing inventory, your inventory is uploaded.

- 10 From the left menu, select **Save Plan**. We recommend that you save your plan intermittently when you make changes that you want to keep.

Next, [set the scale and environment](#).

Set The Scale and Environment

After you upload the floor image, you must set the scale and environment so that the tool calculates coverage accurately.

- 1 In the **Draw Tools** dialog, select the **Environment** drop-down list and set the type of environment for your site (Open Space, Office Cubicles, Dry Walls, Office Hard Walls, Custom). The **Custom** option lets you draw the inner walls for better coverage accuracy. For more information, see [Drawing Inner Walls](#).

- 2 Under **Scale / Measures**, select  to draw a line for a doorway.



Note

In North America, a door width equals approximately one meter or three feet.

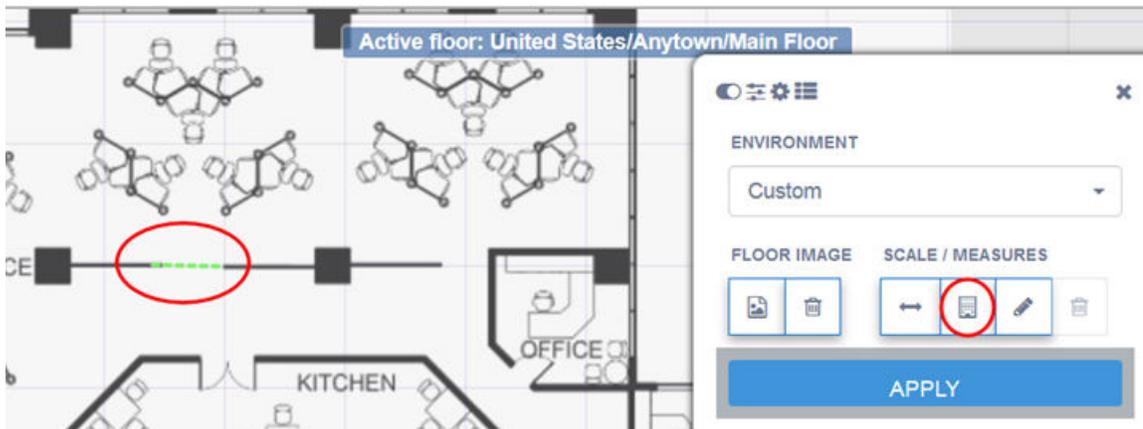


Figure 11: Environment and Scale

- 3 To anchor the beginning of the line, click a point on the map, such as one side of a doorway. As you move your cursor, a green drawing line displays.
- 4 To anchor the end of the line, click another point on the map, such as the other side of the doorway.



Figure 12: Completed Doorway Scale Line

- To set the scale, select the number of length and the unit of measurement (feet or meters) that the drawn line represents. Select **Apply**.

Your settings are applied.

Next, **draw the boundary walls**.

Draw the Boundary Walls

Draw the boundary to define the floor plan area that will be considered for modeling. A boundary must be defined before APs can be placed within it.

- From the **Draw Tools** dialog, under **Draw Boundary**, select .

The pen tool is enabled.

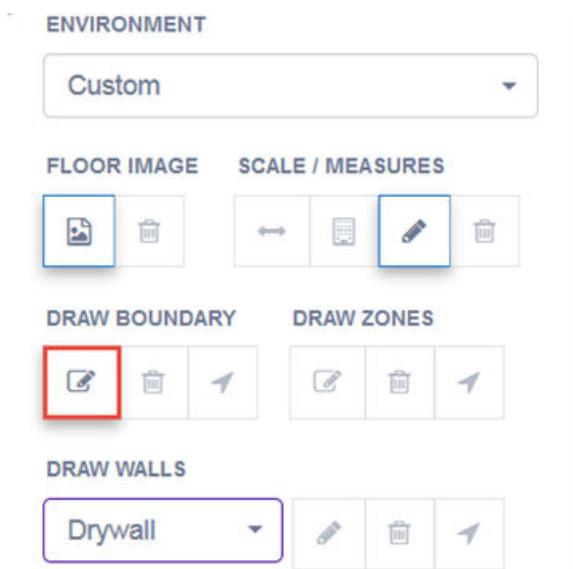


Figure 13: Draw Boundary

- To anchor the beginning of the boundary line, double-click a corner of the outside boundary.
- Click each corner to anchor the line. The drawing line zigzags across the image as you anchor each corner.

Note



If you make a mistake, you can select  and modify the boundary by clicking and dragging sections of it. Alternatively, select  from the menu to remove the entire boundary and start over.

