Wireless Network Manager

Getting Started Guide

SONICWALL®

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About Wireless Network Manager

SonicWall Wireless Network Manager is a cloud-based network management system that simplifies deployment and monitoring of both SonicWave WiFi access-points (AP) and SonicWall Switches. Wireless Network Manager is fully integrated with Capture Security Center, providing seamless integration with MySonicWall, (for licensing and tenant management) and the SonicExpress mobile app on your mobile device (for quick on the go or ad hoc configuration). Cloud Management offers many benefits such as everywhere anytime access for administrators; reduced data center and hardware maintenance and power costs; and instant security patching on availability. Wireless Network Manager offers user configurable access controls, multi-regional options and no memorization of command line arguments needed.

Wireless Network Manager helps your staff employ robust authentication, association, fast and secure roaming, data forwarding, and power and channel management from an easy to manage graphical user interface. SonicWave APs continue to function, pass data and perform security tasks even when cut off from Wireless Network Manager during an ISP outage, ensuring that users on the LAN stay productive.

If you currently manage your wireless network through a SonicWall network security appliance wireless controller, you can choose to upgrade to the convenience of Wireless Network Manager and the advanced security features it supports.

Topics:

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Features

The key features of the SonicWall Wireless Network Manager include:

- **SonicWall Capture Security Center Integration -** Seamless integration of administration, tenant, and inventory into Capture Security Center (CSC), including MySonicWall, Wireless, and Licensing integration.
- **Zero-Touch Provisioning** - Simple provisioning via device on-boarding. SonicWave access points handle all aspects of authentication and association.
- **SonicExpress App Device Registration -** Quick registration of access points using a mobile device QR code scanner, allowing a technician to both install and register a device for instant availability.
- **Cloud-Based Management -** An affordable solution that eliminates the costs associated with hardware, maintenance, cooling, and power.
- **Network Hierarchy/Policy Engine -** An organized policy rule set that allows inheritance from base policies with customization for differing requirements using the network hierarchy and policy engine. The new systems inherit applicable location and zone policy configurations, with no need to manually configure policies with identical requirements.
- **Diagnostics -** Continuous network diagnostics are available with built-in multi-factored health and diagnostics key indexes.
- **Automated Monitoring and Reporting -** Configurable network monitoring and reporting options.

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Prerequisites

To access Wireless Network Manager and fully utilize its functionality, you need these prerequisites:

- System Requirements
- Browser Requirements
- MySonicWall Account
- Supported Devices

System Requirements

Wireless Network Manager requires the user to have access to the following:

- A computer with a supported browser. While most modern browsers are supported, Chrome is the browser most compatible with Wireless Network Manager.
- An active Internet connection
- A MySonicWall account
- At least one device licensed for Wireless Network Manager.

Browser Requirements

Wireless Network Manager is clientless cloud-based application that can be accessed using any web browser with HTML5 support.

MySonicWall Account

To log into the Capture Security Center and access Wireless Network Manager, you must have an active MySonicWall account, with the following requirements:

- A licensed Wireless Network Manager product
- Unrestricted access to the Capture Security Center portal (cloud.sonicwall.com)
- Unrestricted access to public Amazon Web Services (AWS)

For information about setting up a MySonicWall account, refer to Creating a MySonicWall Account.

Creating a MySonicWall Account

You need to have a valid MySonicWall account to use Wireless Network Manager. A MySonicWall account is critical to receiving the full benefits from SonicWall security services, firmware updates, and technical support. MySonicWall is used to license your site and to activate or purchase licenses for other security services specific to your security solution.

To create a new MySonicWall account:

1. Navigate to https://mysonicwall.com.
2. In the login screen, click **Sign Up**.
3. Enter the email address you want associated with your MySonicWall account.
4. Create a password that meets the security requirements.
5. From the drop-down menu select how you want to use two-factor authentication.
6. Finish CAPTCHA and click on **Continue** to go the Company page.
7. Fill your company information and click **Continue**.
8. On the **YOUR INFO** page, complete the details and select your preferences.
9. Click **Continue** to go to the **EXTRAS** page.
10. Select whether you want to add additional contacts to be notified for contract renewals.
11. To set up additional contacts:
    a. Input the **First name**.
    b. Input the **Last name**.
    c. Add the **Email address** for that person
    d. Click **Add Contact**.
12. Select whether you want to add tax information.
13. If providing tax information:
    a. In the **Reseller for** field, select the state from the drop-down menu.
    b. Add your **Federal Tax ID**.
    c. Add the **Expiry (expiration) Date**.
    d. Enter the **Certificate ID**.
    e. Click on **ADD TAX ENTRY**.
14. Select whether you want to add your distributor information.

15. To set up the distributor information:
    a. Input the **Distributor Name**.
    b. Input the **Customer Number**.
    c. Click **Add Distributor**.
16. Click **Finish**.
17. Check your email for a verification code and enter it in the **Verification Code*** field. If you did not receive a code, contact Customer Support by clicking on the support link.

Supported Devices

SonicWall Wireless Network Manager 4.4.0 automatically imports supported devices registered on MySonicWall that are licensed for Wireless Network Manager. Devices can be registered through either MySonicWall.com registration page or from a mobile device through the SonicExpress app.

For more information about registering access points through the app, refer to the *SonicExpress User Guide*. This and other documentation are available under the product “Secure Wireless Products” on the SonicWall support website: https://www.sonicwall.com/support/technical-documentation/.

SonicWave Access Points

Wireless Network Manager is supported for the following SonicWall SonicWave wireless access points:

SonicWave 200 Series	SonicWave 400 Series	SonicWave 600 Series
224w	• 432e	• 621
231c	• 432i	• 641
231o	• 432o	• 681

NOTE:
SonicWave400 series require SonicOS version 9.1.3.5_13 and above.
SonicWave200 series require SonicOS version 9.2.3.5_13 and above.
SonicWave 600 series devices require SonicOS version 9.6.4.0_13 and above.

SonicWall Switches

Wireless Network Manager4.4.0 is supported for the following SonicWall Switches:

Switch SWS12 Series	Switch SWS14 Series
• SWS12-8	• SWS14-24
• SWS12-8POE	• SWS14-24FPOE
• SWS12-10FPOE	• SWS14-48
	• SWS14-48FPOE

NOTE: For the Switch to be managed by Wireless Network Manager, the switch firmware must be version 1.0.0.3-12s or higher. It is highly recommended that you upgrade the Switch firmware to version 1.1 once it is being managed by Wireless Network Manager.

After deploying your SonicWave devices from MySonicWall.com or from the SonicExpress app, access Capture Security Center from MySonicWall.com by choosing the **Services** tile on the left of the screen, then choosing **Available Services**. The Capture Security Center is listed there and you can click on the icon to open Capture Security Center.

NOTE: Alternatively, the user can access CSC directly by the URL cloud.sonicwall.com

Choose the tile for Wireless Network Manager.

