Secure Mobile Access 500v 10.2

Getting Started Guide

for AWS

SONICWALL®

Contents

1

Introduction

This Getting Started Guide contains installation procedures and configuration guidelines for deploying the SonicWall SMA 500v for AWS Virtual Appliance on a server in your network. The SMA 500v for AWS includes a software appliance, which has been preinstalled and preconfigured for your virtual environment, and allows for the secure and easy development of the SMA 500v for AWS Virtual Appliance solutions within that virtual environment.

SonicWall takes the challenge of the rapid pace of cloud transformation and extends the security of the private cloud to public clouds with the SonicWall Secure Mobile Access 100 series. The SMA 500v for AWS provides you with economy-of-scale benefits of virtualization. This provides all the security advantages of a physical Secure Mobile Access 100 appliance with the operational and economic benefits of virtualization, including system scalability and agility, speed of system provisioning, simple management, and cost reduction.

The SMA 500v for AWS provides the following benefits:

- **Scalability and Redundancy**
    - Multiple virtual machines can be deployed as a single system, enabling specialization, scalability, and redundancy.
- **Operational Ease**
    - You can virtualize your entire environment and deploy multiple machines within a single server or across multiple servers.
- **Product Versatility**
    - SMA 500v for AWS is compatible with other SonicWall platforms either as a stand-alone (All-in-One) unit, control center, or as a remote analyzer.
- **Security**
    - SMA 500v for AWS provides an optimized, non-tamperable software and hardware architecture.

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Before You Begin

Topics:

Supported Platforms

The following AWS instance types are recommended:

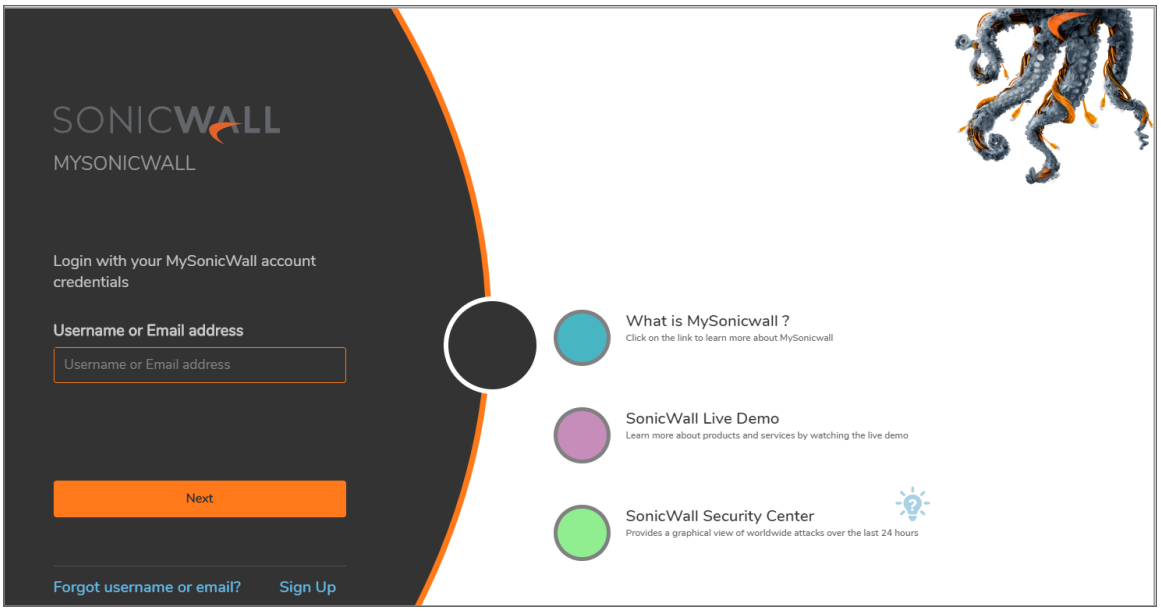
- t2.medium (2 vCPUs and 4G memory)
- t2.large (2 vCPUs and 8G memory)
- t2.xlarge (8 vCPUs and 16G memory)
- t2.2xlarge (8 vCPUs and 32G memory)

Creating a MySonicWall Account

A MySonicWall account is required for product registration. If you already have an account, log in and continue to the Registration section.

To create a MySonicWall account:

1. In your browser, navigate to www.MySonicWall.com.
2. In the login screen, click the **Sign Up** link.



3. Complete the account information, including email and password.
   ⓘ | **NOTE:** Your password should be at least eight characters, but no more than 30 characters.
4. Enable two-factor authentication if desired.
5. If you enabled two-factor authentication, select one of the following authentication methods:
   - **Email (one-time passcode)** where an email with a one-time passcode is sent each time you log into your MySonicWall account.
   - **Microsoft/Google Authentication App** where you use a Microsoft or Google authenticator application to scan the code provided. If you are unable to scan the code, you can click on a link for a secret code.
6. Click **CONTINUE** to go to the **Company** page.
7. Complete the company information and click **CONTINUE**.
8. On the **Your Info** page, select whether you want to receive security renewal emails.
9. Identify whether you are interested in beta testing new products.
10. Click **CONTINUE** to go to the **Extras** page.
11. Select whether you want to add additional contacts to be notified for contract renewals.
12. If you opted for additional contacts, input the information and click **ADD CONTACT**.
13. Click **DONE**.
14. 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 the link.
15. Click **DONE**. You are returned to the login window so you can login into MySonicWall with your new account.

ⓘ | **NOTE:** MySonicWall registration information is not sold or shared with any other company.

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Installing the SMA 500v for AWS Virtual Appliance

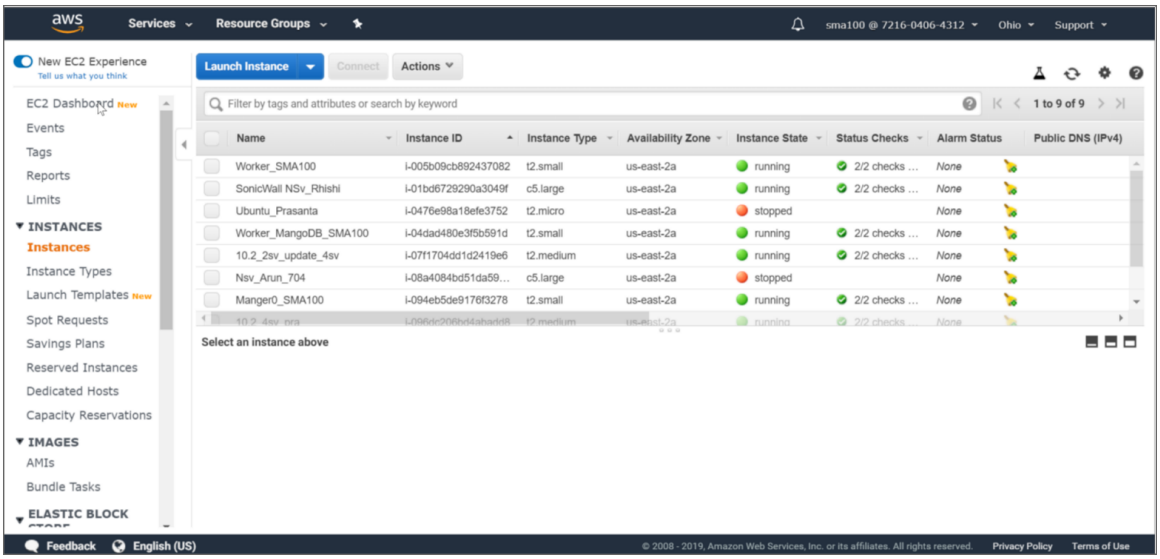
Topics:

Installing SMA 500v for AWS

This section explains how to deploy the SonicWall SMA 500v for AWS image in your AWS environment.