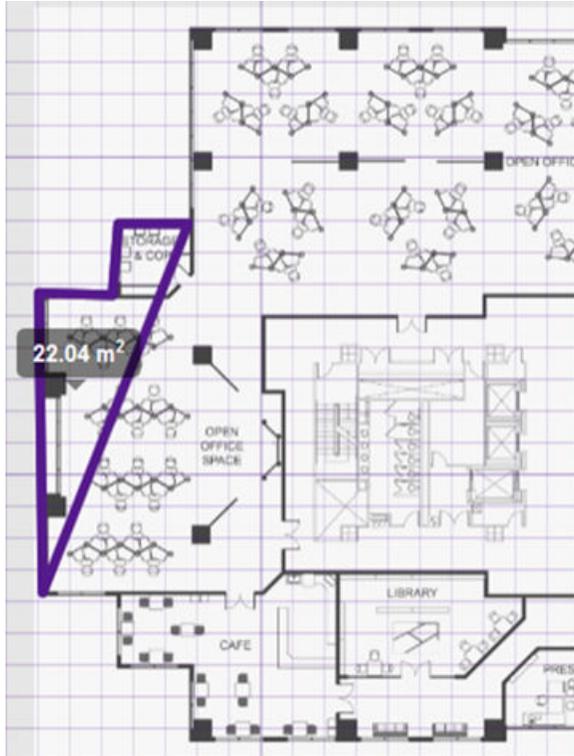


Figure 14: Beginning to Draw Boundary Walls

- 4 When you reach the last corner (which is also your starting point), double-click the last corner to disable the pen tool.

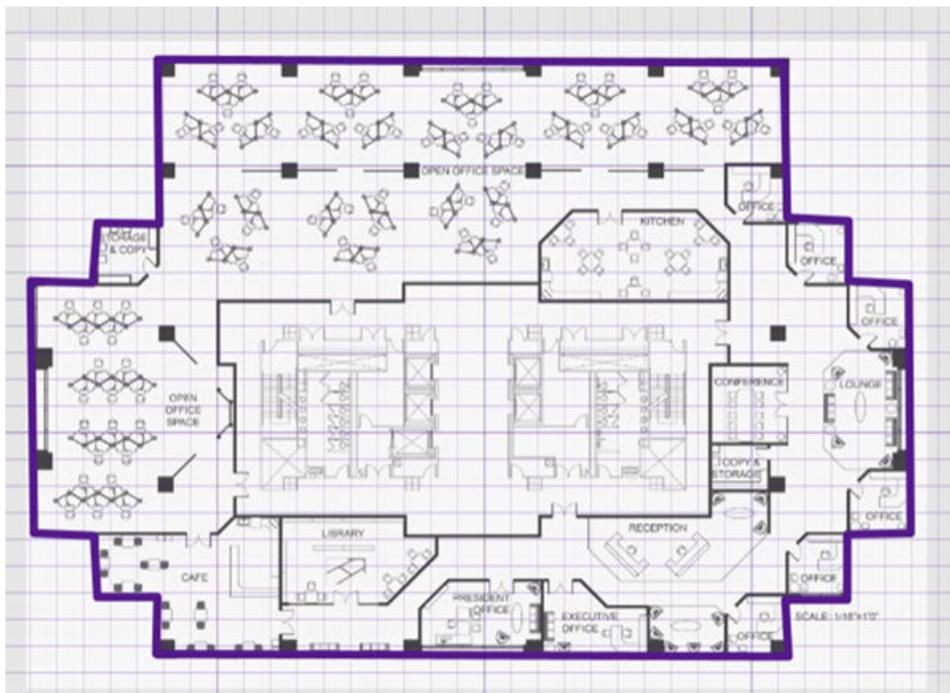


Figure 15: Completed Boundary Walls

Next, draw the inner walls.

Draw the Inner Walls

Wall materials affect the propagation and estimation models. Accurate representation of walls is essential for the accuracy of the model.

We recommend that you can draw inner walls for a custom environment and configure material types, such as concrete around stairwells. It is important that, at minimum, you draw inner walls that are made of concrete or brick because these materials have a strong affect on the propagation. If installation requires that an AP be placed within a walled area, then define both walls on either side of the AP.



Note

If you do not want to create a custom environment and draw the inner walls, you can select basic inner wall types from the **Environment** drop-down list instead, such as office drywalls or cubicle walls. Office drywall has minimal impact on the RF Planner propagation.

You can also draw exclusion zones. For example, you can exclude AP placement from stairwells and washrooms/lavatories. The concrete walls for these areas will still be included as part of the RF calculation, but APs will not be automatically placed in the excluded zone.

To draw inner walls for a custom environment:

- 1 From the **Tools** menu, select **Draw Tools**.
The **Draw Tools** dialog opens.
- 2 From the **Draw Tools** dialog, under **Environment**, select **Custom** from the drop-down list.

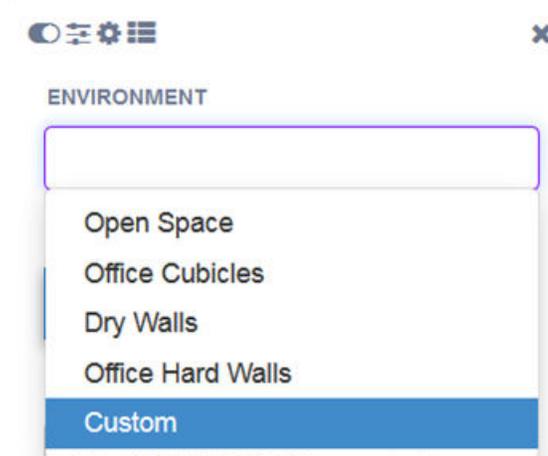


Figure 16: Environment Options

- 3 Under **Draw Walls**, select the material type from the drop-down list (Drywall, Brick, Concrete, Glass), then select .
The pen tool is enabled.
- 4 To anchor the line drawing, double-click a corner of an inner wall.
- 5 Click each corner of the inner wall, as needed, to anchor the line and progress to the next corner.