Once the Wireless Network Manager dashboard is displayed, navigate to **Network** via the options on the left side of the screen, and then choose **Devices**.

You may now verify that the access points in your environment are active and also the current version of firmware the AP is using.

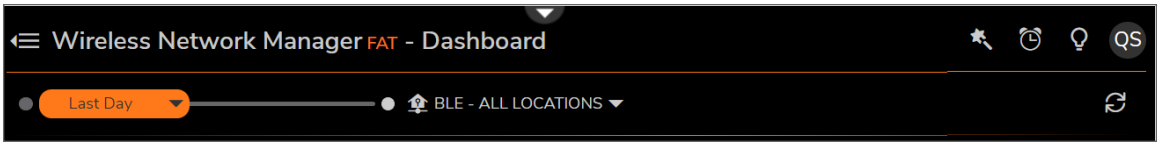
Wi-Fi Quick Start - Checklist - WNM User Guide

If you don't want to do everything manually, then the Wireless Network Manager User Guide is a fast and easy option to get your SonicWall APs up and running, in record time.

The Wireless Network Manager User Guide is an intuitive option available in the interface that guides you the steps needed to setup a new device. It also displays a screenshot of the interface as you navigate using the arrows. In each step, there is a button that directs you to the page where you can perform the necessary actions.

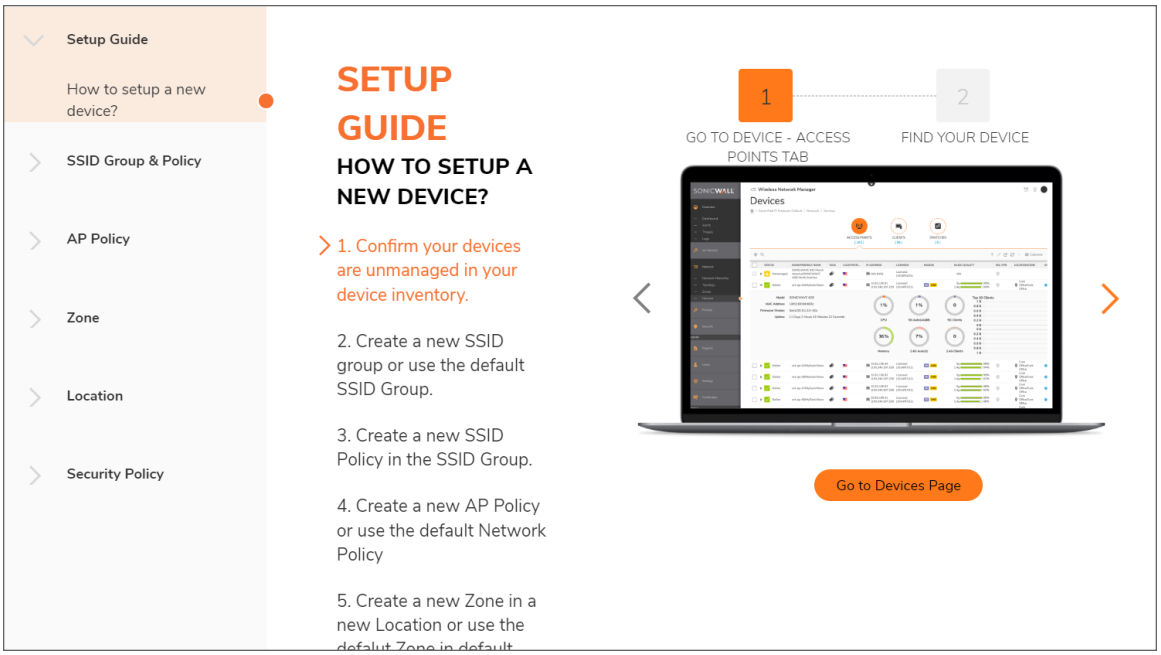
To navigate to Wireless Network Manager Guide:

1. In the first screen that appears when you launch Wireless Network Manager, there are icons on the top right of the screen. Click  and it opens **Wireless Guide** in a separate window.

   You can choose to resize, minimize or close the window. While going through the steps, you may close the window and if you click the icon again, you can resume from where you left off.

2. You can see the sections listed in the left view, step-by-step instructions in the right view with the screenshot of the respective steps. You also have an option to choose **Creating New** if you are creating a new device; or **Default** for the default settings.



At each step shown on the left of the page, there is a corresponding button that will take the user to the correct page to configure the step. Above the button is a short animation along with left and right arrows, showing the user the fields to edit.

WNM Object Organization

Understanding the organization of elements in Wireless Network Manager is key to a successful deployment. There are two major components to Wireless Network Manager - Network components, and Policy Components.

Topics:

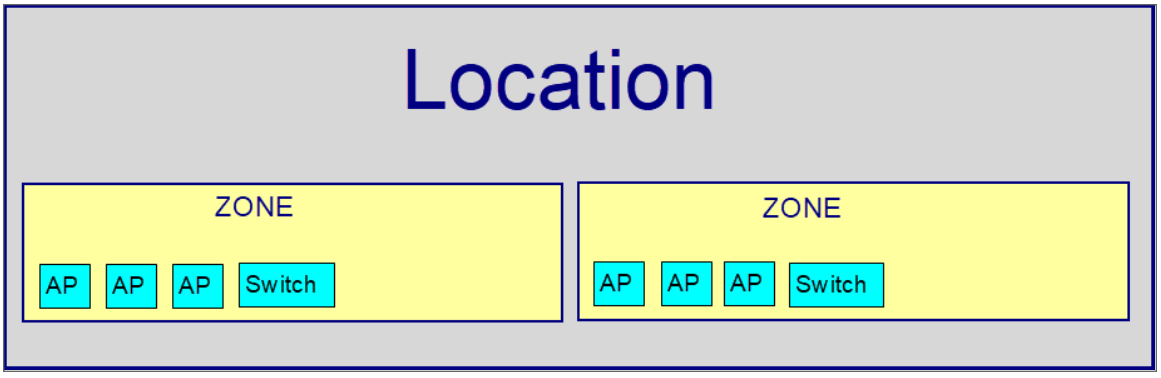
Network Components

Network components organize the physical elements of the environment using a nested object approach. Each location contains one or more zones. Each zone will contain one or more Access points. All network components are mandatory and individual; meaning that an AP may not be shared across two zones, and a zone may not be shared across two locations.

For example, a location called Headquarters, may have a zone for operations with standard security, and a zone for research in a separate building with much more restricted access to protect proprietary information.

Switch Policy Components

Switch Policy components also use a nested object approach and are primarily used to organize rules for how the data traveling through the switches is treated. The Switch Policy may contain other objects or policies such as SNMP policies, PoE schedules, or QoS policies. Switch Policy components also may be shared. A single Switch policy may be attached to more than one zone.