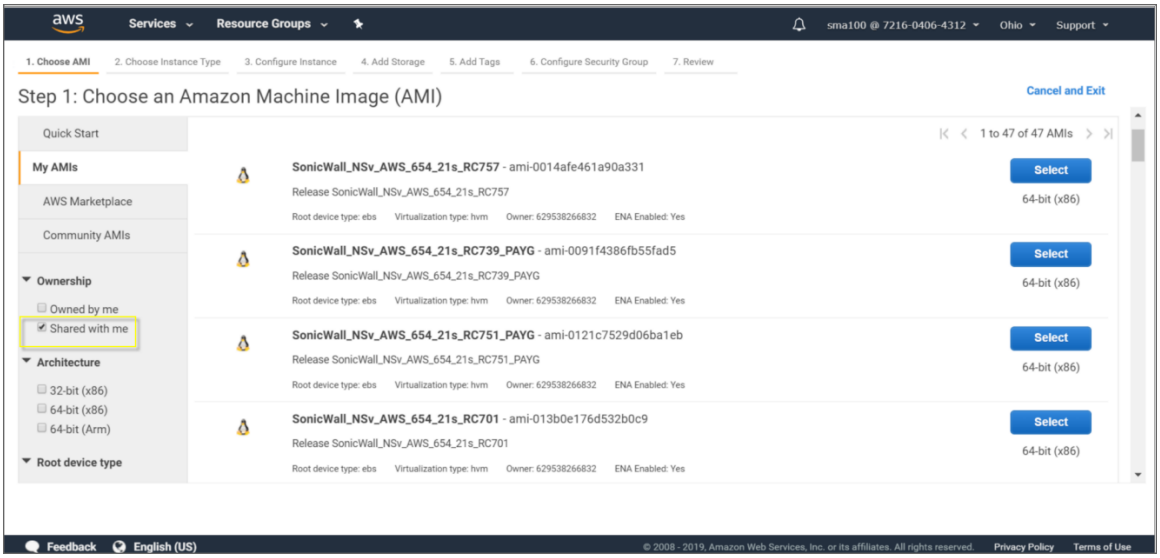
To install the SMA 500v for AWS from the AWS console:

1. Log into the AWS management console at https://aws.amazon.com.
2. To launch the SMA 500v for AWS instance:
    a. From the **Services** drop-down menu select **EC2** under **Compute**.
    b. Click **INSTANCES** on the EC2 Dashboard.



c. Click **Launch Instance**.

d. In the **Choose an Amazon Machine Image (AMI)** page, click **My AMIs** in the left pane and select **Shared with me** under **Ownership**.

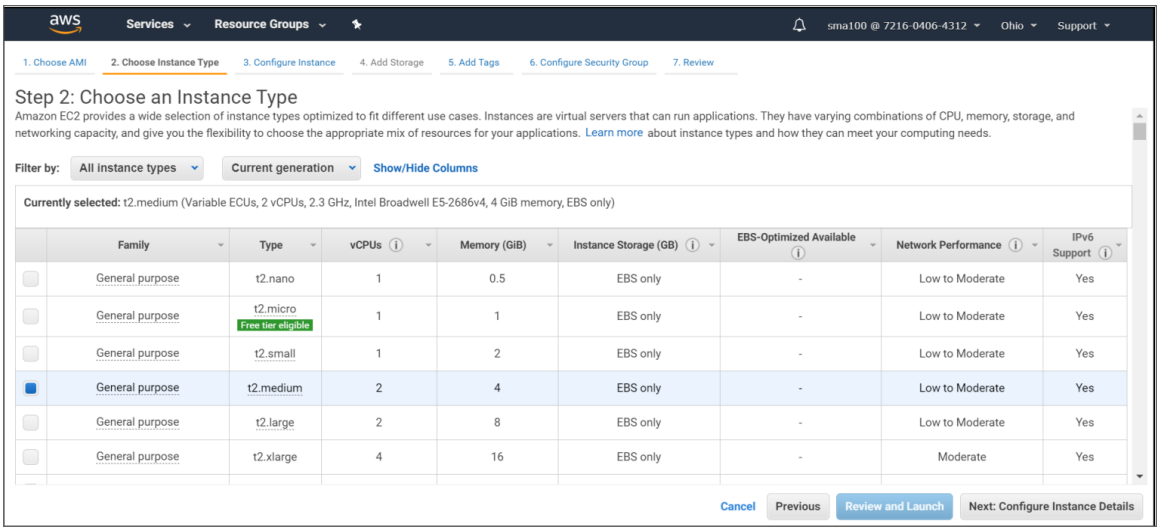


e. Select the SMA 500v for AWS build, this is a file such as: `sw_500v_aws_10.x.x.x_tip_xxsv_xxxxxxxd.xxxx.xx.xx-xx.xx.xx` and click **Next**.