- When you reach the end of the inner wall boundary, double-click the last corner to anchor the line and disable the pen tool.

**Note**

To change a wall type or to delete a wall, right-click on a wall and choose the appropriate option from the menu that displays. To modify a wall,  under **Draw Walls**.



Figure 17: Inner Walls Drawn for Concrete and Drywall

In this example, the concrete inner walls have black lines and the drywall has red lines.

- Repeat steps 3 - 6 for each area that you want to customize.

- 8 (Optional) To exclude zones from your calculation, under **Draw Zones**, select  and draw a line around the areas that you want to exclude from AP placement.

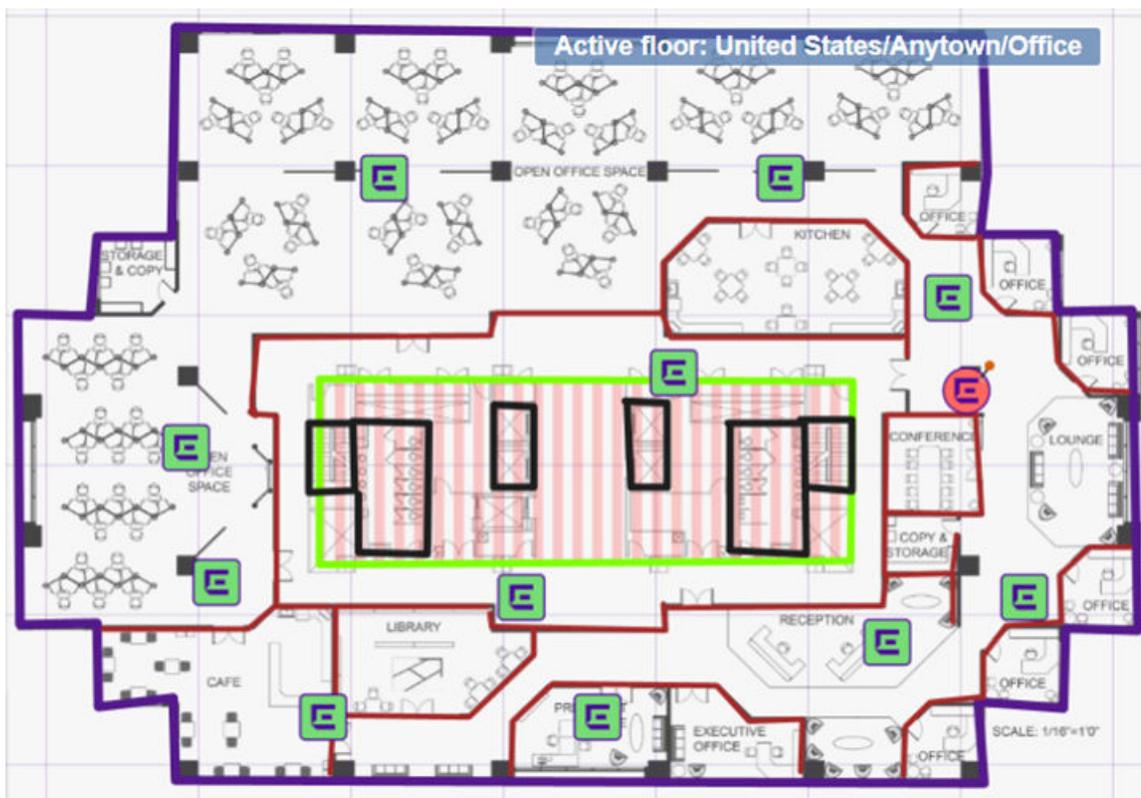


Figure 18: Excluded Zone - Indicated in Green Area

- 9 Right-click on the exclusion zone. In the **Exclude Zone** dialog that displays, you must select  to exclude the zone from the calculations. You can also change the zone ID, give the zone a default name, and delete the zone if needed.

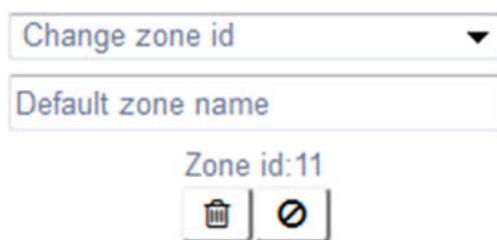


Figure 19: Exclude Zone Dialog

Next, [place the access points and optional sensors](#).

Place Devices and View Coverage

Access points with internal antennas can be placed automatically. We recommend using the **AutoPlace APs** option when you first place the APs and view the coverage in a heatmap.

APs with external antennas and inventory that has been imported from an XML file, must be placed manually. Also, AP3916ic must be placed manually.