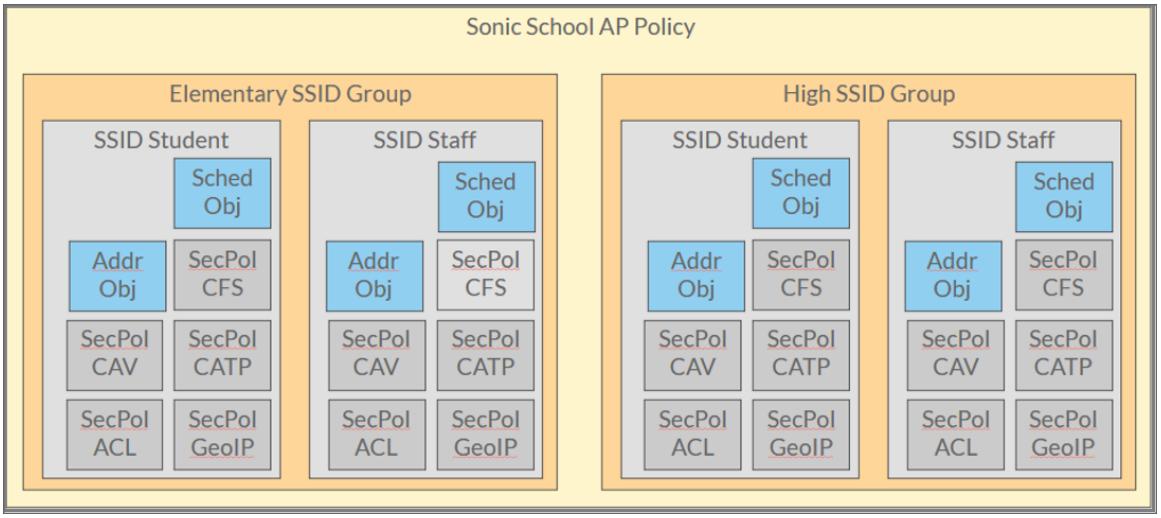


AP Policy Components

Policy components also use a nested object approach and are primarily used to organize rules for how the data traveling through the APs is treated. However, there are some hardware elements revolving around how beaconing, intrusion detection, and client access technologies that are set in policies as well.

Policy components begin with an AP policy that contains SSID Groups. SSID groups contains contain SSID policies, which in turn contain individual SSIDs. The SSID is where the broadcast SSID name and authentication type are set. The SSID may contain other objects or policies such a security policies, schedules, or address objects.

Policy components may be shared. A single AP policy may be attached to more than one zone.



A quick reference to the location of each of these components in Wireless Network Manager is here:

Network Components	**Found at:**
Location	Network Hierarchy
Zone	Zones
AP	Devices
Switch	Devices
Switch Clients	Devices
Policy Components	**Found at:**
AP Policy	AP Policies
SSID Group	SSID Policies
SSID	Added from SSID policy menu after creation
Switch Policy	Switch Policies
QoS Policy	QoS Policies

SNMP Policy	SNMP Policies
Security Policies and Objects Component	**Found at:**
Address Object	Address Objects
Schedule Object	Schedule Objects
Service Object	Service Objects
Matched Objects	Matched Objects
QoS Objects	QoS Objects
App Objects	App Objects
CFS Security Policy	Security Policies, add new policy
Capture ATP Security Policy	Security Policies, add new policy
Content Filter Security Policy	Security Policies, add new policy
Cloud AntiVirus Security Policy	Security Policies, add new policy
GeoIP Security Policy	Security Policies, add new policy
Acces Control List Security Policy	Security Policies, add new policy
App Control Security Policy	Security Policies, add new policy

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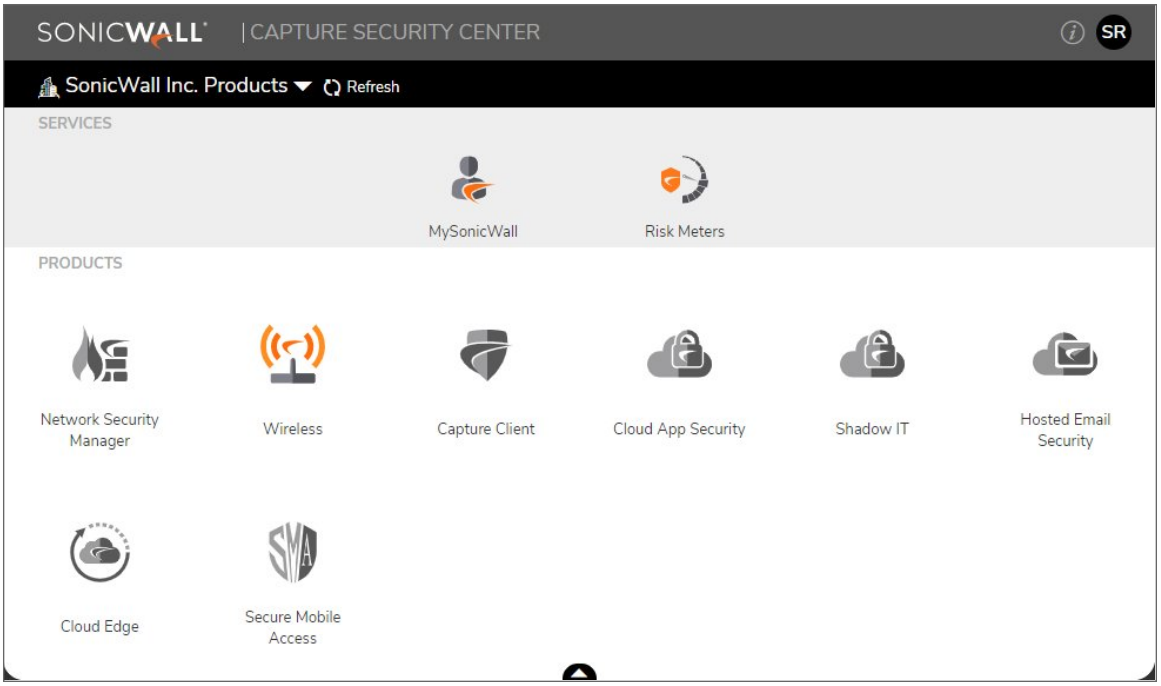
Using Wireless Network Manager

IMPORTANT: Before you access Wireless Network Manager, be sure that all of the Prerequisites have been fulfilled.



Follow these steps to set up your hierarchy to be managed with Wireless Network Manager.