3. Select the settings for the instance:

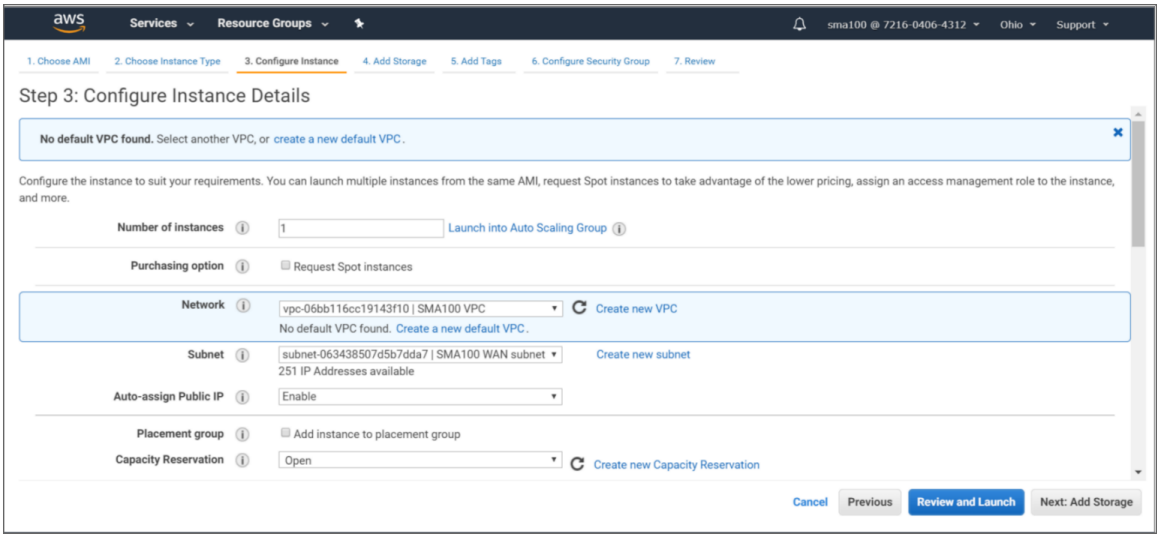
a. Choose an **Instance Type**, and click **Next**.

The higher the instance type, the better the performance. Select "**t2.medium**" (2 vCPUs and 4G memory) at minimum.



b. On the **Configure Instance Details** page, configure the following options and click **Next**:

- Network
- Subnet
- Enable **Auto-assign Public IP**



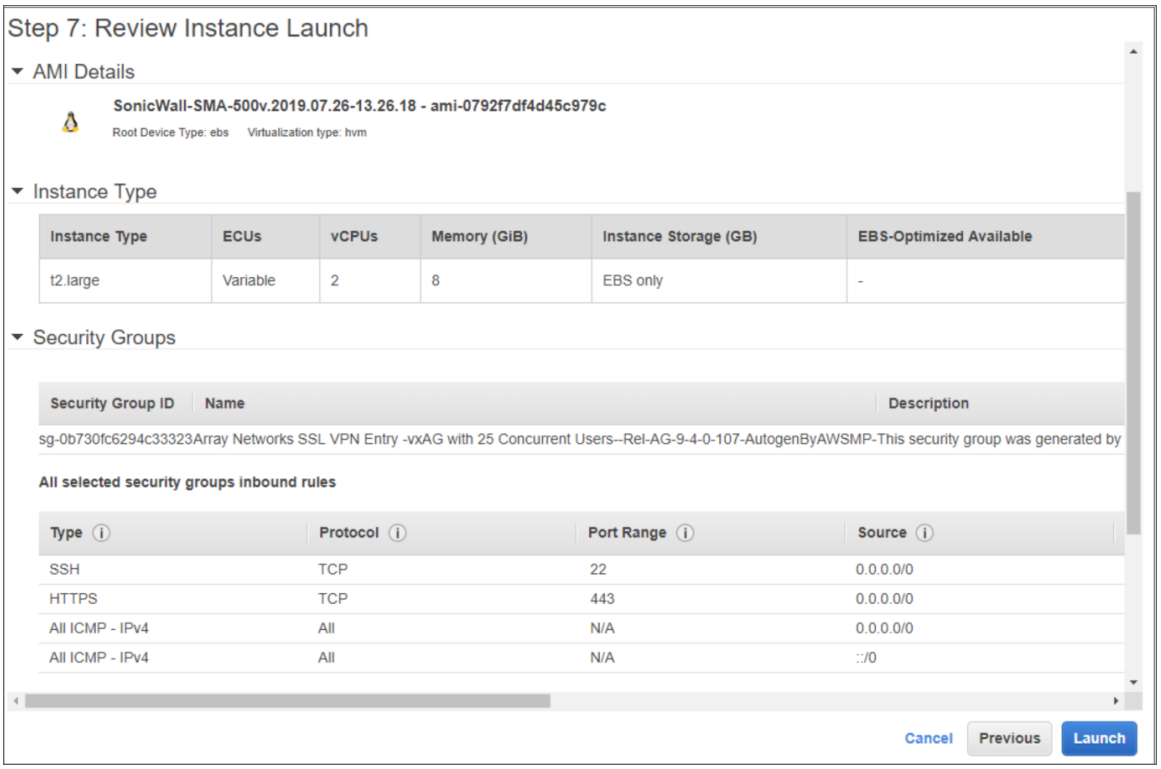
c. On the **Add Storage** page, You can add new volume of storage for your instance if needed. The default disk storage value is set as 32 GB. Click **Next**.

d. On the **Add Tags** page, you can add tags if needed. Click **Next**.

e. On the **Configure Security Group** page, add rules that control the traffic for your instance and then click **Next**.

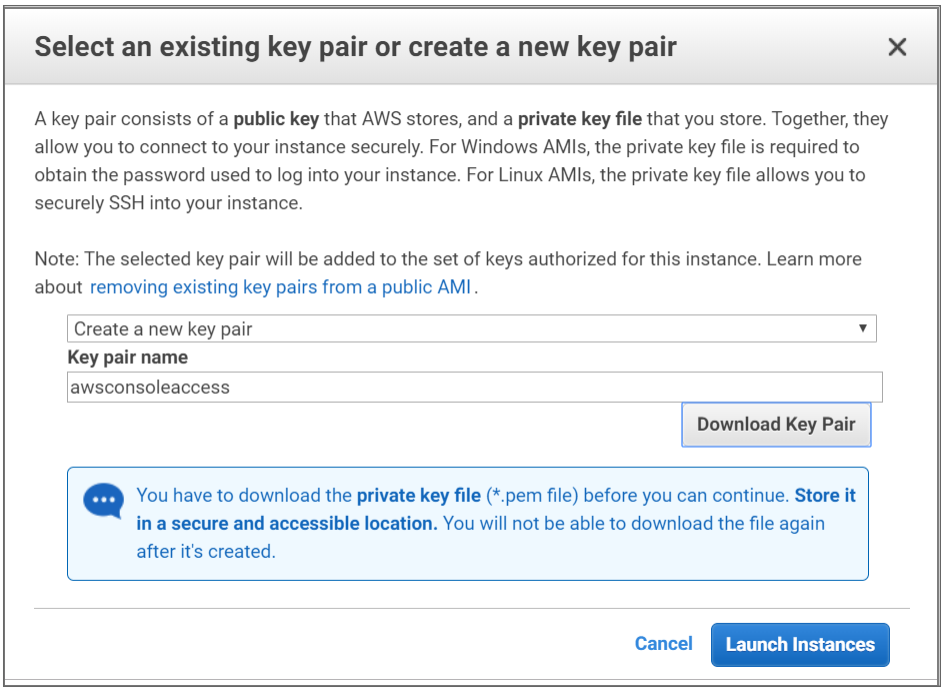
The security group should at least open port 22 and 443; 22 is for console access with ssh, 443 is for web&vpn access.