Whether placing your APs manually or automatically, you can fine-tune your coverage manually. Options include:

- Adjusting the location of your APs to represent suitable mounting points
- Adding APs to specific locations, such as pre-existing installation points or adding an AP with a camera to security points
- Viewing the heatmaps for either operational band
- Adding sensors automatically

Based on the AP placements, the tool calculates how many users can be served given the application mix, and the device mix. (Device and application mix are set using the **Venue Type** option. Right-click on a floor to modify the **Venue Type**.)

To place the APs and sensors, and view coverage:

- 1 From the **AP Types** drop-down list, select a supported AP model. Then select the density (Throughput, Coverage) that you require for the deployment. **Throughput** yields a higher density deployment (minimum -60dbm). **Coverage** yields a lower density blanket coverage (minimum -70dbm). The design is optimized for 5 GHz coverage.

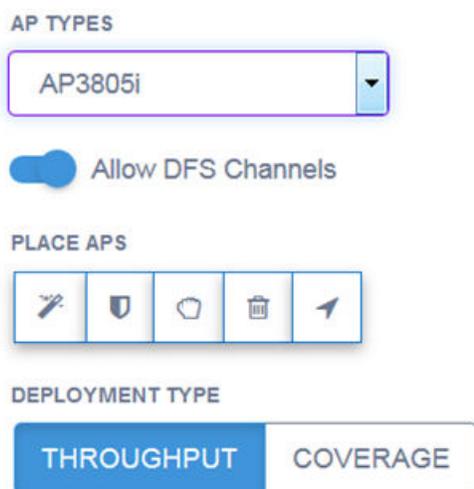


Figure 20: AP Placement Options

The **Place AP** buttons that are enabled depend on the AP model you selected. If you selected an AP model with an external antenna, the **External Antenna** dialog opens.

- (External Antennas Only) In the **External Antenna** dialog, select the antennas for 2.4 and 5 Ghz from the drop-down lists, then select **OK**.

Select external antennas

5Ghz antenna:

2.4Ghz antenna:

Figure 21: External Antenna Dialog

- (Optional) In the **Draw Tools** dialog, select **Allow DFS Channels** to include the APs in the channel plan, if they are available within the selected country.
- Do one or more of the following actions:
 - To autoplacement APs, select . The APs are autoplacement on the floor image.
 - To manually place APs, select . When the AP icon displays, place it in one or more positions on your floor image.
 - To place a sensor, select . The sensors are autoplacement on the floor image.



Note

To reduce the number of sensors, place your APs first, then add the sensors.

- 5 Select **Maps** from the **Tools** menu to open the **Maps** dialog and access the viewing options.

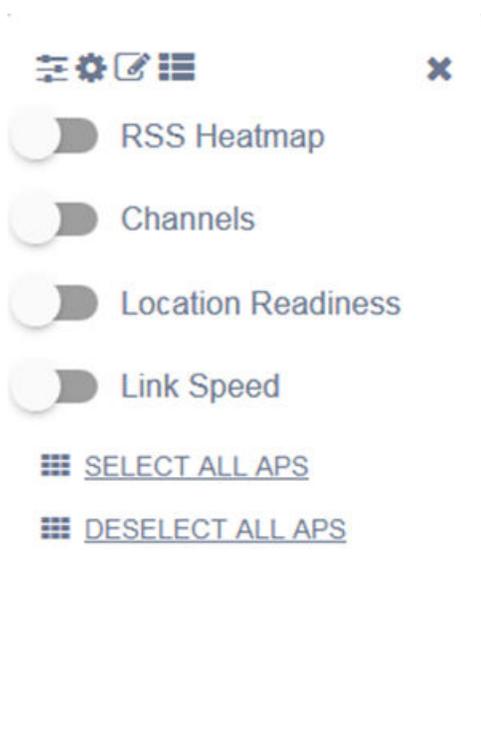


Figure 22: Maps Dialog

RSS Heatmap	Displays the different values of RSS over the floor plan. From the top right corner of the screen, toggle between 5 GHz and 2.4 GHz bands and visualize the differences in the heatmap.
Channels	Displays a visualization of the channel plan.
Location Readiness	Use this option if location accuracy is important to you. Ideally, the floor plan coverage will appear completely green.
Link Speed	Displays the distribution of link speed.
BLE	Displays BLE coverage for 2.4 Ghz radios.