To launch Wireless Network Manager:

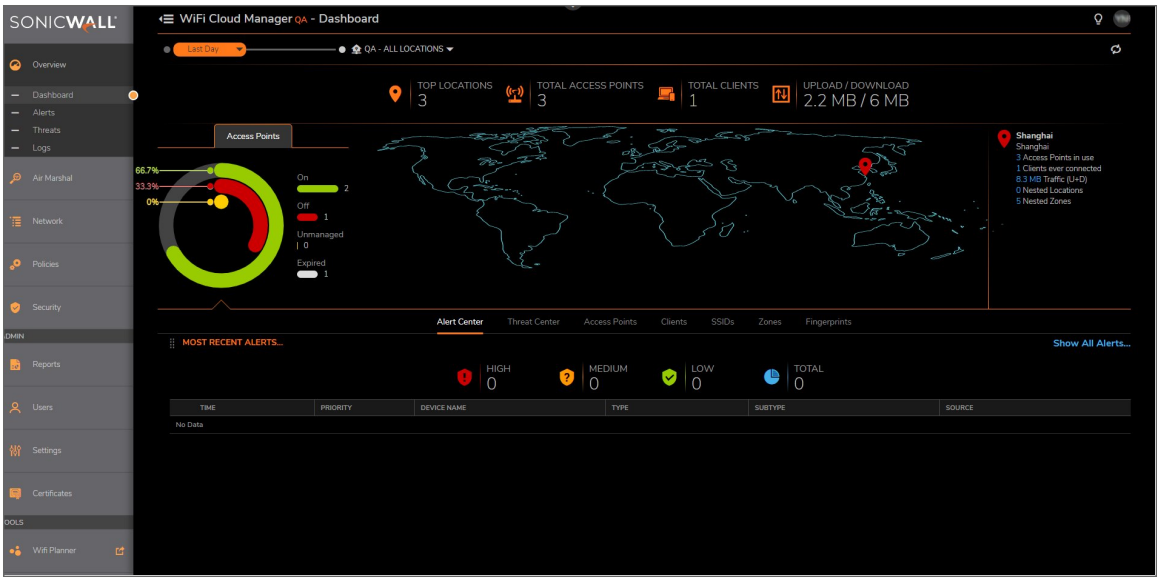
1. On your system computer, navigate to cloud.sonicwall.com.
2. Log onto Capture Security Center with your MySonicWall credentials.
3. If you have more than a single tenant, the **Tenants/Groups** you manage on MySonicWall are available from the drop-down list on the top left of the window.
4. Select the tenant for which you want to set up a hierarchy.
5. Click the **Wireless Network Manager** tile to launch the SonicWall Wireless Network Manager.

Tenants/Groups are organizational elements in SonicWall.com and Capture Security Center that allow separation of different Wireless networks and hierarchies that be unrelated and need to be administratively separate, such as distinct customers, or unrelated businesses. Each tenant will have a distinctly separate Wireless Network Manager hierarchy.

Topics:

Using the Wireless Network Manager Interface

The first screen that appears when you launch Wireless Network Manager is the main screen.



It is from this screen that most of the activities and options start in Wireless Network Manager.

- The screens in the Wireless Network Manager user interface have a main navigation pane down the left side. It is from this pane that the user makes choices for navigating through the various Wireless Network Manager tools, features, and displays.
- The small arrow at the top middle of the screen sends you back to the Capture Security Center.
- Many of the secondary screens have an **X** on the upper right border of the screen. Clicking the **X** sends you back to the main screen for that navigation pane item.

Clicking an option on the left navigation pane can sometimes open other choices. The principal headings on the navigation pane are:

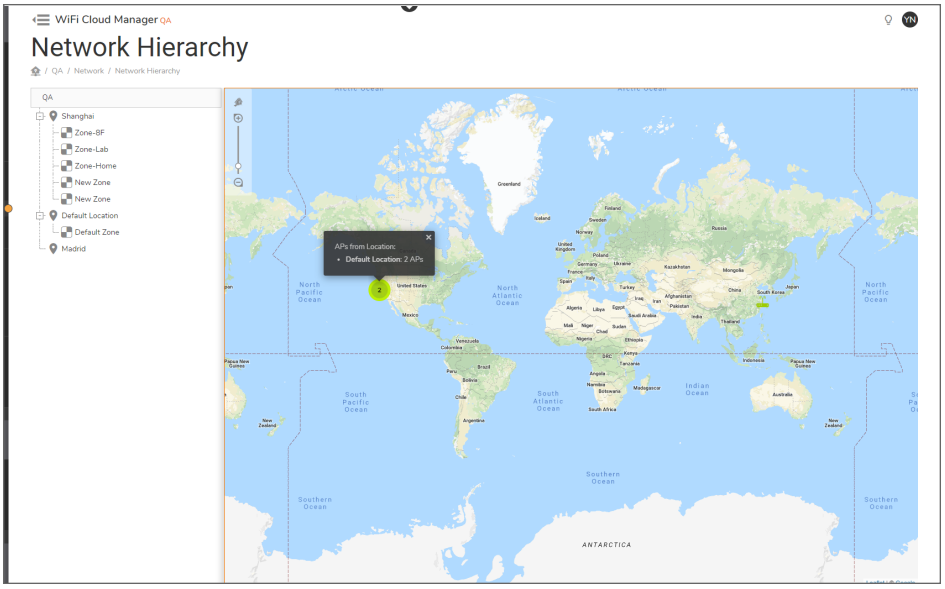
- **Overview** - Summarized information about your environment
- **Air Marshal** -RF Spectrum information
- **Network** - Configuration of network components
- **Policies** -AP, SSID and Switch Policy Configuration
- **Security** - Configuration of Security Policies and Objects
- **Admin** - includes **Reports**, **Users**, **Settings**, and **Certificates**
- **Tools**, which has the **WiFi Planner**

Creating a Wireless Network Hierarchy

If this is the initial configuration of your Wireless Network Manager, the first building block is the location configured in **Network -> Network Hierarchy**.

The current selected tenant is displayed at the top of the panel, and a world map on the right.

You have an existing location called **Default**. You can rename the Default location by hovering over the name and clicking on the pencil icon, or you can add a new location by clicking on the + sign that is on the same menu.

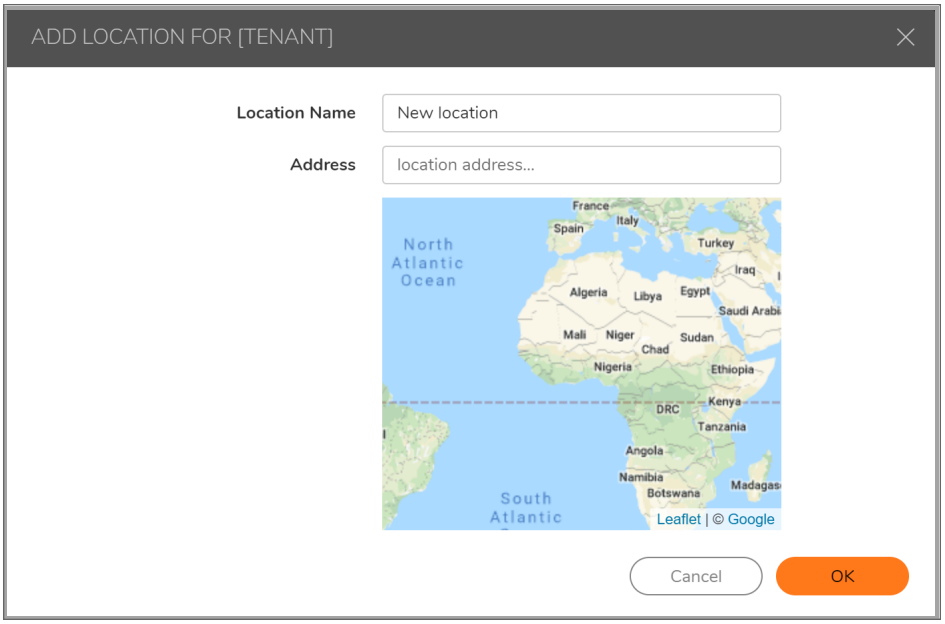


On the **Network Hierarchy** page, the name of the tenant is displayed in a box at the top left; the locations and zones are displayed below it.