4. Review the instance configuration, and click **Launch**.



5. Create a new key pair and download the key pair file before continuing. Store the private key file in a secure and accessible location.

   ⓘ | **IMPORTANT:** You cannot download the key pair after the instance is launched.



6. Click **Launch Instances**.

   After the SMA 500v for AWS instance is launched, you can access the appliance from a browser. To read how to access the SMA 500v for AWS through a browser, see *Connecting to the Web Interface*.

   The console can be accessed with an ssh command. There are two types of users; 'admin' as the basic settings for view/configure, and 'sonicwall' to log in to file system. It functions the same as the 'root' user in the physical firmware. To read more, see *Connecting to the Command Line Interface*.

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Configuring the SMA 500v for AWS Virtual Appliance

This section describes how to power on and configure basic settings on the SMA 500v for AWS Virtual Appliance, including virtual hardware settings and networking settings.

Topics:

Powering the Virtual Appliance On or Off

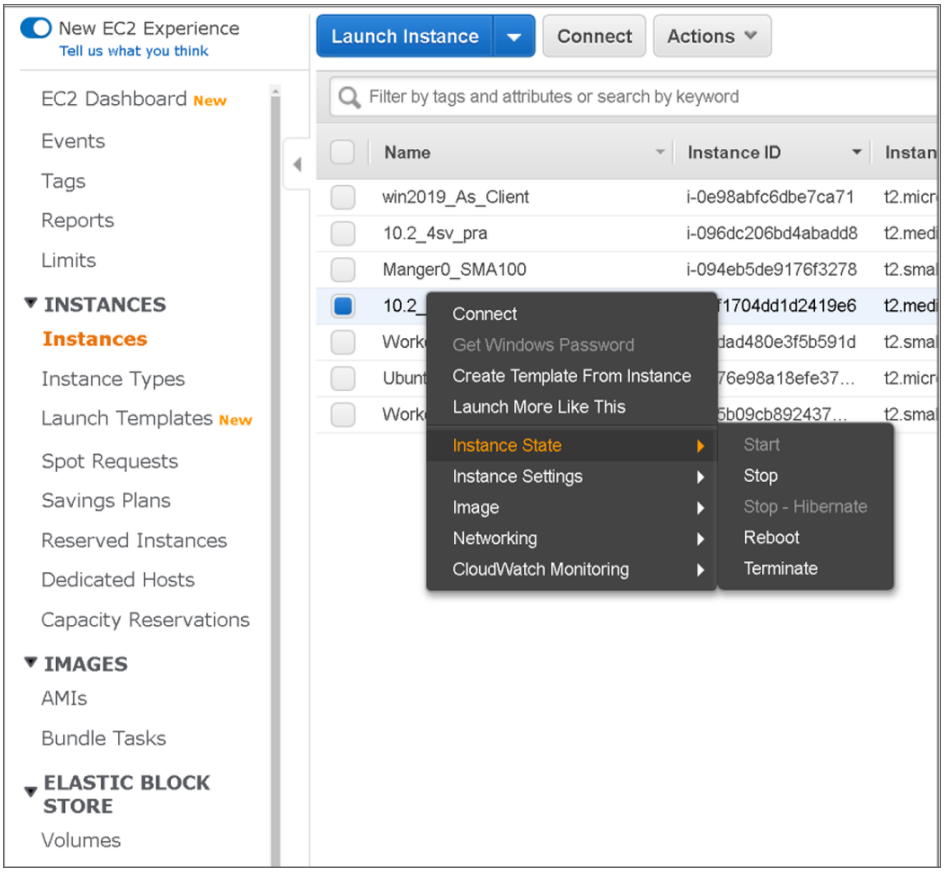
To Start, Stop, Reboot, or Terminate the instance:

1. In the EC2 console, click **Instances** in the AWS left pane. All your Amazon machine instances are displayed, along with their EC2 Instance IDs.

   ⓘ | **NOTE:** The ***Instance ID*** is the default password for the administrator account.

2. Right-click on the SMA 500v for AWS AMI instance. In the right-click menu, click **Instance State** and select one of:
   - **Start**
   - **Stop**
   - **Stop - Hibernate**
   - **Reboot**

- **Terminate**



More information on how to start or stop an instance is available on AWS website:

http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/Stop_Start.html

Connecting to the Web Interface

The SMA 500v for AWS virtual appliance always starts with the private IP address automatically assigned by EC2 using DHCP addressing. EC2 also automatically assigns a public IP address to allow access from the internet.

ⓘ **NOTE:** The public IP address assigned by EC2 can change across reboots. To preserve the same public IP address, configure an **Elastic IP** for the instance. More information on Elastic IP addresses is available here: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html

To access the SMA 500v for AWS management web interface over HTTPS:

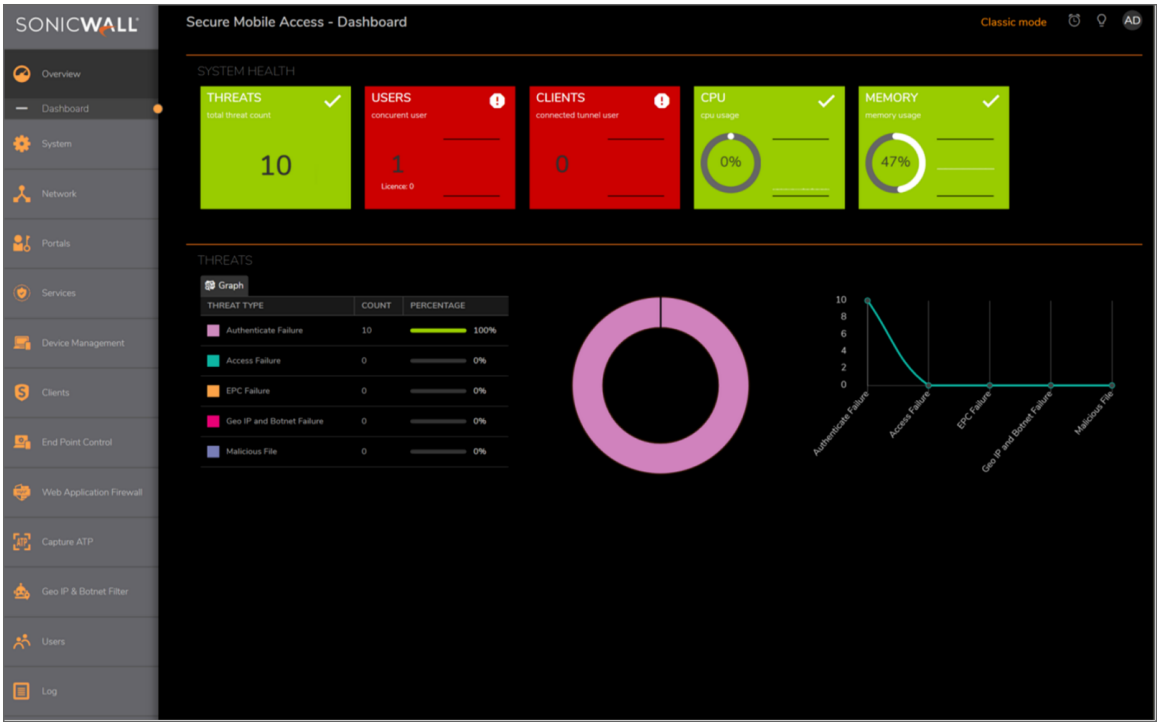
1. Launch a browser and navigate to the SMA 500v for AWS public IP. We use default port 443 to access the SMA 500v for AWS appliance.