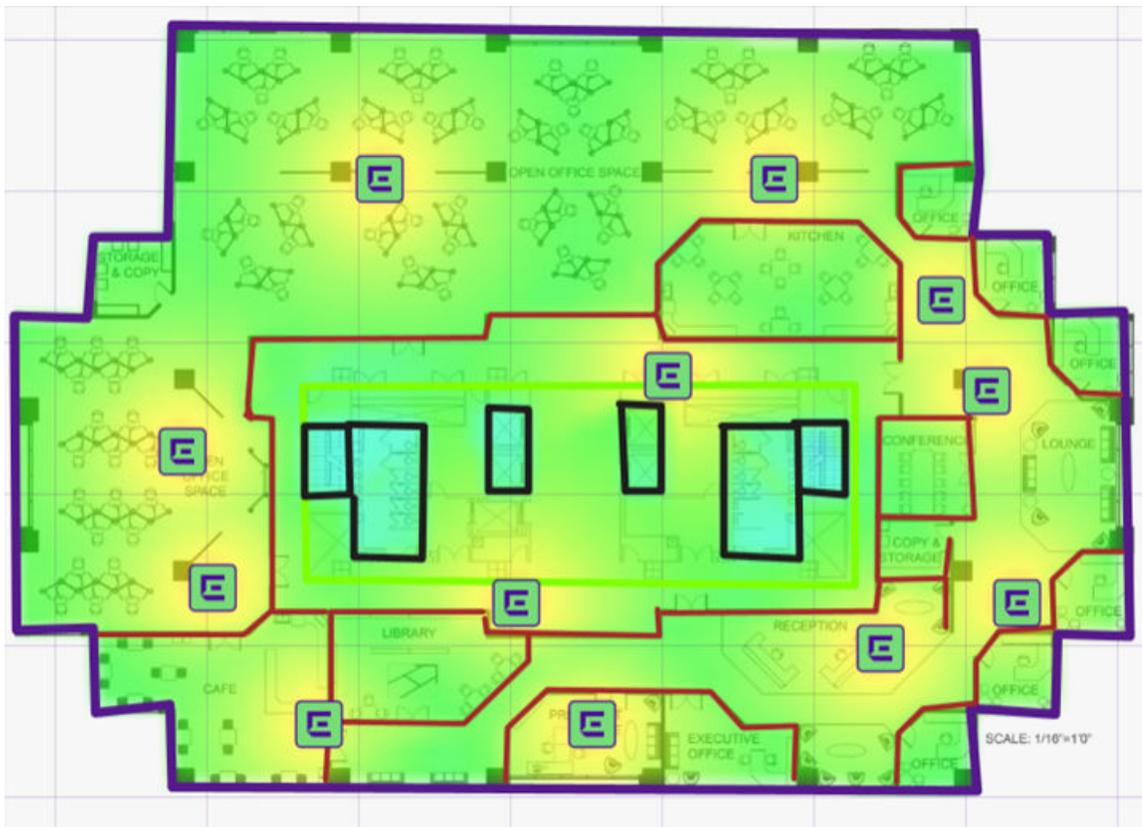


Figure 23: Example of an RSS Heatmap

- 6 (Optional) To apply filters for background opacity, zone opacity, channel width, and power, select **Filters** from the **Tools** menu.
- 7 (Optional) To apply badges, or show/hide badges, grids, zones, cameras, and orientations, select **Options** from the **Tools** menu.
- 8 (Optional) To move an AP, select .
- 9 (Optional) To edit an individual AP, right-click on an AP to open the **Edit AP** dialog. Select the buttons to edit the AP as needed.

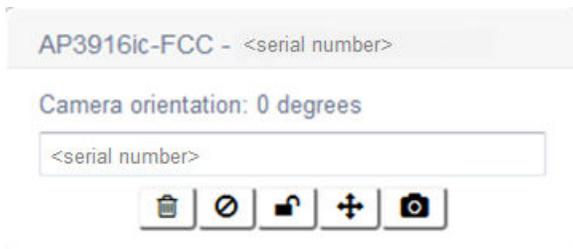


Figure 24: Edit AP Dialog

-  - The **Trash Can** button deletes the AP from the floor image.
-  - The **Exclude** - button excludes the AP from the coverage calculation.
-  - The **Pin** button locks and unlocks the AP in a location on the floor image.

- **+** - The **Orientation** button lets you configure the AP as a ceiling or wall mount installation.
Default: Ceiling mount
 - **📷** - The **Camera** button is only available for AP3916ic and lets you configure the angle of the camera, which impacts the coverage calculation.
- 10 (Optional) For security areas, you can remove a standard AP and add a AP3916ic, which has a camera. The angle of the camera is adjustable on the floor image. For example, you can point the camera towards a doorway. Right-click on the AP. In the **Edit AP** dialog, do the following actions:
- 1 (Optional) Select **+**. Select **Wall Mount**, then set the AP height in meters. Select **OK** to save your changes.
 - 2 Select **📷** to angle the camera towards the security area. To do this, use your mouse to swing the purple arrow so that the narrow end of the isosceles triangle is pointing towards the area that you want to monitor. The camera angle is only representative of orientation and does not account for obstructions that may exist.



Figure 25: Configuring the AP Camera Angle Towards a Doorway

- 11 (Optional) Run the **Autoplace APs** option again to rebalance the coverage with your changes. View the coverage and determine if additional changes are needed.
- 12 Select **Save Plan**.

You can [generate a report](#) or [export for use with ExtremeManagement, ExtremeCloud, or NSE](#).

Generate a Report

Reports can be generated to PDF or DOCX (MS Word) output. DOCX output lets you customize the content after the report is generated.

- 1 Select **Generate Report** from the left menu.
The **Generate Report** dialog opens.