Start from this screen to build your hierarchy. Create your network hierarchy by adding or deleting locations and zones under your **Tenant/Group**.

Adding a Location to the Network Hierarchy

Locations are nested beneath the tenant in the network hierarchy listed on the **Network > Network Hierarchy** screen.



To add a location to the Network Hierarchy:

1. Navigate to **Network > Network Hierarchy**.
   When you hover over various items on the screen, choices such as **Add** (a plus + sign) and **Edit/Config** (a pencil) become visible.
2. Hover over an existing location and click the Plus (**+**) icon to add a new location on the **Add Location** screen. A prompt near the Plus (**+**) asks if this is to be a:
   - **sibling location:** added on the same level as the location you clicked on to add it
   - **child location:** added below the location from which it is built. **NOTE:** A new child location cannot be added to a location that already has a Zone.
   - **zone under this location:** nested beneath (inside) the location from which it is built

   Your choice is then reflected in the structure of the hierarchy.
3. Enter the **Location Name** and **Address**.
4. Click **OK**.

The new location is added to the **Network Hierarchy**.

After the location has been configured, add the geographical addresses of the location (for example, US > California > Milpitas) by hovering over the name of the location and clicking on the map pinpoint icon in the pop up menu. The pop up menu asks you to specify the Name of the location and supply a street address.

The location is then displayed on the world map and when selecting the location name, displays a panel on the right showing the address of the location. You can also upload the floor-plans with heat maps if available, using the add floor-plans icon in the panel.

Adding a Zone to a Location

Zones are nested beneath the locations in the network hierarchy. Zones can be geographical areas or environments, such as an upstairs office or warehouse, within a parent location. Multiple zones can be created under the same parent location, but cannot be shared between locations.

To add a new Zone to a location:

1. Navigate to **Network > Network Hierarchy**. The **Tenant/Group** name is listed in a box at the top left of the screen.
2. On the **Network Hierarchy** page, click Plus (**+**) next to the location under which you want to add a zone.
3. Choose **New Zone** at the prompt next to the Plus (**+**) to open the **Add Zone** screen.

4. Enter the **Zone Name** and **Description**.
5. Click **OK**.

The new zone is added to the **Network Hierarchy**. Once your hierarchy is complete, you can start adding access point devices to the zones.

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Managing Devices

After creating a network hierarchy, use the Wireless Network Manager to register and configure the devices - both Access Points and Switches for management and protection.

Topics:

Managing Access Points

After creating a network hierarchy, use the Wireless Network Manager to register and configure access points for management and protection.

Topics:

Registering Access Points with MySonicWall.com

To register your access point on My Products page:

1. In the **Add New Product** section, type the serial number of your SonicWave in the **Serial Number** field.
2. Specify the **Authentication Code** in the field, if your product has an authentication code.
3. Specify **Friendly Name** (for example, San Francisco Office) to identify the product. Using a Friendly Name can help you to manage multiple SonicWall appliances. If you don't enter a Friendly Name, the SonicWall product name is used.
4. Click **Register** to submit the specified information.

The **New Product Details** page is displayed. Your SonicWall product is now registered at the MySonicWall site. After the registration is done, you can view the product registration summary in the **Registered Products** section on the **My Products** page.

Quick Register

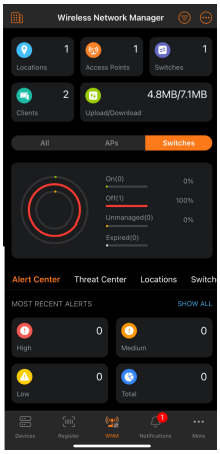
You can also register a SonicWave product by using the **Quick Register** section found on the left side of the MySonicWall page:

To register with the Quick Register section:

1. Type the serial number in the **Quick Register** field.
2. Click the **Next** button. The My Products page is shown with the serial number entered above already populated into the appropriate field in the **Add New Product** section.
3. Specify the **Authentication Code** in the field, if your SonicWall registration requires an authentication code.
4. Specify **Friendly Name** for the appliance.
5. Click **Register**.

Registering Access Points with SonicExpress

The SonicWall SonicExpress app for mobile devices can be used to register access points and doing other management tasks on your Wireless Network Manager network.



After you have created your hierarchy and used the WiFi Planner to determine the best possible wireless deployment for your system, you can use the SonicExpress app to register your access points and create a mesh network, if desired. For more information, refer to the *WiFi Planner User Guide* and the *Wireless Network Manager Administration Guide*. These documents are available under the product name “Secure Wireless Products” on the SonicWall Support website: https://www.sonicwall.com/support/technical-documentation/.

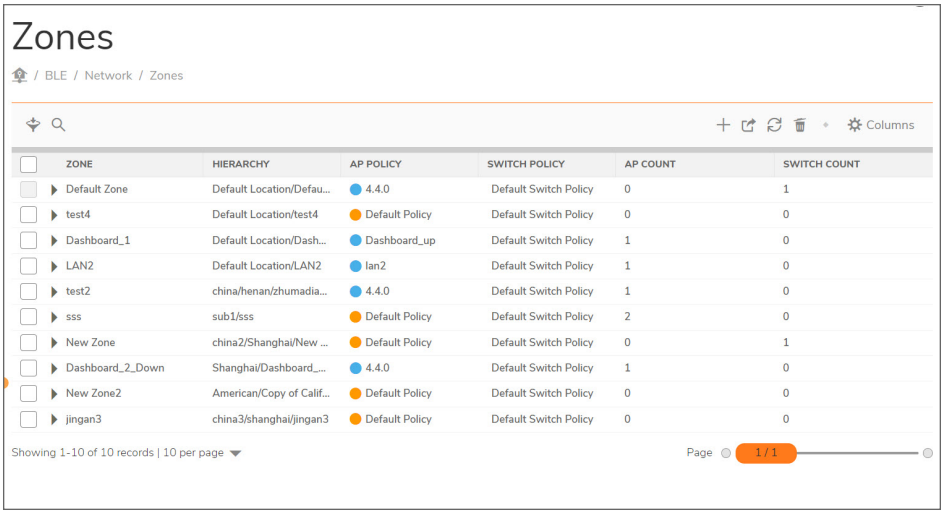
Adding Access Points to a Zone

The newly installed Access Points start functioning once they have been associated with a zone. You may associate an access point with a zone before, or after it's brought online as long as it's been registered in MySonicWall.com. Once powered on, if the access point has internet access, it checks in with MySonicWall.com for configuration information. If it has been associated with a zone, it will receive the zone information and begin servicing clients. If it is not associated with a zone, the AP periodically checks in with MySonicWall.com to see if new zone information has been configured.