NOTE: To locate the public IP address of your SMA 500v for AWS instance, click the SMA 500v for AWS instance on the **Instances** page in AWS EC2 console.

`https://<SMA 500v for AWS Public IP>/`

2. On the web interface login page, enter the default credentials and then click **Login**.
   The default credentials are:
   - Default user name = ***admin***
   - Default password = **password**

The SMA 500v for AWS virtual appliance management interface displays.



3. You can now register the SMA 500v for AWS and begin management and configuration.
   See the *Secure Mobile Access Administration Guide* for configuration information.

Connecting to the Command Line Interface

The Command Line Interface (CLI) is a text-only mechanism for interacting with the SMA 500v for AWS virtual appliance by typing commands to perform specific tasks. The CLI can be launched over SSH.

To connect to the SMA 500v for AWS over SSH:

1. Click the SMA 500v for AWS instance on the **Instances** page in AWS EC2 console.
2. Copy the **Public IP address** of the SMA 500v for AWS appliance.

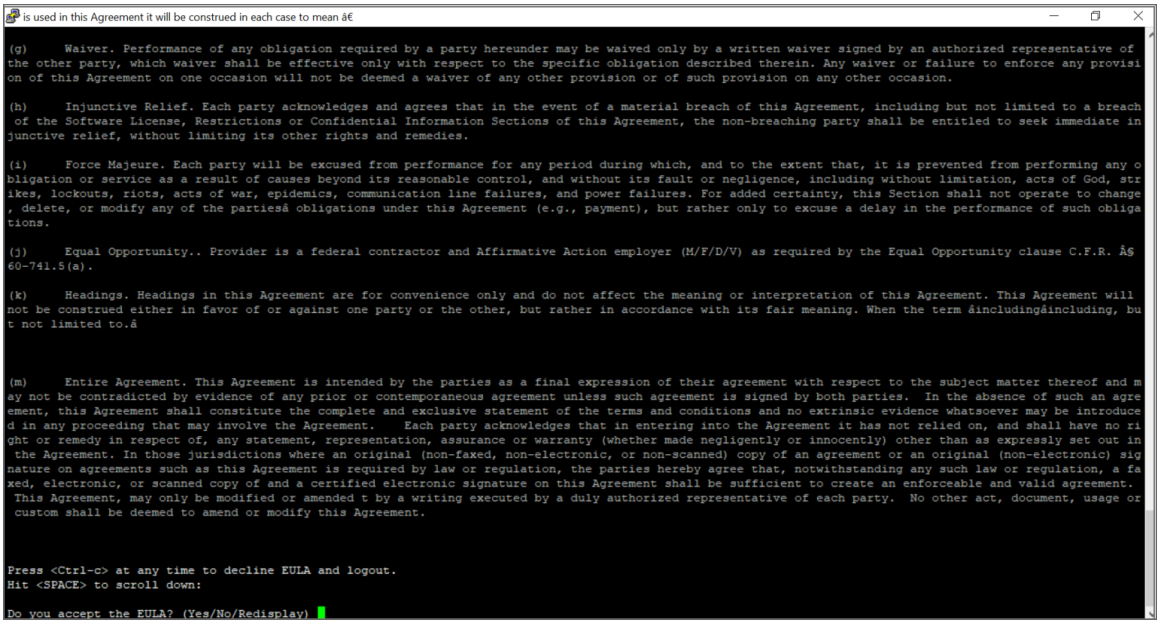
3. In an SSH application, type in the command using your AWS private key to authenticate:
   - `ssh -i AWSPrivateKey.key admin@<SMA 500v for AWS Public IP>`

   For example, `ssh -i Ohiokey.pem admin@13.64.78.65`
4. If you see a warning, type **yes** to proceed with the login.

```
The authenticity of host '40.78.97.223 (40.78.97.223)' can't be established.
ECDSA key fingerprint is SHA256:wIWc15lqVyvtPxbvOHjRD7OWDTOWXE0Vl9UJ1obsL9k.
Are you sure you want to continue connecting (yes/no)? yes
```

   After the SMA 500v for AWS software has fully booted, a login prompt is displayed.
5. Log in using the default administrator credentials for the ***admin*** account configured on the appliance:
   - Default user name = ***admin***
   - Default password = ***password***

   If an incorrect password is entered, the login prompt is displayed again. If the correct password is entered, the CLI is launched.
6. The first-time login requires the admin to review the End User Product Agreement (EUPA) and accept it before proceeding. Press **<SPACE>** to scroll down.



   Basic system information and network settings are displayed along with the main menu.

   Continue to Using the Command Line Interface.

Using the Command Line Interface

The Command Line Interface (CLI) is a text-only mechanism for interacting with a computer operating system or software by typing commands to perform specific tasks. It is a critical part of the deployment of the SMA 500v for

AWS Virtual Appliance, where basic networking needs to be configured from the console.

While the physical SMA 500v for AWS Virtual Appliance has a default IP address and network configuration that requires a client's network settings to be reconfigured to connect, as the network settings in the VMware virtual environment might conflict with the SonicWall defaults. The CLI utility remedies this by allowing basic configuration of the network settings when deploying the SMA 500v for AWS Virtual Appliance.

After the SMA 500v for AWS Virtual Appliance firmware has fully booted, a login prompt is displayed.

To access the CLI, login as admin. The password is the same as the password for the "admin" account configured on the appliance. The default is password.

```
sslvpn login: admin
Password: <password>
```

If an incorrect password is entered, the login prompt is displayed again. If the correct password is entered, the CLI is launched.

NOTE: The User input used in the examples highlighted in red indicates text entered by the user, there is no coloring of text done on the actual CLI.

Basic system information and network settings are displayed along with the main menu.

The main menu has six selections:

- Reboot
- Restart SSL VPN Services
- Logout
- Save TSR to Flash
- Display EULA

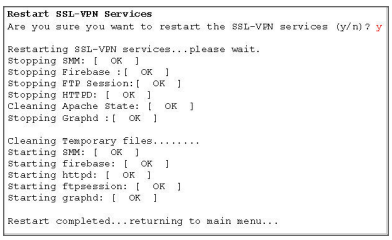
Reboot

Selecting this option displays a confirmation prompt and then reboots:

```
Reboot
Are you sure you want to reboot (y/n)?
```

Restart SSL VPN Services

This option displays a confirmation prompt, and then restarts the Web server and the related SSL-VPN daemon services. This command is equivalent to issuing the Easy Access Ctrl restart command.