Generate report

Report format

GENERATE REPORT **CANCEL**

Figure 26: Generate Report Dialog

- 2 Select the report format from the drop-down list, and select **Generate Report**.
A report generates information that includes the number of APs required, placement locations, and other information needed for ordering and installing your APs successfully. There are many useful report outputs, including: Channel Map, Channel Plan, and Bill of Materials.

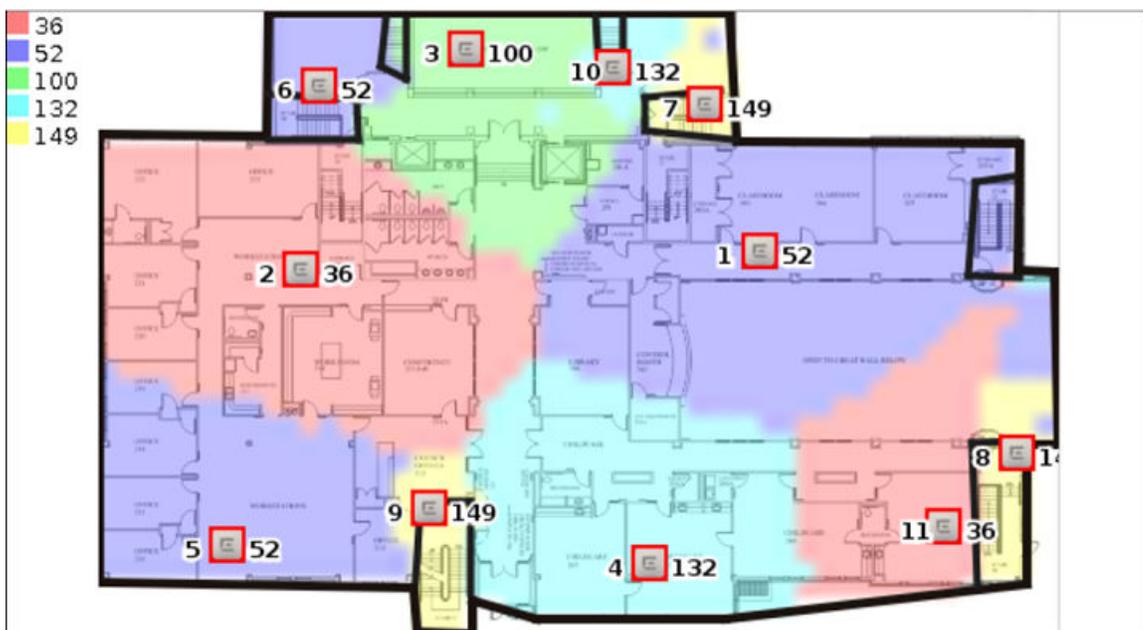


Figure 27: Channel Map

AP	Model	2.4 GHz			5.0 GHz		
		Channel	Power (dBm)	Width (MHz)	Channel	Power (dBm)	Width (MHz)
1	AP3805i	6	13	20	52	13	80
2	AP3805i	1	13	20	36	13	80
3	AP3805i	11	13	20	100	13	80
4	AP3805i	11	13	20	132	13	80
5	AP3805i	11	13	20	52	13	80
6	AP3805i	6	13	20	52	13	80
7	AP3805i	11	13	20	149	13	80
8	AP3805i	1	13	20	149	13	80
9	AP3805i	6	13	20	149	13	80
10	AP3805i	1	13	20	132	13	80
11	AP3805i	11	13	20	36	13	80

Figure 28: Channel Plan

APs by Building and Floor

Default Location

Floor	Product Name	Product Part Number	Quantity
Floor 1	WS-AP3805i	WS-AP3805i	11
Total APs for 'Default Location':			11
Total APs in Plan:			11

Figure 29: Bill of Materials

Export for Use with Other Applications

Your floor plan and AP/sensor placement details can be exported to a zip file for use with ExtremeManagement, ExtremeCloud, and Extreme Services Engine (NSE).

To export a floor plan:

- 1 From the main menu, select **Open Plan**, and select the plan that you want to export.
- 2 From the main menu, select **Export Plan**.

The **Export Plan** dialog opens.

- 3 Select the export format: **ZIP** (for use with ExtremeManagement), or **NSE/Cloud**.

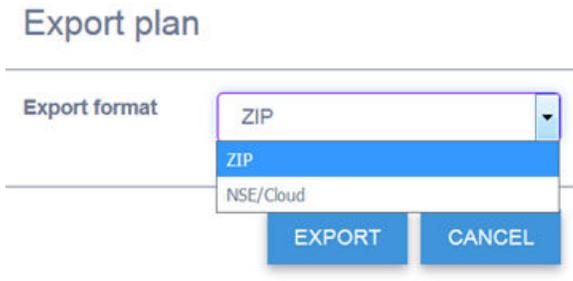


Figure 30: Export Plan Dialog

You are prompted to create and save a file. The ZIP file contains both the floor image and XML files with the planning details, such as AP placement. The NSE/Cloud file contains XML files only.

- 4 Unzip the files to a local drive or other secure location.
- 5 Log in to ExtremeManagement, ExtremeCloud, or NSE and then import the RF Planner files to the chosen application. For more information about importing floor plans into these products, see the product-specific documentation.