When first logging onto Wireless Network Manager, you might have to wait a few moments for the device inventory to synchronize with Wireless Network Manager. Then you can add a new access point device to any of the zones in your hierarchy. All of the devices under the same zone have the same configuration.

To add an access point to a zone:

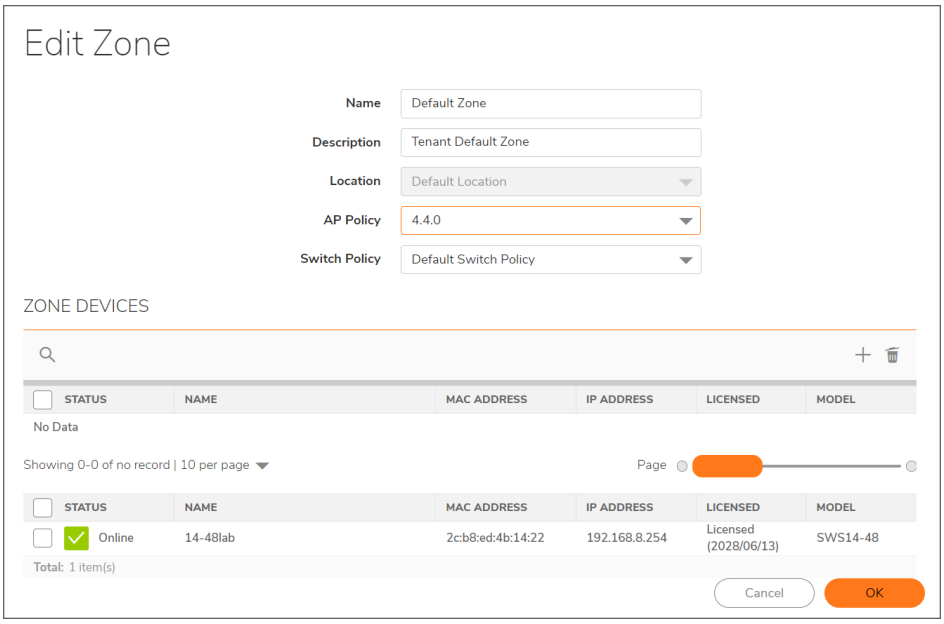
1. Navigate to **Network > Zones**.



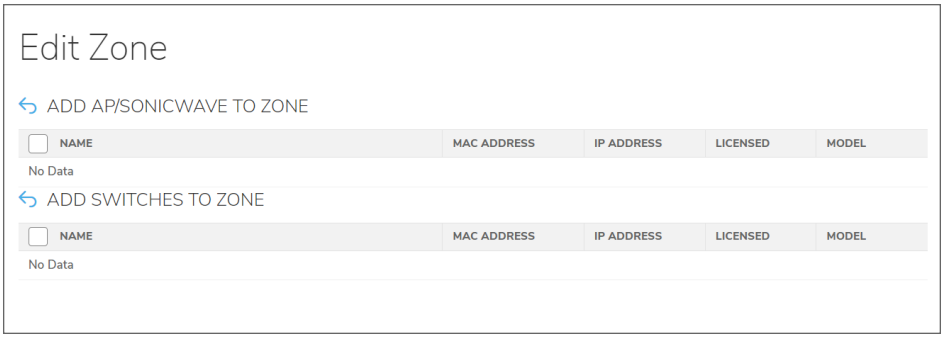
   The page shows the current hierarchy, with the policies and device count in each zone in the bottom panel.

   Hover over the name of zone that the access point is to be associated with or create a new zone if none exists.

2. Click on the pencil icon **Edit/Config** next to the zone you wish to edit. The **Edit Zone** screen displays.

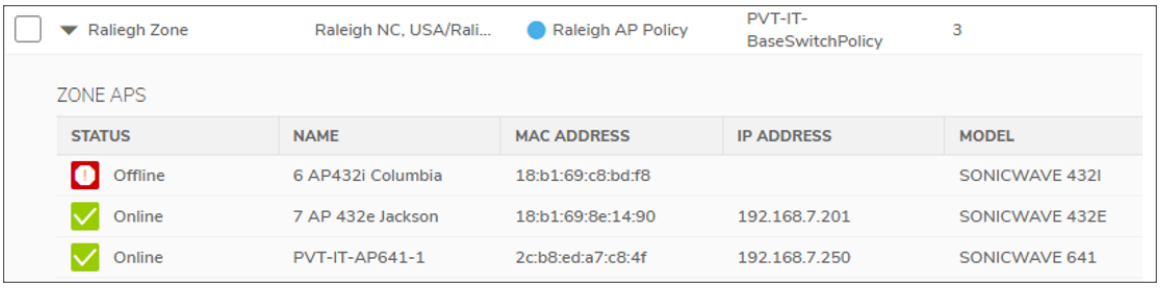


3. In the **Zone Devices** section, click Plus (**+**) on the right. The **Edit Zone/Add Devices to Zone** page displays.



4. Fill in the information about your device.Any available access points or switches not associated with other zones are available to be added to the current zone.
5. Click the checkbox for the switch or access point to be added .
6. Click **Add**.

   You can now see the associated access point listed under the zone once you expand the zone by clicking the down arrow to the left of the zone name.



Managing Switches

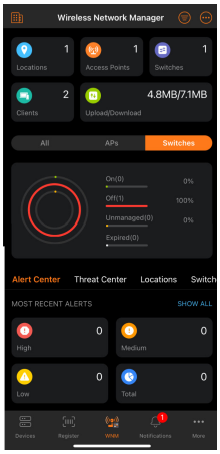
After creating a network hierarchy, use the Wireless Network Manager to register and configure switches for management and protection.

Topics:

- Registering Switches
- Adding Switches to a Zone

Registering Switches

The SonicWall SonicExpress app for mobile devices can be used to register switches and doing other management tasks on your Wireless Network Manager network.