Logout

The logout option ends the CLI session and returns to the login prompt.

Save TSR to Flash

Saves the Technical Support Report (TSR) to flash memory on the SMA 500v for AWS Virtual Appliance.

Display EULA

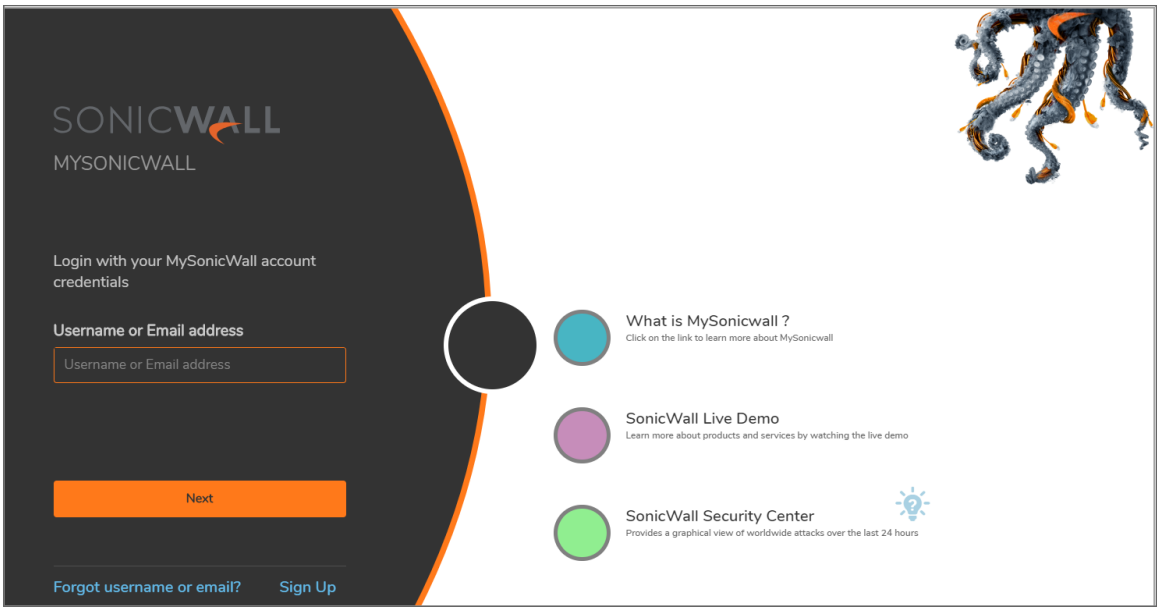
Displays the End User License Agreement (EULA) associated with the SMA 500v for AWS Virtual Appliance.

Configuring Settings on the Appliance Web Interface

This section provides procedures to configure the remaining appliance settings as you would for the SonicWall SMA 500v for AWS Virtual Appliance hardware appliance.

To complete the host configuration:

1. Launch a browser and enter the URL of the virtual appliance.
2. On the appliance interface login page, type in the default credentials and then click **Login**.

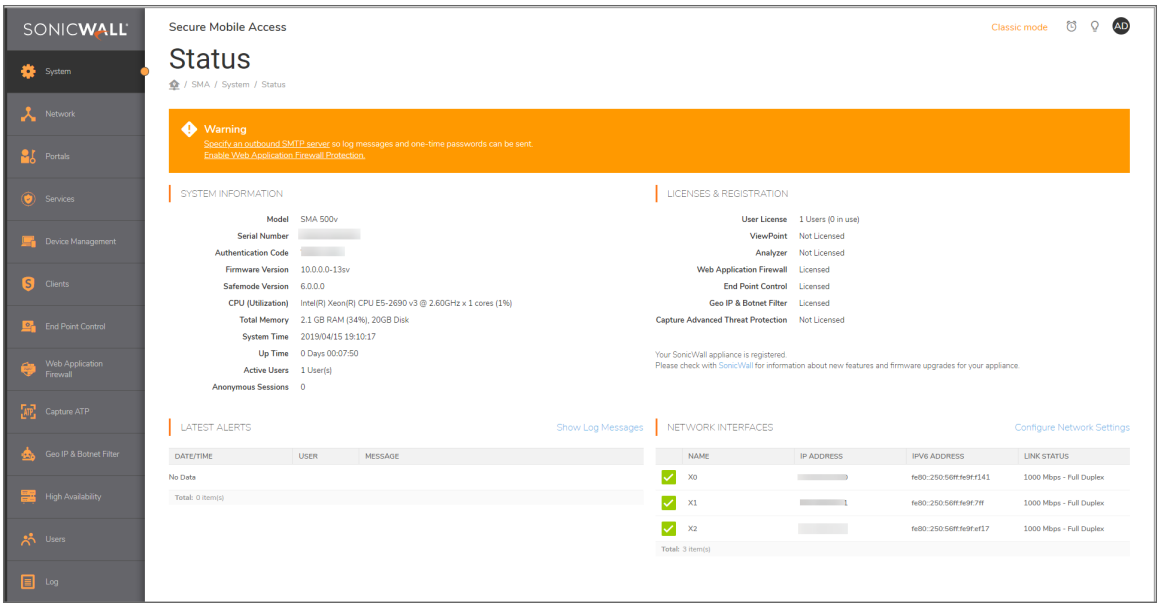


The default credentials are:

User - *admin*

Password - *password*

After you log in, the SMA 500v for AWS Virtual Appliance management interface displays.



3. Configure your settings for the SMA 500v for AWS.

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Licensing and Registering Your Appliance

This section contains information about licensing and registering yourSMA 500v for AWS Virtual Appliance.

You must purchase a license and register your SMA 500v for AWS before first use. Registration is performed using the management interface. After the registration is completed, the SMA 500v for AWS is licensed and ready to use. For the 30-Day Trial Virtual Appliance registration process, refer to Registering the 30-day Trial Virtual Appliance.

NOTE: The SMA 500v for AWS shares the same SKU and license structure as the SMA 500v for AWS. After you have purchased an SMA 500v for AWS Virtual Appliance from MySonicWall, you can use the serial number and authorization code you get to register the SMA 500v for AWS or for SMA 500v for AWS. However, you cannot use the same serial number and authorization code to register both.

SMA 500v for AWS provides user-based licensing. By default, the virtual appliance comes with a 5-user license. Extra licenses can be added in 5, 10, and 25 user denominations, up to a maximum that allows for 50 concurrent user sessions.

Licensing is controlled by SonicWall's license manager service, and customers can add licenses through their MySonicWall accounts. Unregistered units support the default license allotment for their model, but the unit must be registered in order to activate additional licensing from MySonicWall.