Manage Plans, Countries, Locations, and Floors

You can manage plans, countries, locations, and floors.

Manage Plans Dialog

Manage plans by selecting **Manage Plans** in the main menu. The **Manage Plans** dialog opens, where you can clone, edit, open, and delete the plans that you have previously saved.

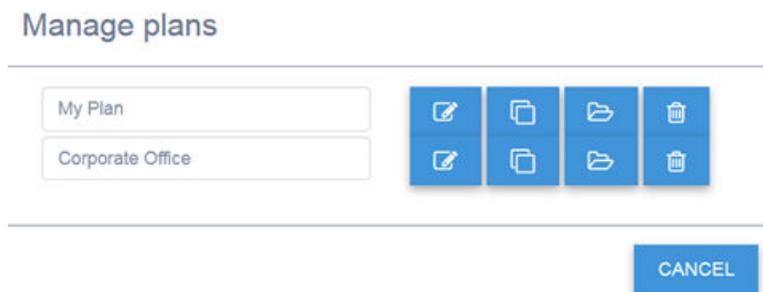


Figure 31: Manage Plans Dialog

Plan Tree Options

When you open a plan, the **Plan Tree** dialog opens. The options that are enabled depend on what level you select in the tree. Option buttons can display in the upper left and bottom left corners of the **Plan Tree** dialog. The levels are plan name, country, location, and floor name.

- Select the top (parent) level to manage the plan details.

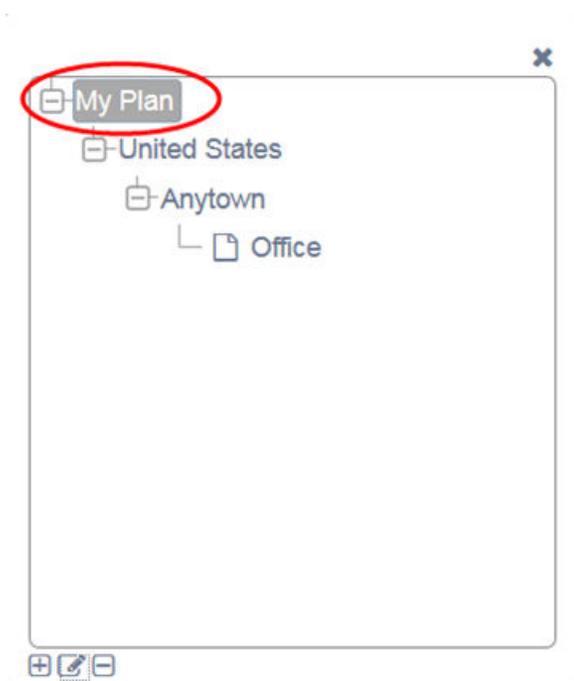


Figure 32: Plan Tree with Plan Name Selected

-  - Add countries to associate with the plan. A plan can be associated with multiple countries.
-  - Add the plan name, company name, default units, and target coverage percentage.

-  - Delete the plan and its children in the hierarchy.
- Select the second (child) level to manage the country details.

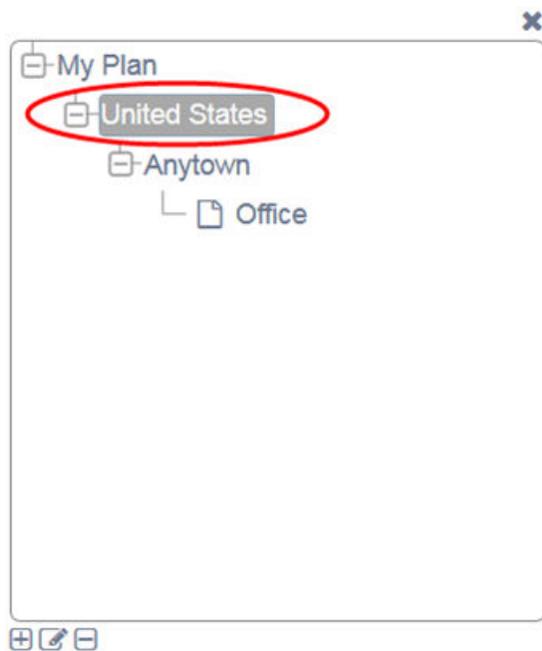


Figure 33: Plan Tree with Country Selected

-  - Add another location to the country.
-  - Edit the country with which the plan is associated.
-  - Delete the country and its children in the hierarchy.
- Select the third (grandchild) level to manage the location details.
 -  - Add another floor to this location.
 -  - Edit the location name and address.

-  - Delete the location and its children in the hierarchy.
-  - Clone the location.
- Select the fourth (great-grandchild) level to manage the floor plan and view coverage using the **Tools** menu.