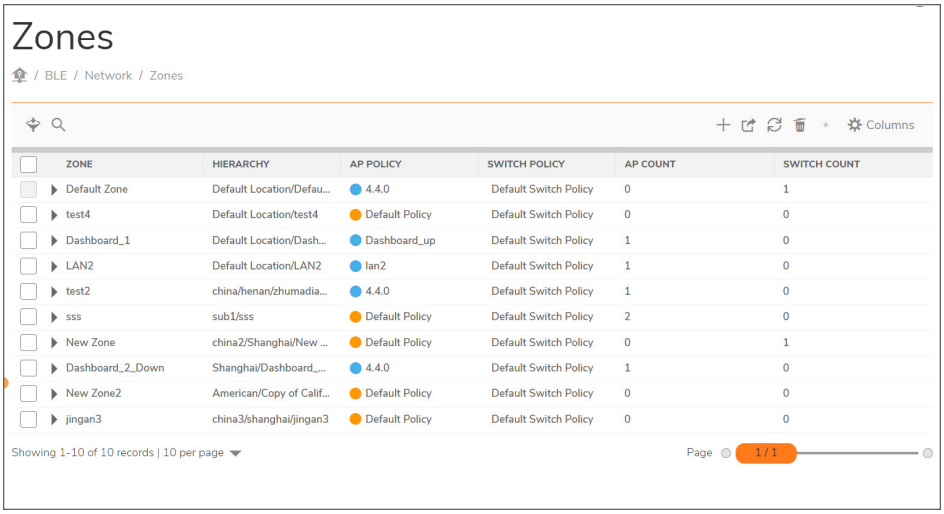
NOTE: You can also register Switch with MySonicWall app. The instructions are same for registering the AP's and Switches For more information, refer to Registering Access Points with MySonicWall.com.

Adding Switches to a Zone

When first logging onto Wireless Network Manager, you might have to wait a few moments for the device inventory to synchronize with Wireless Network Manager. Then you can add a new switch device to any of the zones in your hierarchy. All of the devices under the same zone have the same configuration.

To add a switch to a zone:

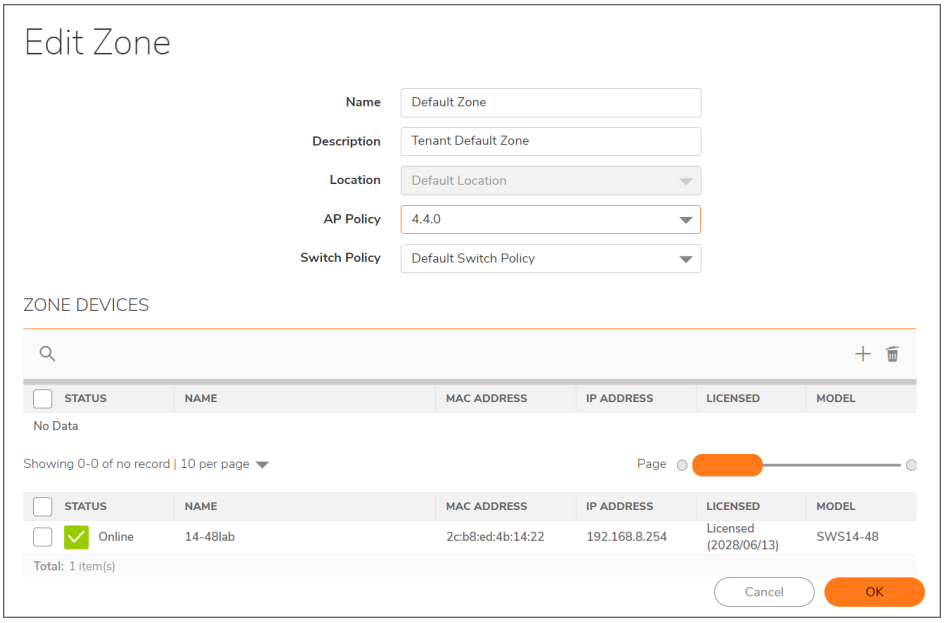
1. Navigate to **Network > Zones**.



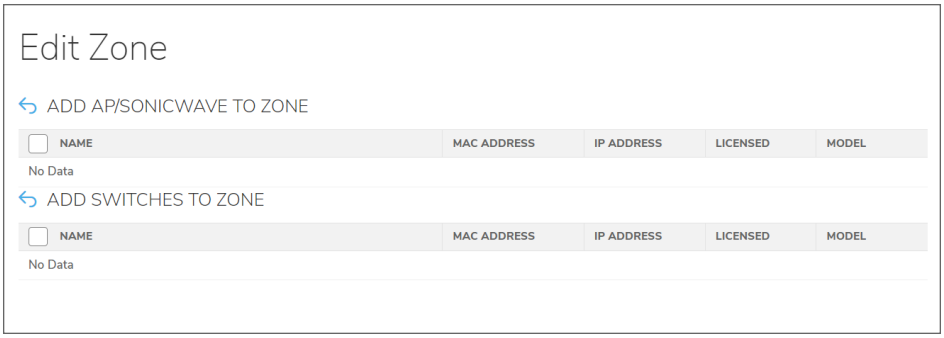
The page shows the current hierarchy, with the policies and device count in each zone in the bottom panel.

Hover over the zone row to display the available options on the far right.

2. Click **Edit/Config** next to the zone you wish to edit or add a device. The **Edit Zone** screen displays.



3. In the **Zone Devices** section, click Plus (**+**) on the right. The **Edit Zone/Add Devices to Zone** page displays.



4. Fill in the information about your device.
5. Click **Add**.

The device is added to the zone and to the **Zone Devices** list.

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Subscription Services

Purchase of SonicWave access points includes Secure WiFi wireless cloud and support services. Additional Advanced WiFi wireless cloud and security subscription services are available for purchase from **MySonicWall > Product Management > My Products**. These features are described in the Wireless Network Manager Administration Guide available under the product name “Secure Wireless Products” on the SonicWall Support website at: https://www.sonicwall.com/support/technical-documentation/.

The services available for SonicWave 200 series (231c/224w/231o), SonicWave 400 series (432e/432i/432o), and SonicWave 600 series (621/641/681) access points include:

Wireless Cloud Services	Secure WiFi (included)	Advanced WiFi (with subscription)
WiFi Cloud Manager	yes	yes
WiFi Planner	yes	yes
Secure Cloud WiFi (Wireless IDP, Rogue AP Protection, RF Monitoring)	yes	yes
Advanced Secure Cloud WiFi (Capture ATP, Content Filtering Service, and Cloud AV)	no	yes

Support Services	Secure WiFi (included)	Advanced WiFi (with subscription)
Wireless 24x7 Support	yes	yes
Software and Firmware updates	yes	yes
Hardware Warranty	yes	yes

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Licensing Devices

Devices are licensed from MySonicWall.com or from the SonicExpress app on your mobile device.