License status is displayed in the SMA 500v for AWS Virtual Appliance management interface, on the Licenses & Registration section of the **System > Status** page.

Communication with the SonicWall Licensing Manager is necessary while using the SMA 500v for AWS Virtual Appliance, and requires Internet access.

If a user attempts to log in to the Virtual Office portal and there are no more available user licenses, the login page displays the error, "No more User Licenses available. Please contact your administrator." The same error is displayed when a user launches the NetExtender client when all user licenses are in use. These login attempts are logged with a similar message in the log entries, and displayed in the **Log > View** page. You can add user licenses if this occurs regularly. For occasional spikes in remote access needs, you can purchase a Spike License to temporarily increase the number of remote users your virtual appliance can support. See the *SMA Administration Guide* for more information.

Topics:

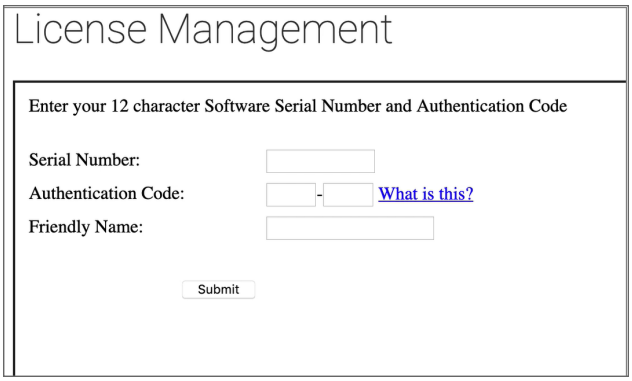
Registering the SMA 500v for AWS

After you have installed and configured the network settings for your SMA 500v for AWS Virtual Appliance, you can log into the management console and register it to your MySonicWall account. Registration of your SonicWall SMA 500v for AWS Virtual Appliance follows the same process as for other SonicWall hardware-based appliances.

ⓘ | **NOTE:** System functionality is extremely limited when registration is not completed.

To register your SMA 500v for AWS Virtual Appliance:

1. Log in to your SMA 500v for AWS. Navigate to the **System > Licenses** page.
2. Under **Manage Security Services Online**, click **Activate, Upgrade, or Renew services**. This should take you to a MySonicWall login.
3. Enter your MySonicWall.com account username or email address and password in the appropriate fields. Click **Submit**.
4. The **Dashboard** displays. Click the **Add Product** icon in the top button bar.



5. Enter the **Serial Number** or **Activation Key** for your new appliance. Click **Confirm** to finish the registration process.
6. You have successfully registered your SMA 500v for AWS. Click **Continue** to view the Manage Licenses screen or continue configuring other settings within the appliance.

De-registering an SMA 500v for AWS

You can de-register an SMA 500v for AWS directly from the Secure Mobile Access interface. Removing the registration puts the virtual appliance into an unregistered state and deletes the binding between it and its serial number in MySonicWall. At that point, you can use that serial number to register the same or another SMA 500v for AWS instance. Only one SMA 500v for AWS instance is allowed per serial number.

To De-register an SMA 500v for AWS:

1. Log into the Secure Mobile Access management interface on your SMA 500v for AWS Virtual Appliance.
2. Navigate to the **System > Settings** page.
3. Under **Settings Management**, click **Export Settings** to export a copy of your current configuration settings before de-registering your SMA 500v for AWS. This makes it possible to import these settings to another SMA 500v for AWS instance.

   CAUTION: Be sure to export your configuration settings before de-registering your SMA 500v for AWS. You cannot recover them after de-registration.
4. Navigate to **System > Licenses**.
5. Under **Manage Security Services Online**, click **Activate, Upgrade, or Renew services** and log into your MySonicWall account.
6. Navigate to **Product Management > My Products**, and select the SMA 500v for AWS you would like to de-register. Click **Delete Product** on the far right of the row. A dialog box appears requesting the reason.
7. Click **Confirm**.
8. If the de-registration is successful, the SMA 500v for AWS returns to the unregistered state.

6

Using the 30-day Trial Version

The SMA 500v for AWS Virtual Appliance is offered in a 30-day Trial version. The installation, registration, and functionality of the 30-Day Trial appliance is the same as the full SMA 500v for AWS, except for differences noted below in Deployment Considerations. An email is sent from the SonicWall License Manager to warn you when your trial is near its expiration date.

To upgrade to the full version:

- Purchase the full SMA 500v for AWS.
- Export your settings from the 30-day Trial version.
- Install and register the full SMA 500v for AWS.
- Import your settings.

You must install the SMA 500v for AWS software before registering your 30-Day Trial. For more information on obtaining the software, see Downloading the Virtual Appliance Software.

Topics:

Deployment Considerations

The following is a list of deployment considerations for the 30-day Trial version:

- The SMA 500v for AWS is disabled after 30 days.
- A maximum of two concurrent users are allowed to login to the appliance.
- Trial versions of Web Application Firewall are activated during registration.
- No paid add-on licenses or services can be added.
- Communication with the SonicWall Licensing Manager is required during the entire trial period.

- It is recommended to save a copy of your appliance's configuration settings before upgrading to the actual version of the SMA 500v for AWS.

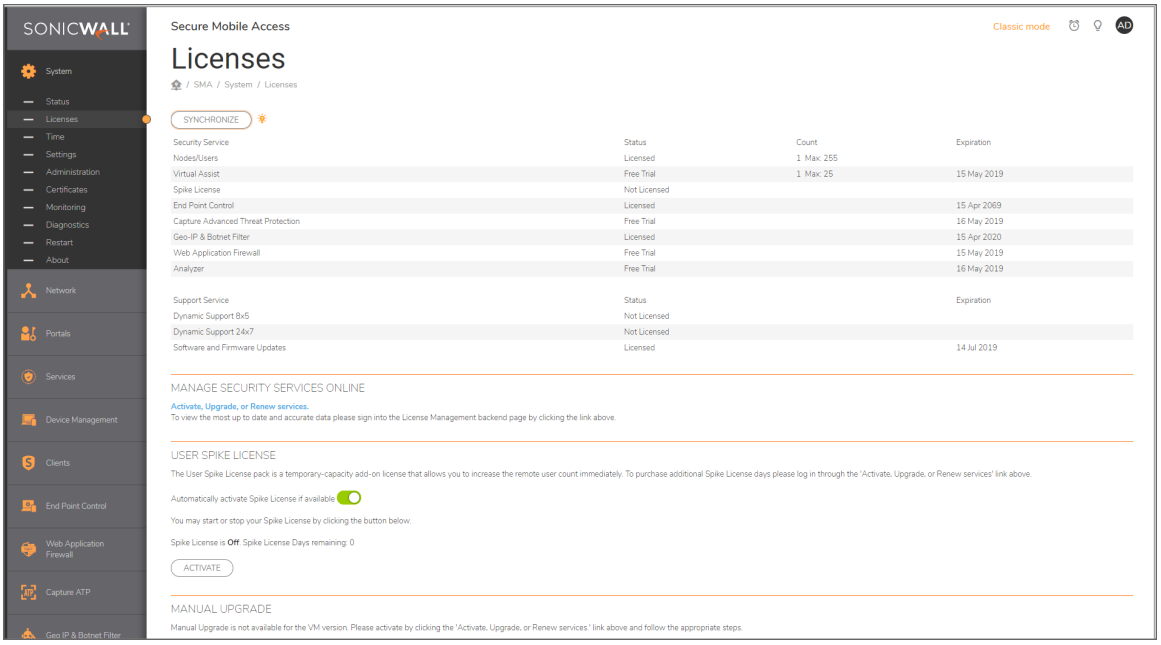
Registering the 30-day Trial Virtual

This section details registration of the SonicWall 30-day Trial Virtual Appliance.