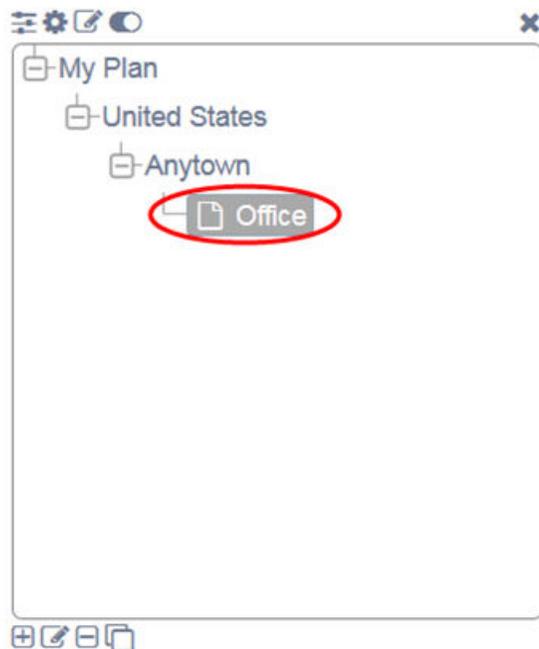


Figure 34: Plan Tree with Floor Selected

Create or Modify Custom Venue Types

You can create or modify custom venue types instead of the pre-defined venue types. (You can also remove custom venue types.) Venue types let you define device and application distributions typical to a particular deployment environment. This distribution profile is then utilized within the model to estimate device capacities for the plan.

To create or modify custom venue types:

- 1 From the main menu, select **Venues**.
The **Venues** dialog opens.

Venues

School **ADD** **EDIT** **REMOVE**

Device Mix %		Application Mix %	
11a Legacy %	<input type="text" value="5"/>	Web %	<input type="text" value="35"/>
11ac Laptop %	<input type="text" value="10"/>	Email %	<input type="text" value="5"/>
11ac Smartphone %	<input type="text" value="10"/>	Video Conference %	<input type="text" value="0"/>
11ac Tablet %	<input type="text" value="20"/>	SD-Streaming %	<input type="text" value="5"/>
11bg Legacy %	<input type="text" value="5"/>	HD-Streaming %	<input type="text" value="5"/>
11n Laptop %	<input type="text" value="10"/>	Apple FaceTime %	<input type="text" value="0"/>
11n Smartphone %	<input type="text" value="20"/>	YouTube %	<input type="text" value="20"/>
11n Tablet %	<input type="text" value="20"/>	Apple TV %	<input type="text" value="5"/>
		Social Media %	<input type="text" value="20"/>
		VoIP %	<input type="text" value="0"/>
		File Sharing %	<input type="text" value="5"/>

Figure 35: Venues Dialog

- 2 In the **Venues** dialog, select **Add** to add a new venue type, or select a previously customized venue type to edit.



Note

You cannot edit the pre-defined venue types (School, Hospital, HighEd, Office) that are built in to the software program.

- 3 Set the device mix and application mix percentages as needed.
The **Save** and **Cancel** buttons are enabled when changes are made.
- 4 To save your changes, select **Save**. To cancel your changes, select **Cancel**. If you did not make changes and want to close the dialog, select **Close** to exit without changing the configuration.
- 5 You can apply the venue type to a floor.

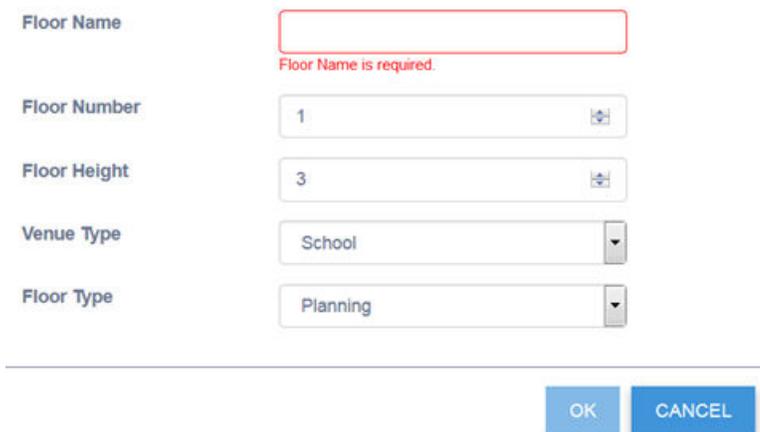
Apply a Venue Type to a Floor

You can change the venue type that is assigned to a floor to a custom or pre-defined value. Custom venue types are used for capacity calculations.

To change the venue type that is assigned to a floor:

- 1 Select a floor plan.
- 2 From the right menu, select **Plan Tree** > .

The **Floor Plan** dialog opens.



The screenshot shows the 'Floor Plan' dialog box with the following fields and values:

- Floor Name:** An empty text box with a red border and the error message "Floor Name is required." below it.
- Floor Number:** A text box containing the value "1".
- Floor Height:** A text box containing the value "3".
- Venue Type:** A drop-down menu with "School" selected.
- Floor Type:** A drop-down menu with "Planning" selected.

At the bottom right of the dialog are two buttons: "OK" and "CANCEL".

Figure 36: Floor Plan Settings

- 3 Under **Venue Type**, select a venue type from the drop-down list.
- 4 Select **OK**.

Your changes are saved.