To license a device:

1. Navigate to MySonicWall.com with your MySonicWall.com credentials.
2. Click **Tenant Products**.
3. Select and edit a SonicWave access point.
4. Click **Licenses** to license a device.
5. Hover over SonicWave to display the shopping cart icon. The **Select a service** page displays.
6. Select a service from the drop-down menu, then click **Buy Now**.
7. Click **Add to select services for your Wireless Network Manager**. The services appear in your shopping cart.
8. Click the cart icon at the top right of the screen to open the shopping cart.
9. Review your selections, then click **Checkout**.
10. Follow the prompts to complete your purchase.

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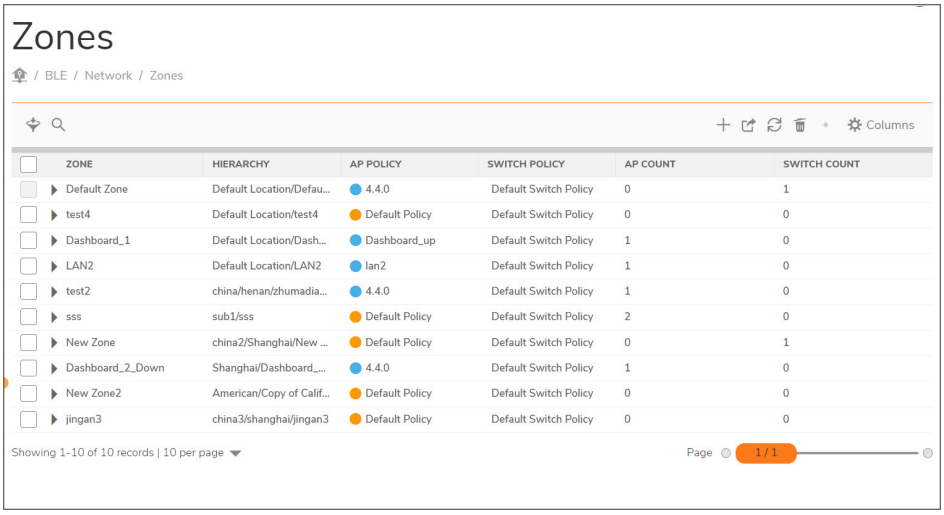
Attaching Policies

After you have configured your network hierarchy and determined your licensing requirements, you can start attaching policies to your zones.

By default, zone policies are inherited from tenant policies. You can search, sort, delete, edit, or create new policies for any of the zones in your hierarchy. For more information on policies, see the *Wireless Network Manager Administration Guide*, which is available under the product name “Secure Wireless Products” on the SonicWall Support website: https://www.sonicwall.com/support/technical-documentation/.

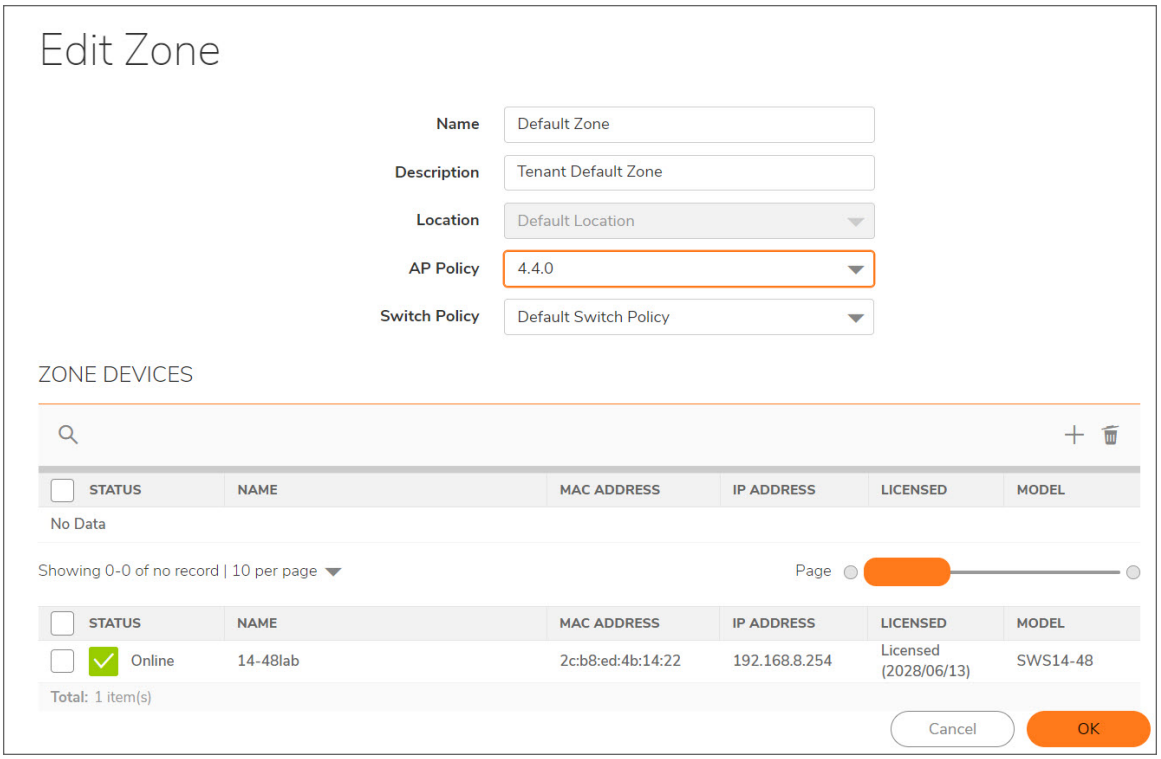
To attach a policy:

1. From the main screen navigation pane, navigate to **Network > Zones**.



2. The **Default Policy** check-box in the top panel is automatically selected, along with any other policies in force. A **Network Policy** is applied to each zone under the tenant, as seen in the bottom panel.
3. To select a different zone policy, hover over a **Zone** row to display the available options..

4. Click **Edit/Config**. The **Edit Zone** page displays.



5. From the **Network Policy** list, select a policy.
6. Click **OK**.

The chosen policy is applied to that zone, and listed on the **Network > Zones** page.

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SonicWall Support

Technical support is available to customers who have purchased SonicWall products with a valid maintenance contract.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year.

The Support Portal enables you to:

- View Knowledge Base articles and Technical Documentation
- View and participate in the Community Forum discussions
- View Video Tutorials
- Access MySonicWall
- Learn about SonicWall Professional Services
- Review SonicWall Support services and warranty information
- Register to SonicWall University for training and certification

About This Document

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End User Product Agreement

To view the SonicWall End User Product Agreement, go to: https://www.sonicwall.com/legal/end-user-product-agreements/.

Open Source Code

SonicWall Inc. is able to provide a machine-readable copy of open source code with restrictive licenses such as GPL, LGPL, AGPL when applicable per license requirements. To obtain a complete machine-readable copy, send your written requests, along with certified check or money order in the amount of USD 25.00 payable to "SonicWall Inc.", to:

General Public License Source Code Request
Attn: Jennifer Anderson
1033 McCarthy Blvd
Milpitas, CA 95035