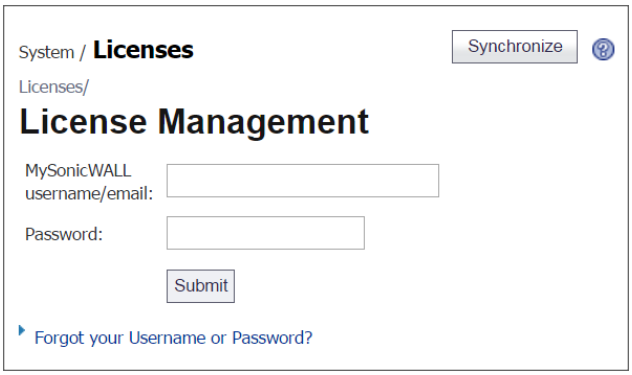
NOTE: Before starting the registration process, contact SonicWall Sales to obtain a serial number and authorization code.

To register the 30-day Trial:

1. Log in to your SMA 500v for AWS Virtual Appliance.
2. Navigate to the **System > Licenses** page.



3. Click the **Activate, Upgrade, or Renew services** link.



4. Enter your MySonicWall account name and password, then click **Submit**.
5. Enter the **Serial Number**, **Authentication Code**, and a **Friendly Name**.
6. Click **Submit**.
7. When the registration confirmation page displays, click **Continue**.

Converting a Free Trial License to Full

An SMA 500v for AWS instance installed as a 30-day free trial can easily be converted to a full production licensed SMA 500v for AWS instance.

To convert your free trial to a production version:

1. Purchase an SMA 500v for AWS license from a distributor. You should receive a fulfillment email with the new serial number and authentication code.
2. Log in to Secure Mobile Access on your free trial instance.
3. Navigate to the **System > Licenses** page.
4. Under **Manage Security Services Online**, click **Activate, Upgrade, or Renew services** and log in to your MySonicWall account.
5. Navigate to your **My Products** page, and select the free instance of the SMA 500v for AWS you would like to unregister. Click **Deregister**.
6. Click **OK** in the confirmation dialog. The SMA 500v for AWS returns to the unregistered state.
7. In MySonicWall , click to **Register** a new instance.
8. Enter the **Serial Number** and **Authentication Code** you received after purchasing your SMA 500v for AWS instance. Your SMA 500v for AWS is now registered.

7

Upgrading Your Appliance

Topics:

Obtaining the Latest Image Version

To obtain a new SMA 500v for AWS image file for your security appliance:

1. Go to www.MySonicWall.com and connect to your MySonicWall account.

   NOTE: If you have already registered your SMA 500v for AWS and you chose to be notified when new firmware updates are available on the **System > Settings** page, you are automatically notified of any updates available for your model.

2. Copy the new SMA 500v for AWS image file to a directory on your management station. For the Virtual Appliance, this is a file such as:

   `sw_500vaws_eng_10.x.x.x_10.x.x_p_xxsv_xxxxxxx.sig`

Exporting a Copy of Your Configuration

Before beginning the update process, export a copy of your SMA 500v for AWS Virtual Appliance configuration settings to your local machine. The **Export Settings** feature saves a copy of your current configuration settings on your SMA 500v for AWS, protecting all your existing settings in the even that it becomes necessary to return to a previous configuration state.

To save a copy of your configuration settings and export them to a file on your local management station, click **Export Settings** on the **System > Settings** page and save the settings file to your local machine. The default settings file is named `slvpnSettings.zip`.

NOTE: To more easily restore settings in the future, rename the .zip file to include the version of the SMA 500v for AWS image from which you are exporting the settings.

Uploading a New Image

SMA 500v for AWS Virtual Appliances do not support downgrading an image and using the configuration settings file from a higher version. To downgrade to a previous version of a SMA 500v for AWS image, you must create a new Virtual Machine or load a snapshot taken earlier.

To upload a new SMA 500v for AWS Virtual Appliance image:

1. Download the SMA 500v for AWS image file and save it to a location on your local computer.
2. Select **Upload New Firmware** from the **System > Settings** page. Browse to the location where you saved the SMA 500v for AWS Virtual Appliance image file, select the file, and click **Upload**. The upload process can take up to one minute.
3. When the upload is complete, you are ready to reboot your SMA 500v for AWS with the new SMA 500v for AWS Virtual Appliance image. Do one of the following:
    - To reboot the image with current preferences, click the boot icon for **New Firmware**.
    - To reboot the image with factory default settings, click the boot icon for **New Firmware** and select the check box to **Boot with factory default settings**.

ⓘ **NOTE:** Be sure to save a backup of your current configuration settings to your local computer before rebooting the SonicWall SMA 500v for AWS Virtual Appliance with factory default settings, as described in Exporting a Copy of Your Configuration Settings.

4. A warning message dialog displays that reads, “Are you sure you wish to boot this firmware?” Click **OK** to proceed. After clicking **OK**, do not power off the device while the image is being uploaded to the hard disk.
5. After successfully uploading the image to your SMA 500v for AWS, the login screen displays. The updated image information displays on the **System > Settings** 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. To access the Support Portal, go to https://www.sonicwall.com/support.

The Support Portal enables you to:

- View knowledge base articles and technical documentation
- View and participate in the Community forum discussions at https://community.sonicwall.com/technology-and-support.
- View video tutorials
- Access https://mysonicwall.com
- Learn about SonicWall professional services
- Review SonicWall Support services and warranty information
- Register for training and certification
- Request technical support or customer service

To contact SonicWall Support, visit https://www.sonicwall.com/support/contact-support.

About This Document

NOTE: A NOTE icon indicates supporting information.

IMPORTANT: An IMPORTANT icon indicates supporting information.

TIP: A TIP icon indicates helpful information.

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.

Secure Mobile Access 500v for AWS Getting Started Guide
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Software Version - 10.2
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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